

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary
Proposed Federally Enforceable State Operating Permit (FESOP)
MAT Asphalt, LLC
Chicago, Cook County, Illinois

Site Identification No.: 031600QKI
Application No.: 19020007

Schedule

Public Hearing Date: January 29, 2020
Public Comment Period Closes: February 28, 2020

Illinois EPA Contacts

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I. INTRODUCTION

MAT Asphalt, LLC has applied for a Federally Enforceable State Operating Permit (FESOP) for its plant located at 2055 West Pershing Avenue, Chicago. This plant requires an air pollution control operating permit because it is a source of emissions. The Illinois EPA has prepared a draft of the permit that it would propose to issue for the plant. However, before issuing the permit, the Illinois EPA is holding a public comment period to receive comments on this proposed action and the terms and conditions of the draft permit that it would propose to issue.

II. SOURCE DESCRIPTION

MAT Asphalt, LLC is a hot mix asphalt plant. The emission units at this plant that require an operating permit are shown in Table 1, below.

Table 1. Listing of Non-Exempt Emission Units Located at the Source.

Emission Unit and Description	Construction Date (and Date Last Modified)
One (1) 400 Ton/hr Natural Gas/Distillate Oil-Fired Drum Mix Asphalt Plant Mixer controlled by a Baghouse with Knockout Box and Fabric Filter	October, 2017
Three (3) 35,000-gallon Asphaltic Cement Storage Tanks	October, 2017
Five (5) 300 Ton Loadout Silos	October, 2017
Five (5) Asphalt Plant Conveyors (one enclosed conveyor associated with RAS transporting)	October, 2017
Two (2) Asphalt Plant Screens	October, 2017
One (1) 150 Ton/hr Portable Crusher	October, 2017
One (1) Crushing Plant Screen	October, 2017
Four (4) Crushing Plant Conveyors (one enclosed)	October, 2017
Six (6) Aggregate Bins	October, 2017
Two (2) Reclaimed Asphalt Pavement (RAP) Bins	October, 2017
One (1) Reclaimed Asphalt Shingles (RAS) Bin	October, 2017
Fugitive Emissions from Truck Traffic on Paved and the Loading of Storage Piles	October, 2017

These units are sources of emissions because Carbon Monoxide (CO), Particulate Matter (PM), Particulate Matter less than 10 Microns (PM₁₀), Particulate Matter less than 2.5 Microns (PM_{2.5}), Nitrogen Oxides (NO_x) and Volatile Organic Material (VOM) are generated by the asphalt plant (drum dryer) as the result of by-products of combustion. The CO, NO_x and VOM emissions result primarily from incomplete combustion of the fuel, and from heating and mixing of the liquid asphalt cement inside the drum mixer. The PM emissions are primarily the result of the drying of the cold feed materials.

The following table lists annual emissions (tons) of pollutants emitted from this source, as reported in the last three Annual Emission Reports (AER) sent to the Illinois EPA:

Table 2. Actual and Potential (as limited by permit) Emissions of the Source.

Pollutant	Actual Emissions			PTE
	2016 (tons)	2017 (tons)	2018 (tons)	as limited by permit (tons/year)
Carbon Monoxide (CO)	No Reported Emissions	No Reported Emissions	No Reported Emissions	58.98
Nitrogen Oxides (NO _x)				24.48
Particulate Matter (PM)				90.57
Particulate Matter less than 10 Microns (PM ₁₀)				27.69
Particulate Matter less than 2.5 Microns (PM _{2.5})				14.24
Sulfur Dioxide (SO ₂)				4.90
Volatile Organic Material (VOM)				22.84
				4.11

This source also contains emission units and activities that are exempt from permitting under 35 Ill. Adm. Code 201.146 and the emissions from such units are not limited by the conditions of the draft permit. These emission units include:

No emission units were identified in the application as being exempt from the permitting requirements under 35 Ill. Adm. Code 201.146.!

As shown in Table 2, above, the margin of compliance between the actual emissions reported by the source during the last three years and the potential emissions as limited in the draft FESOP is more than 80 % for CO and NO_x, 86 % for PM₁₀, 83% for PM_{2.5} and 82% for VOM, which further minimizes the likelihood of the source exceeding its permit limits or the applicable major source thresholds.

