

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE - RENEWAL

Permittee

P. H. Broughton and Sons, Inc.
Attn: Mr. John R. Broughton, President
905 North Lincoln Avenue
Springfield, Illinois 62702

Application No.: 06010019

I.D. No.: 167822ABM

Applicant's Designation:

Date Received: September 15, 2011

Subject: Drum Mix Asphalt Plant

Date Issued:

Expiration Date:

Location: 1700 Camp Lincoln Road, Springfield, Sangamon County

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of fuel oil #2-fired, drum-mix asphalt plant with wet scrubber, one 20,000 gallon liquid asphalt storage tank, and one 1.41 mmBtu/hr No.2 fuel-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 air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for carbon monoxide (CO)). As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
- 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 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. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner

consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and

maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 Ill. Adm. Code 212.122, except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.
- b. Pursuant to 35 Ill. Adm. Code 212.206, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hour of actual heat input from any fuel combustion emission unit (e.g., asphalt tank heaters and boilers associated with this drum-mix asphalt plant) using liquid fuel exclusively (0.10 lbs/mmBtu).
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 Ill. Adm. Code 212.301 and 212.314.
- d. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 Ill. Adm. Code 212.321.
- 4a. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source (e.g., asphalt tank heaters and boilers associated with this drum-mix asphalt plant) with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hour), burning liquid fuel exclusively To exceed 0.46 kg of sulfur dioxide per MW-hour of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).
- b. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm.
5. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 8.0 lbs/hour of organic material into the atmosphere from any emission unit. If no odor nuisance exists then this limitation shall only apply to photochemically reactive material as defined in 35 Ill. Adm. Code 211.4690.

- 6a. The wet scrubber shall be in operation at all times when the associated drum dryer is in operation and emitting air contaminants.
- b. The Permittee shall follow good operating practices for the baghouse, including periodic inspection, routine maintenance and prompt repair of defects.
- 7a. The drum mixer and drum dryer shall only be operated with distillate fuel oil grades No. 1 and 2 (i.e., diesel) as the fuel. The use of any other fuel in the drum mixer and drum dryer requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- b. The asphalt tank heaters associated with the drum-mix asphalt plant shall only be operated with No. 2 fuel oil. The use of any other fuel in the asphalt tank heaters requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- c. At the above location, the Permittee shall not keep, store, or utilize in the drum-mix asphalt plant:
 - i. Distillate fuel oil (Grade No. 1 and 2) with a sulfur content greater than the larger of the following two values:
 - A. 0.28 weight percent; or
 - B. The Weight percent given by the formula: Maximum Weight percent sulfur = $(0.000015) \times (\text{Gross heating value of oil, Btu/lbs})$.
 - ii. Organic liquid by-products or waste materials shall not be used in the drum-mix asphalt plant without written approval from the Illinois EPA.
 - iii. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- 8. 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.
- 9a. Emissions and operation of the asphalt plant shall not exceed the following limits:
 - i. Asphalt Production Limits:

(Tons/Hour)

(Tons/Month)

(Tons/Year)

Sulfur Dioxide (SO ₂)	39.76	0.18	1.79
Volatile Organic Material (VOM)	0.34	0.01	0.02

These limits are based on the maximum firing rate of the asphalt tank heater (1,41 mmBtu/hr), a heat content of 137,000 Btu/gal for #2 distillate fuel oil, 8760 hours/year of operation, and standard AP-42 emission factors (Tables 1.3-2 and 1.3 3, AP-42, Volume I, Fifth Edition, Supplement E, September 1998).

- c. This permit is issued based on negligible emissions of VOM from the one liquid asphalt storage tank. For this purpose, emissions from the one tank shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year total.
 - d. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 10a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Condition 10(a) shall be performed by a qualified independent testing service.

- 11a. The Permittee shall perform all applicable monitoring for the drum-mix asphalt plant as specified in 40 CFR 60.13.
- b. Inspections of the affected drum-mix asphalt plant and control systems equipment and operations shall be performed as necessary but at least once per week when the affected drum-mix asphalt plant is in operation to confirm compliance with the requirements of this permit.
- 12a. The Permittee shall retain all applicable records for the drum-mix asphalt plant as specified by 40 CFR 60.7.
- b. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- c. Records addressing use of good operating practices for the baghouse:
 - i. Operating logs for the drum-mix asphalt plant dryer baghouse, including operating data (pressure drop or stack condition), daily upon startup;
 - ii. Records for periodic inspection of the wet scrubber with date, individual performing the inspection, and nature of inspection; and
 - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. The Permittee shall maintain records of the following items:
 - i. Asphalt concrete production (tons/month and tons/year);
 - ii. Fuel Usage Records:
 - A. Distillate fuel oil usage (gallons/month and gallons/year); and
 - B. The sulfur content of the fuel oil used in the drum-mix asphalt plant (% weight), this shall be recorded for each shipment of oil delivered to the source.
 - iii. Monthly and Annual CO₂e, CO, NO_x, PM, SO₂, and VOM emissions from the drum-mix asphalt plant shall be maintained, based on asphalt production, fuel consumption, and the applicable emission factors, with supporting calculations.
- e. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA 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 or USEPA request for records during the course of a source inspection.

- 13a. The Permittee shall submit all applicable reports for the drum-mix asphalt plant as specified in 40 CFR 60.7 and 60.19.
 - b. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
 - c. If there is an exceedance of or a deviation from the requirements of this permit as determined by the record required by this permit, the Permittee shall submit a report to the Agency's Compliance and Systems Management Section in Springfield, Illinois within 30 days after the exceedance/deviation. 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 deviation and efforts to reduce emissions and future occurrences.
14. Two (2) copies of required reports and notifications 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
5407 North University
Peoria, Illinois 61614
15. The assembly of this plant at a new location will require a construction permit. This permit must be obtained prior to commencing construction at the new location. For this purpose, a new location is defined as a location in Illinois at which the plant does not have a valid operating permit or authorization letter.
 16. The operation of this plant at a location in Illinois other than a location identified in a valid operating permit or an authorization letter requires another operating permit or authorization from the Illinois EPA. This operating permit/authorization must be obtained prior to operating at such location.

Page 9

It should be noted that the fuel oil storage tank are exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(n)(3).

If you have any questions on this permit, please call German Barria at 217/785-1705.

Robert W. Bernoteit
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

RWB: GB: Type

cc: Illinois EPA, FOS Region 2
Lotus Notes

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 carbon monoxide) 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.

<u>Item of Equipment</u>	Annual Emissions (Tons/year)				
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>
Drum Mixer/Dryer	29.25	12.37	10.12	2.47	7.20
Asphalt Tank Heater	0.23	0.90	0.09	1.79	0.02
Asphalt Silos & Truck Loadout	0.56		0.25	----	3.69
1 Liquid Asphalt Storage Tank	----	----	----	----	<u>0.44</u>
Total	<u>30.04</u>	<u>13.27</u>	<u>10.46</u>	<u>4.26</u>	<u>11.35</u>

RWB: GB: Type