

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE - RENEWAL

Permittee

Kankakee Valley Construction Company, Inc.
Attn: Mark Kraetzer,
Vice President of Operations
4356 West Route 17
Kankakee, Illinois 60901

Application No.: 90040098

I.D. No.: 091806AAI

Applicant's Designation:

Date Received: September 8, 2011

Subject: One Drum-Mix Asphalt Plant

Date Issued:

Expiration Date:

Location: 1349 East 6000 North Road, Manteno, Kankakee County

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of

Drum Mix Asphalt Plant:

One (1) 400 tons/hr Natural Gas-fired Drum Mixer/Dryer with Baghouse Control;
One (1) 3 mmBtu/hr Natural Gas-fired Asphalt Tank Heater;
One (1) Liquid Asphalt Storage Tank;
Asphalt Storage Silo; and
Asphalt Silo Loadout.

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/yr for Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Particulate Matter less than 10 microns (PM₁₀), and Sulfur Dioxide (SO₂)). 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. The Drum Mix Asphalt Plants are subject to the New Source Performance Standards (NSPS) for Hot Mix Asphalt Plants, 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. Pursuant to 40 CFR 60.92(a), On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed,

no owner or operator subject to the provisions of 40 CFR 60 Subpart I shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

- i. Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).
 - ii. Exhibit 20 percent opacity or greater.
- 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 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- 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 toward the zenith at a point beyond the property line of the source.
- 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 35 Ill. Adm. Code 212.321(c).
4. 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 excess 2000 ppm.

5. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8.0 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 215.302, 215.303, or 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart G shall only apply to photochemically reactive material.
- 6a. The baghouse shall be in operation at all times when the associated drum dryer is in operation and emitting air contaminants.
- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the baghouse such that the baghouse is kept in proper working condition and not causes a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- c. 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.
- d. The drum mixer and drum dryer associated with the drum-mix asphalt plant shall only be operated with natural gas as the fuel. The use of any other fuel in the drum mixer, or drum dryer associated with the drum-mix asphalt plant 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.
- e. The asphalt tank heater associated with the drum-mix asphalt plant shall only be operated with natural gas as the fuel. The use of any other fuel in the asphalt tank heater associated with the drum-mix asphalt plant 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.
- 7a. Emissions and operation of the drum mix asphalt plant shall not exceed the following limit:
 - i. Asphalt production limits:

<u>(Tons/Hour)</u>	Asphalt Concrete Production <u>(Tons/Month)</u>	<u>(Tons/Year)</u>
400	55, 000	330,000

- ii. Emissions from drum mixer/dryer:

<u>Pollutant</u>	Emission Factor <u>(lbs/Ton)</u>	Emissions <u>(Tons/Month)</u>	<u>(Tons/Year)</u>
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CO2e	33.429	9,19.31	5,515.84
CO	0.130	3.58	21.45
NO _x	0.026	0.72	4.29
PM	0.033	0.91	5.45
PM ₁₀	0.023	0.63	3.80
SO ₂	0.003	0.09	0.56
VOM	0.032	0.88	5.28

These limits are based on the maximum asphalt production and standard emission factors (Tables 11.1-3, 11.1-7, 11.1-8, and 11.1-14, AP-42, Volume I, Fifth Edition, Update 2001, December 2000).

iii. Emissions from Silo Filling:

<u>Pollutant</u>	<u>Emission Factor</u> (lb/Ton)	<u>Emissions</u> (lb/Mo)	<u>Emissions</u> (Tons/Yr)
CO	0.00118	65	0.19
PM	0.000586	32	0.10
PM ₁₀	0.000586	32	0.10
VOM	0.0122	671	2.01

iv. Emissions from Truck Load-out:

<u>Pollutant</u>	<u>Emission Factor</u> (lb/Ton)	<u>Emissions</u> (lb/Mo)	<u>Emissions</u> (Tons/Yr)
CO	0.00135	74	0.22
PM	0.000522	28	0.09
PM ₁₀	0.000522	28	0.09
VOM	0.00416	229	0.69

