

217/782-2113

"RENEWAL"
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT
NSPS SOURCE

PERMITTEE

Arrow Road Construction Company
Attn: Mr. John F. Healy, President
3401 South Busse Road
Mount Prospect, IL 60056

Application No.: 72110054

I.D. No.: 031804AAA

Applicant's Designation:

Date Received: September 11, 2000

Subject: Asphalt and Crushing Plant

Date Issued: March 30, 2001

Expiration Date: March 30, 2006

Location: 3401 South Busse Road, Mount Prospect

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a gas-fired, drum-mix asphalt plant (gas-fired dryer with a baghouse and two (2) gas-fired asphalt heaters), a 10,000-gallon diesel fuel and a 6,000-gallon gasoline underground storage tank each with submerged loading pipe; three (3) 10,000-gallon liquid asphalt aboveground storage tanks; a crushing plant (a crusher, screen, conveyors, and water spray bars) and four (4) prime storage tanks (asphaltic emulsion tanks) 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 carbon monoxide and volatile organic materials from the gas-fired drum mix asphalt and crushing plant to less than major source thresholds, as further described in Attachment A. As a result, the source is excluded from the 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 all operating permit(s) issued for this location.
- 2a. The 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 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 40 CFR 60.92.

- c. The Permittee shall 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 40 CFR 60.11(d).

- 3a. Emissions and operation of the asphalt plant shall not exceed the following limits:

| <u>Pollutant</u> | <u>Asphalt Production</u> | | <u>Emissions</u> | |
|------------------|---------------------------|-----------------|------------------|-----------------|
| | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| | 300,000 | 1,500,000 | | |
| | <u>Emission Factor</u> | | | |
| | <u>(Lb/Ton)</u> | | | |
| PM | 0.033 | | 4.9 | 24.8 |
| CO | 0.13 | | 19.5 | 97.5 |
| NO _x | 0.026 | | 3.9 | 19.5 |
| SO ₂ | 0.0034 | | 0.5 | 2.6 |
| VOM | 0.032 | | 4.8 | 24.0 |

These limits are based on maximum asphalt production and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions and operation of the asphalt heaters (combined) shall not exceed the following limits:

| <u>Gas Usage</u> | | <u>Pollutant</u> | <u>Emission Factor</u> | <u>Emissions</u> | |
|-------------------|-------------------|------------------|------------------------|------------------|-----------------|
| <u>(mmscf/Mo)</u> | <u>(mmscf/Yr)</u> | | <u>(Lb/mmscf)</u> | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| 3 | 18 | NO _x | 100 | 0.2 | 0.9 |
| | | CO | 84 | 0.2 | 0.8 |

These limits are based on maximum gas usage and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- c. This permit is issued based on negligible emissions of VOM from all the storage tanks (combined). For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
- 4a. The crushing plant is 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. Emissions of particulate matter from the crushers (except from truck dumping), shall not exceed 15% opacity (40 CFR 60.672(c) and (d)).
- c. Emissions of particulate matter from grinding mills, screens (except from truck dumping), bucket elevators, transfer points on belt conveyors, bagging operations, and storage bins, shall not exceed 10 percent opacity, (40 CFR 60.672(b) and (d)).
- d. 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.

- 5a. Emissions and operation of the crushing plant shall not exceed the following limits:

| <u>Item of Equipment</u> | <u>Aggregate Throughput</u> | | <u>PM Emissions</u> | |
|--------------------------|-----------------------------|-----------------|---------------------|-----------------|
| | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| | 56,000 | 336,000 | | |
| | <u>Emission Factor</u> | | | |
| | <u>(Lb/Ton)</u> | | | |
| 1 Crusher | 0.0007 | | 0.02 | 0.21 |
| 1 Screen | 0.0018 | | 0.05 | 0.31 |
| 6 Transfer Points | 0.0001 | | 0.02 | 0.10 |

