Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Renewal of the General Federally Enforceable State Operating Permit (FESOP) for Drum Mix Asphalt Plants

General Permit Nos.: G2951A2 (Drum-Mix Asphalt Plant)

Schedule
Public Comment Period Begins: April 13, 2026
Public Comment Period Closes: May 13, 2026

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I. INTRODUCTION

The Illinois EPA has prepared a draft permit of an updated General Permit that will apply to the operation of drum mix asphalt plants in Illinois that are required to hold a Federally Enforceable State Operating Permit (FESOP). The previous General FESOP for these sources expired in August 2024, having been issued a decade earlier and subject to a 10-year term of effectiveness. Before taking final action on this General FESOP, the Illinois EPA is holding a public comment period on the proposed draft permit. This document provides an overview of drum mix asphalt plants, permitted emissions that will be authorized by the permit, as well as applicable emission standards and other related requirements that are found in the permit.

II. SOURCE DESCRIPTION

A drum mix asphalt plant is used to manufacture hot-mix asphalt for use as pavement in road construction projects. The process consists of blending cold feed materials (sand, gravel, screenings, chips, etc.) uniformly and adding sufficient hot asphalt oil to bind the mixture together. After the asphalt mix is manufactured at a plant, it is transported to various locations where it is to be applied.

The following is a general description of an asphalt plant's manufacturing process:

- Aggregate is hauled from storage piles and placed in cold-feed hoppers.
- The aggregate is metered from the hoppers onto a conveyer belt and transported into a rotary dryer (typically gas- or oil-fired) that is equipped with flights designed to shower the aggregate inside the drum to promote drying efficiency.
- The aggregate exits the dryer to a bucket elevator and from there is transferred to a set of vibrating screens, where it is sorted by size and dropped into individual “hot” bins according to size.
- To control aggregate size distribution, the operator opens various hot bins over a weigh hopper until the desired mix and weight are obtained.
- Concurrent with aggregate weighing, to achieve the desired aggregate-to-asphalt cement ratio, liquid asphalt cement is pumped from a heated storage tank to an asphalt bucket.
- The aggregate from the weigh hopper is dropped into a mixer (pug mill) and dry-mixed.
- Liquid asphalt is then dropped into the pug mill and mixed.
- In conjunction with the production of asphalt, an aggregate processing plant may exist, including crushers, screens, conveyors and other processing equipment. An aggregate processing plant would produce or refine the nonmetallic minerals to be used as an ingredient in the asphalt mix. Large chunks of rock, recycled concrete, or Reclaimed Asphalt Pavement (RAP) are fed into a series of crushers and screening units where the aggregate is crushed into usable sizes and separated into

storage piles or bins. At plants with aggregate processing operations RAP typically is conveyed directly to the pug mill from storage hoppers and combined with the hot aggregate.

- The finished asphalt is conveyed to a hot storage silo or dropped directly into a truck for delivery to job sites.

Emissions:

- The criteria pollutants emitted from a drum mix asphalt plant along with the relevant emissions units and permitted allowable emissions are, noted in the table below:

	Annual Emissions (Tons/Year)					
Emissions Units or Sources	CO	NO_x	PM*	$PM_{10}/PM_{2.5}$	SO_2	VOM
Drum Mixer/Dryer	57.85	24.48	14.69	10.24	25.81	14.24
Asphalt Silo Filling	0.53	----	0.26	0.26	----	5.43
Truck Loadout	0.60	----	0.23	0.23	----	1.85
Asphalt Plant Material Handling	-----	----	7.12	2.39	----	-----
Asphalt Heaters and Boilers	5.15	8.77	0.86	-----	18.64	0.37
3 Crushers	----	----	0.77	0.34	----	----
9 Screens	----	----	4.21	1.42	----	----
30 Conveyors	----	----	0.89	0.29	----	----
12 Storage Tanks	----	----	----	-----	----	3.00
Fugitive Particulate Matter	----	----	70.00	25.00	----	----
	64.13	33.25	99.03	40.17	44.45	24.89

*PM – includes all of PM_{10} and $PM_{2.5}$

III. APPLICABLE EMISSION STANDARDS

A drum mix asphalt plant must comply with state emission standards adopted by the Illinois Pollution Control Board (Board) in its Subtitle B air pollution regulations. These emission standards represent the basic requirements for emission sources in Illinois. The Board has adopted specific standards for particulate matter (PM) under 35 Ill. Adm. Code Part 212, Subparts B, E, K and L; sulfur dioxide (SO2) standards under 35 Ill. Adm. Code Part 214 Subpart B and K; and volatile organic material (VOM) standards under 35 Ill. Adm. Code Part 215 Subpart B, K and Y.