These limits are based on maximum asphalt production and standard emission factors (Tables 11.1-3, 11.1-7, 11.1-8, and 11.1-14, AP-42, Volume I, Fifth Edition, Update 2004, April 2004).

b. Emissions and operation of the asphalt tank heater burning natural gas shall not exceed the following limits:

<u>Pollutant</u>	<u>Throughput</u> (mmscf/year)	<u>Emission Rate</u> (lb/mmscf)	<u>Emissions</u> (Tons/Mo)	<u>Emissions</u> (Tons/Yr)
CO2e	25.76	121,030	259.86	1,559.16
CO		84	0.18	1.08
NO _x		100	0.22	1.29
PM		7.60	0.02	0.10
SO ₂		0.60	0.002	0.01
VOM		5.50	0.01	0.07

These limits are based on the maximum firing rate of the asphalt tank heater (3,000,000 Btu/hr), a heat content of 1020 Btu/scf, 8760 hours/year of operation, and standard AP-42 emission factors (Tables

1.4-1 and 1.4-2, AP-42, Volume I, Fifth Edition, Supplement D, July 1998).

- c. This permit is issued based on negligible emissions of VOM from the one liquid asphalt storage tank. For this purpose, emissions from all such sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year total.
- 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 (running 12 month total).
- 8a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).
- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
 - i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
 - ii. Approves the use of an equivalent method;
 - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
 - iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
 - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.
- c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable

emission limit unless otherwise specified in the applicable standard.

- d. Pursuant to 40 CFR 60.8(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.
- e. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
 - i. Sampling ports adequate for test methods applicable to such facility. This includes:
 - A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test 1 methods and procedures; and
 - B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - ii. Safe sampling platform(s).
 - iii. Safe access to sampling platform(s).
 - iv. Utilities for sampling and testing equipment.
- f. Pursuant to 40 CFR 60.8(f), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.
- 9a. Pursuant to 40 CFR 60.93(a), in conducting the performance tests

required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR Part 60 or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).

- b. Pursuant to 40 CFR 60.93(b), the owner or operator shall determine compliance with the particulate matter standards in 40 CFR 60.92 as follows:
 - i. Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).
 - ii. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.
- 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 upon a written request from the Illinois EPA 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. 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.
- b. The Permittee shall maintain monthly records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. Records addressing use of good operating practices for the baghouse:
 - A. Operating logs for the affected drum-mix asphalt plant baghouse, including operating data (pressure drop or stack condition), daily upon startup;
 - B. Records for periodic inspection of the baghouse with date, individual performing the inspection, and nature of inspection; and
 - C. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Asphalt concrete production (tons/month and tons/year);
 - iii. Total natural gas usage (Mft³/month and Mft³/year); and
 - iv. 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, natural gas consumption, and the applicable emission factors, with supporting calculations.
 - c. 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 storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.
- 13a. 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.

- b. 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. This report should be sent to:
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
9511 West Harrison
Des Plaines, Illinois 60016

- 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.

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

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

Date Signed: _____

RWB: GB:

cc: Illinois EPA, FOS Region 1
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 CO, NO_x, PM₁₀ and SO₂) 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>CO₂e</u>	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>
Drum Mixer/Dryer	5,515.84	21.45	4.29	5.45	0.56	5.28
Asphalt Tank Heater	1,559.16	1.08	1.29	0.10	0.01	0.07
Asphalt Silos and Truck Loadout	----	0.41		0.19	----	2.70
One Liquid Asphalt Storage Tank	----	----	----	----	----	0.44
Total	<u>7,075.00</u>	<u>22.94</u>	<u>5.58</u>	<u>5.74</u>	<u>0.57</u>	<u>8.49</u>

RWB: GB: