

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT
NSPS - SOURCE

PERMITTEE

Allied Asphalt Paving Company
Attn: Daniel Plote
1100 Brandt Drive
Elgin, Illinois 60120

Application No.: 89020062 I.D. No.: 031063AAJ
Applicant's Designation: DRUM MIX Date Received: February 7, 2000
Subject: Asphalt Plant and Crushing Plant
Date Issued: September 7, 2000 Expiration Date: September 7, 2005
Location: 254 Old Higgins Road, Des Plaines

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a drum mix asphalt plant controlled by a baghouse with a natural gas fired drier, three (3) crushers (Norberg and 2 impactors), and six (6) conveyors pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s)

- 1a. This federally enforceable state operating permit is issued to limit the emissions of volatile organic material (VOM) and carbon monoxide (CO) from the asphalt plant to less than major source thresholds of 25 and 100 tons per respectively, as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes the current permit(s) issued for this location.
- 2a. This Asphalt Plant is subject to New Source Performance Standards (NSPS, 40 CFR 60, Subparts A and I. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA and under a delegation agreement.
- b. The emissions from the Asphalt Plant shall not contain particulate matter in excess of 0.04 gr/dscf and shall not exhibit 20% opacity or greater, pursuant to the NSPS, 40 CFR 60.92.
- c. At all times the Permittee shall also maintain and operate the Asphalt Plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS, 40 CFR 60.11 (d).
- 3a. The crushing equipment including screen and conveyors are subject to New

Source Performance Standards (NSPS), 40 CFR 60, Subparts A and OOO. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.

- b. Fugitive emissions of particulate matter from the crushers (except from truck dumping), shall not exceed 15 percent opacity, (40 CFR 60.672(c) and (d)).

c. At all times the Permittee shall also, to the extent practicable, maintain and operate these sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

4a. Operation of the Asphalt Plant shall not exceed the following limits:

Asphalt Concrete Production Rate: 600 tons/hr not to exceed 800,000 tons/yr

Asphalt Tank Heater Fuel Usage: 10.3 mmscf/year of natural gas

b. This permit is issued based on the use of natural gas for the dryer and asphalt tank heater. Use of any other fuel will require a revised permit.

c. At least once per week the Permittee shall inspect the asphalt plant's control equipment during its operation, to include enclosures and duct work, to ensure that it is operating properly.

d. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

e. Compliance with the annual limits immediately following the issuance date of this permit shall be determined using available data from the previous months.

5a. Operation of the equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Process Rate (Tons/Hr)</u>	<u>Annual Throughput (Tons/Year)</u>
Crushing	400	470,000
Conveyors (6 Transfer Points)	400	470,000

b. i. The moisture content of the aggregate as crushed shall be at least 1.5% by weight so as to reduce emissions of particulate matter.

ii. The Permittee shall show compliance with this requirement as follows:

A. The moisture content of a representative sample of the aggregate shall be measured at least once per week using ASTM Procedures (C566-89) for total moisture content of material. Compliance with this requirement may be presumed if moisture content of aggregate as shipped is at least 1.5%; or

- B. i. Water sprays shall be used at each crusher and on other emission units as necessary, except when weather conditions are below or expected to fall below freezing temperatures, to provide moisture that will reduce emissions of particulate matter.

- ii. The water supply to the spray equipment shall be equipped with a metering device used to determine water usage for the control of particulate matter emissions.
 - iii. Inspections of water spray equipment and operation (such as leaking, adequacy of flow, clogging of flow lines, etc.) shall be performed at least once per week when the facility is in operation, or
 - C. Water saturated materials mined below the water table are being processed.
- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
- d. Compliance with the annual limits immediately following the issuance date of this permit shall be determined using available data from the previous months.
- 6a. Within 90 days of a written request from the Illinois EPA or USEPA, pursuant to 35 Ill Adm. Code Section 201.282, the emissions and opacity of the dryer exhaust from the plant shall be measured by an approved testing service, during conditions which are representative of the maximum performance. The Illinois EPA or USEPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.
- b.
 - i. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Opacity	USEPA Method 9
Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Particulate Matter	USEPA Method 5
 - ii. A test shall consist of three separate runs each at least 60 minutes in duration. Compliance shall be determined from the average of the runs provided that the Illinois EPA or USEPA may accept the arithmetic mean of the two runs in circumstances described in 40 CFR 60.8(f).
- c. Testing shall be performed by a qualified independent testing service.
- d. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review and approval. A copy shall also be submitted to the USEPA. This plan shall describe the

specific procedures for testing, including:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

- ii. The conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum operating rate, the levels of operating parameters at or within which compliance is intended to be shown, if applicable, and the means by which the operating parameters for the process and any control equipment will be determined.
- e. The Illinois EPA or USEPA shall be notified prior to these tests to enable the Illinois EPA or USEPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the tests. The Illinois EPA or USEPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA or USEPA will not accept such notifications if it interferes with the Illinois EPA's or USEPA's ability to observe the testing.
- 7a. Within 90 days of a written request from the Illinois EPA or USEPA, pursuant to 35 Ill. Adm. Code Section 201.282, the opacity from an affected facility subject to the NSPS shall be measured during conditions which are representative of the maximum performance. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.
- b. i. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Opacity	USEPA Method 9
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- ii. A test shall consist of 30 sets of 24 consecutive observations.
- c. Testing shall be performed by a qualified independent testing service.
- d. The Illinois EPA or USEPA shall be notified prior to these tests to enable the Illinois EPA or USEPA to observe these tests. Written notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. This notification should include the conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum operating rate and also information of the person(s) who will be performing the test and their experience with similar tests.
- e. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the tests. The Illinois EPA or USEPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA

or USEPA will not accept such notifications if it interferes with the Illinois EPA's or USEPA's ability to observe the testing.

- 8a. The Permittee shall maintain operating and maintenance logs for the rotary dryer control system, including: operating data, maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.

- b. The Permittee shall maintain hourly records of the following items:
 - i. Asphalt dryer raw material feed rate (tons/hour).
 - ii. Type of aggregate processed including slag and recycled material.
 - iii. Asphalt dryer firing rate (mmBtu/hr) fuel type and consumption (gal/day or cu. ft/day).
 - iv. Asphalt concrete production (tons/day, tons/month and tons/year).
 - v. Asphalt tank heater fuel type and consumption (mmft³/month).
- 9. The Permittee shall maintain daily, monthly and yearly records of the following:
 - a. Production entering the crushers (tons/day, tons/month, tons/year).
 - b. Production entering the conveyors (tons/day, tons/month, tons/year).
- 10. The records required by this permit shall be retained at a readily accessible location at the plant for at least 3 years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request.
- 11. The assembly of this plant at a new location will require a construction permit for the new location. This permit must be obtained prior to commencing construction at the new location.
- 12. If there is an exceedance of the requirements of this permit as determined by the record required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the record keeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences. This report should be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section
P.O. Box 19276
Springfield, Illinois 62794-9276

The following special conditions are not federally enforceable:

- 13. This permit is issued based on negligible emissions of volatile organic

material from the four asphalt prime storage tanks. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

- 14a. The Final Report(s) for all tests shall be submitted within 180 days after the date of the test. The Final Report shall include as a minimum:

- i. General information describing the test, including the name and identification of the emission source which was tested, date of test, names of personnel performing the tests, and Illinois EPA or USEPA observers, if any;
- ii. A summary of results;
- iii. Description of test procedures, including description of sampling points, test equipment, and test schedule;
- iv. Detailed description of test conditions, including:
 - A. Process information, i.e., process rate, aggregate type, fuel type, and firing rate.
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
- v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

b. Submittals of information shall be made as follows:

- i. Notices of Test - one copy to Source Emission Test Specialist and one copy to the Regional Office.
- ii. Final Report - one copy to Source Emission Test Specialist, one copy to the Regional Office, and one copy to Permit Section.

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
4500 South Sixth Street
Springfield, Illinois 62706

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
The Eisenhower Tower
1701 First Avenue
Maywood, Illinois 60153

15. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
 - a. Asphalt production;
 - b. Crushing production; and

c. Fuel consumption and type

from the prior calendar year. If there have been no exceedances during the prior calendar year the Annual Emissions Report shall include a statement to that effect.

16. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including material handling or storage activity, beyond the property line of the emission source, pursuant to 35 Ill Adm. Code 212.301.
17. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the nuisance.
18. The following standard conditions are not federally enforceable:
Standard Conditions 3(a), 8, 9, 10, and 11.

The revisions do not relax testing, monitoring, recordkeeping, or reporting requirements contained in the federally enforceable conditions of this permit. This permit continues to assure that this source would not be a major source for purpose of CAAPP.

It should be noted that this permit has been revised to show current emission factors.

It should be noted that the four asphalt storage tanks are exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(n).

If you have any questions on this, please call Jim Kallmeyer at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JDK:jar

cc: Illinois EPA, FOS Region 1
Compliance Section
USEPA

Attachment A - Revised (Revised on June 18, 1996) - Emissions Summary

1a. Emissions from the Asphalt Plant:

Asphalt Plant:

<u>Throughput</u>	<u>Pollutant</u>	<u>Emission Rate</u>		<u>Annual Emissions</u>
800,000 tons/yr (asphalt)	PM	0.018	lb/ton	7.20 ton/yr
	VOM	0.030	lb/ton	12.0 ton/yr
	CO	0.056	lb/ton	22.40 ton/yr
	SO ₂	0.0033	lb/ton	1.32 ton/yr
	NO _x	0.030	lb/ton	12.00 ton/yr

Asphalt Storage Tank Heater:

<u>Throughput</u>	<u>Pollutant</u>	<u>Emission Rate</u>		<u>Annual Emissions</u>
10.30 mmscf/yr Natural Gas	NO _x	100	lb/mmscf	0.52 ton/yr
	CO	21	lb/mmscf	0.11 ton/yr

These tables defines the potential emissions of the plant and is based on the actual emissions determined from hourly unit capacity, the combustion of Natural Gas emission standards, if applicable, standard emission factors, and 50% attenuation of sulfur dioxide by adsorption on alkaline aggregate .

b. Particulate Matter Fugitive Emissions

Includes emissions from handling and erosion of storage piles, and paved and unpaved plant road traffic: 5.49 Tons/yr.

2. Emissions from the Crushing equipment:

<u>Throughput</u>	Particulate Matter	
	<u>Emission Rate</u>	<u>Annual Emissions</u>
470,000 tons/yr Crushing	0.0012 lb/ton	0.85 ton/yr
Conveying 6 transfer points	0.0001 lb/ton	0.15 ton/yr

This table defines the potential emissions of the crushing equipment and is based on the actual emissions determined form maximum production capacity, moisture content of the aggregate of 1.5% by weight or greater, and standard AP-42 emission factors.