These limits are based on maximum aggregate throughput and standard, controlled AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Water sprays shall be used on the crushers, conveyors, stockpiles, and roadways to produce a moisture content of 1.5% by weight or higher.
- c. The aggregate shall be tested once a month during operating time using ASTM Procedures (C566-67) to determine the moisture content in % by weight.
- d. The Permittee shall maintain monthly records of the results of the moisture content tests required by special Condition 5c.
- 6a. Within 90 days of a written request from the Illinois EPA, pursuant to 35 Ill. Adm. Code Section 2201.282, the opacity of the crushing plant 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 |
|---------|----------------|
- 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 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 shall be notified prior to these tests to enable the Illinois EPA 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 may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notification if it interfere with Illinois EPA's ability to observe the testing.
- 7a. The Permittee shall maintain operating logs for the following:
 - i. The asphalt plant dryer control system, including operating data (pressure drop and stack condition), daily upon startup and during times of actual operation;
 - b. The Permittee shall maintain daily and monthly records of the following items:
 - i. Asphalt production (tons/mo) (tons/yr); and
 - ii. Aggregate throughput (tons/mo) (tons/yr).
- 8. The records required by Condition 7 shall be retained at an accessible location at the plant for a 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.
- 9. If there is an exceedance of the requirements of this permit as determined by the records 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 recordkeeping 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 (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

10. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.

11. The transportation and assembly of the asphalt or crushing plant to a new location will require a new Construction and Operating Permit for the new location. This permit must be obtained prior to reassembling the plant at the new location.
12. The Illinois EPA is to be notified in writing within five (5) days of any relocation of the movable processing equipment covered by this permit to another permitted location. After operating the equipment at the other permitted location, the equipment may be returned to this location.
- 13a. The Permittee shall maintain operating and maintenance logs for the dryer control system including:
 - i. Maintenance activities with date and description of inspections, repairs, equipment or filter bag replacements, etc.
 - ii. Incidents of malfunction with date, duration, description, probable cause, and corrective actions.
- b. These records 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 upon request.
- 14a. The Final Report(s) for the tests specified in Condition 6 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 emissions source which was tested, date of test, names of personnel performing the tests, and Illinois EPA 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 each to the Source Emission Test Specialist, the Regional Office, and the Permit Section.
- ii. Final Report - one copy each to the Source Emission Test Specialist, the Regional Office, and the Permit Section.

Illinois Environmental Protection Agency
Attn: Source Emission Test Specialist
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

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: IEPA, FOS Region 1
IEPA, Compliance Unit
USEPA

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from the asphalt plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, e.g., 100 tons per year of CO and 25 tons per year of VOM at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

- 1a. Emissions and operation of the asphalt plant shall not exceed the following limits:

| <u>Pollutant</u> | <u>Asphalt Production</u> | | <u>Emissions</u> | |
|------------------|---------------------------|-----------------|------------------|-----------------|
| | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| | 300,000 | 1,500,000 | | |
| | <u>Emission Factor</u> | | | |
| | <u>(Lb/Ton)</u> | | | |
| PM | 0.033 | | 4.9 | 24.8 |
| CO | 0.13 | | 19.5 | 97.5 |
| NO _x | 0.026 | | 3.9 | 19.5 |
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| VOM | 0.032 | | 4.8 | 24.0 |

These limits are based on maximum asphalt production and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions and operation of the asphalt heaters (combined) shall not exceed the following limits:

| <u>Gas Usage</u> | | <u>Pollutant</u> | <u>Emission Factor</u> | <u>Emissions</u> | |
|-------------------|-------------------|------------------|------------------------|-------------------|-----------------|
| <u>(mmscf/Mo)</u> | <u>(mmscf/Yr)</u> | | | <u>(Lb/mmscf)</u> | <u>(Ton/Mo)</u> |
| 3 | 18 | NO _x | 100 | 0.2 | 0.9 |
| | | CO | 84 | 0.2 | 0.8 |

These limits are based on maximum gas usage and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- c. This permit is issued based on negligible emissions of VOM from all the storage tanks (combined). For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

2. Emissions and operation of the crushing plant shall not exceed the

following limits:

| Aggregate Throughput | |
|----------------------|-----------------|
| <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| 56,000 | 336,000 |

| <u>Item of Equipment</u> | <u>Emission Factor (Lb/Ton)</u> | <u>PM Emissions</u> | |
|--------------------------|---|---------------------|-----------------|
| | | <u>(Ton/Mo)</u> | <u>(Ton/Yr)</u> |
| 1 Crusher | 0.0007 | 0.02 | 0.21 |
| 1 Screen | 0.0018 | 0.05 | 0.31 |
| 6 Transfer Points | 0.0001 | 0.02 | 0.10 |

These limits are based on maximum aggregate throughput and standard, controlled AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

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