217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE

Permittee

E T Simonds Construction Company
Attn: Mark Etters
1500 North Oakland Avenue
Post Office Box 2107
Carbondale, Illinois 62902-2107

Application No.: 03080018
I.D. No.: 181852AAA
Applicant's Designation:
Date Received: August 7, 2003
Subject: Drum-Mix Asphalt Plant
Date Issued:
Expiration Date:
Location: Route 51, Anna

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 with baghouse capable of using both fuel oil and natural gas, three asphalt storage tanks (30,000-gallon, each), Hot Mix Storage Silos with loadout, and Fuel oil-fired asphalt tank heater as described in 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 sulfur dioxide (SO_2), carbon monoxide (CO), and nitrogen oxides (NO_x) from the asphalt plant to less than major source thresholds, 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.

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 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. 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.

b. No person shall cause or allow the emission of sulfur dioxide (SO_2) into the atmosphere from any process emission source to exceed 2000 ppm, pursuant to 35 Ill. Adm. Code 214.301.

c. No person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except as provided in Sections 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material, pursuant to 35 Ill. Adm. Code 215.301.

4. The dryer and tank heater shall only be operated with natural gas, liquefied petroleum gas (LPG), distillate fuel oil grades No. 1 and 2 (i.e., diesel) as the fuels.

5. Emissions and operation of the drum-mix asphalt plant shall not exceed the following limits:

Item of Equipment	Asphalt Production (Ton/Mo)	Asphalt Production (Ton/Yr)	Pollutant	Emission Factor (Lb/Ton)	Emissions (Lb/Mo)	Emissions (Ton/Yr)
Drum-Mix Asphalt Plant	75,000	600,000	PM	0.033	2,475	9.90
			CO	0.130	9,750	39.00
			NO_x	0.055	4,125	16.50
			SO_2	0.058	4,350	17.40
			VOM	0.032	2,400	9.60

These limits are based on standard AP-42 emission factors and a maximum hourly production rate of 500 tons using fuel oil with a maximum sulfur content of 0.5 %wt or natural gas, and information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data.

6. Emissions and operation of asphalt tank heater shall not exceed the following limits:

Item of Equipment	Maximum Heater Rating (mmBtu/Hr)	Pollutant	Emission Factor (Lb/1,000 gal)	Emissions (Lb/Hr)	Emissions (Ton/Yr)
Asphalt Tank Heater	2	PM	2	0.03	0.13
		CO	5	0.07	0.31
		NO_x	20	0.29	1.25
		SO_2	42.6	0.61	2.67
		VOM	0.2	0.01	0.01

These limits are based on standard AP-42 emission factors, fuel oil with a maximum sulfur content of 0.28 %wt as the only fuel fired in the heater and 8,760 hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.

7. Emissions and operation of asphalt silos shall not exceed the following limits:

Item of Equipment	Asphalt Production (Ton/Mo)	Asphalt Production (Ton/Yr)	Pollutant	Emission Factor (Lb/Ton)	Emissions (Lb/Mo)	Emissions (Ton/Yr)
Asphalt Loadout	75,000	600,000	PM	0.0007	53	0.21
			CO	0.0007	53	0.21
			VOM	0.0048	360	1.44

These limits are based on standard AP-42 emission factors and information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data.

8. This permit is issued based on negligible emissions of volatile organic material from 3 asphalt storage tanks. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

9. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, [35 Ill. Adm. Code 214.301].

10. 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.

11a. Within 90 days of a written request from the Illinois EPA, pursuant to 35 Ill. Adm. code Section 201.282, the emissions and opacity of the exhaust from the plant shall be measured by an approved testing service, 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
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 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. 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 notifications if it interferes with the Illinois EPA's ability to observe the testing.

12a. The Final Report(s) for all tests shall be submitted within 30 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 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.

13. The Permittee shall maintain the following records:

    a. Asphalt production (tons/hour, tons/month and tons/year);

    b. Natural gas usage in dryer (mmscf/month and mmscf/year);

    c. Fuel oil usage and sulfur content used in the dryer (gallon/month and gallon/year); and

    d. Fuel oil usage and sulfur content (%wt) used in the tank heater (gallon/month and gallon/year); and

    e. Operating and maintenance logs for the dryer control system, including: maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.

14. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry, unless otherwise specified, and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

15a. 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.

b. If the rotary dryer control system is not operating properly while the dryer is operated or there is an exceedance of the requirements of this permit as determined by the records required by Condition 13, the Permittee shall submit a report 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.

16. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

    Illinois Environmental Protection Agency
    Division of Air Pollution Control
    Compliance Section (#40)
    P.O. Box 19276
    Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

It should be noted that this permit has been revised to incorporate Construction Permit #00100054.

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

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

DES:EEJ:psj

cc: Illinois EPA, FOS Region 3
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission of an affected drum-mix asphalt plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Agency used the annual operating scenario, which results in maximum emissions from such a plant. This is accomplished by limiting asphalt production to 600,000 and sulfur content of the fuel oil. The resulting maximum emissions are well below the levels, e.g., 100 tons per year for Carbon Monoxide (CO), 100 tons per year for Nitrogen Oxides (NO_x), and 100 tons per year for Sulfur Dioxide (SO_2) at which a plant would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this facility will be less than predicted in this summary to the extent that the plant produces less asphalt, gaseous fuel is used, and control measures are more effective than required by this permit.

	EMISSIONS (Tons/yr)				
Equipment/Process	PM	NO_x	CO	SO_2	VOM
Drum Mix Asphalt Plant with Baghouse	9.90	16.50	39.00	17.40	9.60
2 Asphalt Storage Tanks (Total)	--	--	--	--	1.32
Silos loading and loadout	0.21	--	0.21	--	1.44
Asphalt Tank Heater	0.07	0.88	0.72	0.01	0.05
Total	5.32	15.88	50.72	11.01	5.43

DES:EEJ:psj

PROJECT SUMMARY

I. INTRODUCTION

An initial application has been submitted by E. T. Simonds Construction, Co., Inc. for a federally enforceable state operating permit for the existing portable drum mix asphalt plant. These limits would prevent the asphalt plant from being major source of emissions so that an operating permit does not have to be obtained under the Clean Air Act Permit Program. The proposed limits would be accompanied by recordkeeping and reporting requirements to assure that the plant is operated as a non-major source. These conditions would be enforceable by both the State of Illinois and the USEPA.

II. SOURCE DESCRIPTION

E. T. Simonds Construction Company employs a drum mix asphalt plant, which is used to manufacture hot mix asphalt for road pavement. The process consists of blending prescribed portions of cold feed materials (sand, gravel, screenings, chips, etc.) uniformly and adding sufficient hot asphalt oil to bind the mixture together. After the hot asphalt mix is manufactured at the plant, it is transported to the location where it is to be applied. The hot asphalt mix is spread evenly over the surface with a paver then compacted with a heavy roller to produce the final product.

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

The cold feed materials (aggregate) are dumped into separate bins, which in turn feed a common continuous conveyor. The aggregate is dispensed from the bins in accordance with the desired formulation onto the cold feed system conveyor, to an inclined weigh conveyor, then to a rotating drum for continuous mixing and drying at approximately 300EF. When recycled asphalt mix is used, it is added halfway down the drum through a separate conveyor. The required amount of hot asphalt oil is then injected onto and mixed into the dried aggregate. The now newly formed hot asphalt mix is pulled to the top of a storage silo through a slide gate into waiting dump trucks which transports the material to a final destination for spreading.

The drum mixer uses a burner fired with Fuel Oil or natural to heat air to dry the aggregate, and the motion of the rotating drum to blend the aggregate. The air is drawn into the system via an exhaust fan. After passing through the gas burner and the mixing drum, the air passes through a baghouse. The exhaust gasses are drawn through the baghouse and discharged to the atmosphere through the stack. The particulate matter, which is removed by the baghouse, is reinjected into the drum mixer.

III. EMISSIONS

The principal air contaminants emitted from the asphalt plant is particulate matter (PM), carbon monoxide (CO), nitrogen oxide (NO_x), sulfur dioxide (SO_2), and volatile organic compound (VOC) generated by the asphalt plant (dryer and heater).

The proposed permit limits the emissions of the asphalt plant to less than the major source threshold value for each pollutant, thereby exempting this asphalt plant from the requirements of Clean Air Act Permit Program.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board emission standards. The board's emission standards represent the basic requirements for sources in Illinois. The board has standards for sources of regulated pollutants for the asphalt plant. This site readily complies with all applicable Board standards.

V. PROPOSED PERMIT

The conditions of the proposed permit contain limitations and requirements to assure that the plant will be operated as a non-major source. The permit sets limitations on the amount of asphalt concrete produced. These limitations are consistent with the historical operation and capacity of the plant.

The permit conditions also establish appropriate procedures, including inspection practices, recordkeeping and reporting requirements. The Permittee must carry out these procedures on an ongoing basis to demonstrate that the asphalt plant is operating within the limitations set by the permit and is properly controlling emissions.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the asphalt plant meet all applicable state and federal air pollution control requirements, subject to the conditions proposed in the draft permit. The Illinois EPA is therefore proposing to issue a permit with federally enforceable limits for this operation.

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.

EEJ:03080018:jar