The Board has specific emission standards for sources emitting VOM from stationary

sources located in Chicago metropolitan counties/ townships, which is comprised of Cook, DuPage, Kane, Lake, McHenry and Will counties and Aux Sable Township and Goose Lake Township in Grundy County and Oswego Township in Kendall County, under 35 Ill. Adm. Code Part 218 Subpart B, G, and Y. For sources located in Metro East counties/ townships, VOM standards apply under 35 Ill. Adm. Code Part 219 Subpart B, G and Y.

A drum mix asphalt plant must also comply with applicable federal regulations promulgated by the U.S. Environmental Protection Agency (USEPA) under the Clean Air Act, such as 40 CFR 60 Subparts A, OOO, and I; 40 CFR 63, Subparts A and CCCCCC.

IV. CONTENTS OF THE PERMIT

The General FESOP identifies the state and federal emission standards that apply to the emission units at a drum mix asphalt plant and includes provisions to ensure compliance.

The General FESOP would contain emission limitations to assure that this plant is operated as a non-major source. This is a requirement for a facility operating as a FESOP source, as they would otherwise be required to obtain a major source operating permit. For areas other than the Chicago and Metro East areas, the General FESOP limits Carbon Monoxide (CO), Nitrogen oxides (NO_x), and SO_2 each to less than 100 tons per year (tpy). In the Chicago area and Metro East area the General FESOP limits CO, NO_x and SO_2 each to less than 100 tpy, 50 tpy and 100 tpy, respectively. In addition, this General FESOP would limit the operation and annual emissions of the plant to less than 25 tpy of VOM, 10 tons for an individual Hazardous Air Pollutant (HAP) and 25 tons for combined HAPs. The fugitive particulate matter from an emissions source or activity that emit PM and PM_{10}/$PM_{2.5}$ is limited to 70 tpy and 25 tpy, respectively.

Compliance with annual limits outline above shall be determined on a monthly basis from the sum of the facility's emissions data for the current month plus the preceding 11 months (running 12-month total).

The draft permit would also set operational limitations on:

- The amount of asphalt produced.
- The amount of fuel combusted in heaters and boilers associated with an asphalt plant.
- The amount of fuel stored in storage tanks at the asphalt plant.
- The amount of aggregate material processed in any processing plant.

The Permittee shall perform all applicable testing and monitoring for the affected drum mix asphalt plant as specified by state and federal testing and monitoring requirements.

The General FESOP would also require appropriate compliance measures, including

inspection practices as well as recordkeeping and reporting requirements. The source must carry out these requirements on an on-going basis to demonstrate that the facility is being operated within the limitations set by the permit and facility's emissions are being properly controlled. In the event of an odor nuisance at a facility, the Permittee must take appropriate and necessary steps to eliminate the odor nuisance, which is generally prohibited under the Illinois Environmental Protection Act to the extent that an unreasonable interference occurs with the enjoyment of life or property. See, 415 ILCS 5/3.115 and 9(a).

V. CHANGES IN DRAFT PERMIT AS COMPARED TO PREVIOUS PERMIT

The draft permit expressly authorizes the use of on-specification (on-spec) used oil as fuel in the drum mixer and drum dryer. See, Special Condition 1(c). This authorization is conditioned upon the facility previously conducting emissions testing while using the used oil as fuel and, further provided, that the facility has verified compliance with the Pollution Control Board's used oil specification requirements of 35 Ill. Adm. Code 739.111.

For a facility combusting distillate oil or residual oil or on-specification used oil, if the last emissions testing conducted on the Drum Mix Asphalt plant is more than five 5 years old, the permit requires the facility to conduct emissions testing for Opacity, PM, CO, NO_x, and SO_2 to show compliance with permitted emission rates. The initial emissions testing must be undertaken within 180 days permit issuance of this General FESOP permit, and again in the last half of the permit term, subject to extension if the facility is shut down for the season. Similar emissions testing requirements are incorporated into the permit for a facility combusting natural gas or liquified natural gas that are more than 10 years old, or if a Drum Mix Asphalt plant switches fuel and has not previously conducted stack testing using the same type of fuel within the last 5 years. See generally, Special Condition 12(a)(i)-(iii).

For a facility that is not subject to the source categories and geographical area requirements of Section 212.302, the permit requires the facility to maintain and operate its equipment (including storage piles, conveyor loading operations, traffic areas, and other equipment) in a manner consistent with good pollution control practice for minimizing fugitive dust at the facility. This requirement is consistent with the source's obligation under Subpart A of 40 CFR 60.11(d) of the New Source Performance Standards. To assure practical enforceability, the draft permit requires the facility to adopt and implement a fugitive dust plan that meets the aforementioned standard for good pollution control practices and that will assure facility compliance with 35 Ill. Adm. Code 212.301. See generally, Special Condition 8(d)(xiii)-(xiv).

VI. REQUEST FOR COMMENTS

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 public hearing in accordance with 35 IAC Part 166.