In cases where the potential emissions of exempt emission units may contribute to the source exceeding major source thresholds (for example, if the emission limits in the FESOP are 90% or more of the applicable major source thresholds and the exempt units' PTE is 5% or more of the threshold) the Illinois EPA has established limits on such emission units in the draft FESOP that would normally be exempt from permitting. The permitting exemptions in 35 Ill. Adm. Code 201.146 do not relieve the owner or operator of any source from any obligation to comply with any other applicable requirements.

III. GENERAL DISCUSSION

FESOPs are federally enforceable, that is, the terms and conditions of the permits can be enforced by the United States Environmental Protection Agency (USEPA) under federal law, as well as by Illinois government and the public under state law. These permits can establish federally enforceable limitations on the operation and emissions of a source that restrict the potential emissions of the source.

The source may operate this plant under a FESOP because the actual emissions of the plant are below the levels at which the plant would be considered a major source under Title V of the federal Clean Air Act. However, in the absence of federally enforceable limitations, the plant's potential emissions would be such that the plant would be considered a major source. The permit acts to restrict the plant potential emissions so that it need not be considered a major source. As a result, the source does not need to obtain a Clean Air Act Permit Program (CAAPP) permit for the plant, as would otherwise be required.

The FESOP limits the operation and annual emissions of the plant to below the major-source-thresholds of 100 tons for CO, PM₁₀, and PM_{2.5} and 50 tons/year for NO_x and VOM. The potential emissions of other pollutants (e.g., SO₂ and Hazardous Air Pollutants) from the plant are small enough that no restrictions are needed to avoid being a major source of these pollutants.

IV. APPLICABLE EMISSION STANDARDS

All emission units in Illinois must comply with state emission standards adopted by the Illinois Pollution Control Board (Board). These emission standards represent the basic requirements for sources in Illinois. The Board has specific standards for particulate matter under 35 Ill. Adm. Code Part 212. The Drum-Mix Asphalt Plant, Silos with Loadout, and Crushing Plant are subject to 35 Ill. Adm. Code Part 212 Subpart B (Visible Emissions), which limits the opacity of emissions to 30%, Subpart K (Fugitive Particulate Matter), which prohibits the emissions of fugitive particulate matter from crossing the property line of the source, and Subpart L (Process Emission Units), which sets a limit on emissions of PM based on the process weight rate of each emission unit.

The Drum-Mix Asphalt Plant is subject to the New Source Performance Standards (NSPS) for Hot Mix Asphalt Facilities, 40 CFR 60 Subpart I. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. 40 CFR 60 Subpart I limits PM emissions to 90 mg/dscm (0.04 gr/dscf) and 20 percent opacity. The source has verified compliance with these requirements via performance testing conducted on December 11, 2018.

The application shows that the plant is in compliance with applicable state and federal emission standards.

V. CONTENTS OF THE PERMIT

The permit that the Illinois EPA is proposing to issue would continue to identify the specific emission standards that apply to the emission units at the plant. As explained, the drum mix asphalt plant is subject to the New Source Performance Standards (NSPS) for Hot Mix Asphalt Plants, 40 CFR 60 Subpart I, which limits PM emissions to 90 mg/dscm (0.04 gr/dscf) and 20 percent opacity. The Drum-Mix Asphalt Plant and Crushing Plant are subject to 35 Ill. Adm. Code Part 212 Subpart B (Visible Emissions), which limits the opacity of emissions to 30%, Subpart K (Fugitive Particulate Matter), which prohibits the emissions of fugitive particulate matter from crossing the property line of the source, and Subpart L (Process Emission Units), which sets a limit on emissions of PM based on the process weight rate of each emission unit. The conditions of this permit are intended to ensure that the source continues to comply with applicable emission standards.

The permit would also contain limitations and requirements to assure that this plant is operated as a non-major source. The permit would limit the operation and annual emissions of the plant to below the major-source-thresholds of 100 tons for CO, PM₁₀, and PM_{2.5} and 50 tons/year for NO_x and VOM. (Annual emissions of other pollutants from the plant are well below the 100 ton or 50 ton major source threshold.)

The permit would also set limitations on the amount of asphalt produced, the amount of aggregate processed, and the types of fuel to be combusted in the asphalt plant.

The permit conditions would also continue to require appropriate compliance procedures, including inspection practices as well as recordkeeping and reporting requirements. The source must carry out these procedures on an on-going basis to

demonstrate that the plant is being operated within the limitations set by the permit and the plant's emissions are being properly controlled.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the source has met the requirements for issuance of its permit. The Illinois EPA is therefore proposing to issue the permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.