

217/782-2113

ARENEWAL@

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE

PERMITTEE

Chicago Paving and Construction Co.  
Attn: Joseph L. Kovac  
1340 West 171st Street  
Hazel Crest, Illinois 60429

Application No.: 73010620

I.D. No.: 031600CGT

Applicant's Designation:

Date Received: September 8, 2000

Subject: Asphalt Plant

Date Issued: February 1, 2001

Expiration Date: February 1, 2006

Location: 12701 South Doty Avenue, Chicago

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of gas fired batch-mix asphalt plant with baghouse, liquid asphalt storage tank (12,000 gallon) RAP processing plant (consisting of a crusher, screen, transfer bin, and 2 conveyors) as described in the 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 (CO) from the asphalt plant to less than major source thresholds, as 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.
2. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.
3. Pursuant to 35 Ill. Adm. Code 212.313 emissions of PM<sub>10</sub> from particulate control equipment shall not exceed 0.03 gr/dscf.
- 4a. The 2 conveyors, 1 crusher, 1 bin, and 1 screen are subject to New Source Performance Standards (NSPS), 40 CFR 60, Subparts A and 000. 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 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)).

- c. Emissions of particulate matter from the crushers (except from truck dumping), shall not exceed 15 percent opacity, (40 CFR 60.672(c) and (d)).
  - d. Pursuant to 35 Ill. Adm. Code 212.316(b), the Permittee shall not cause or allow fugitive particulate matter generated by crushing or screening of slag or stone to exceed an opacity of 10%.
  - e. Pursuant to 35 Ill. Adm. Code 212.316(c), the Permittee shall not cause or allow fugitive particulate matter emissions from any roadway to exceed an opacity of 10%.
5. At all times the Permittee shall also maintain and operate this equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
- 6a. Operation of the asphalt plant shall not exceed the following limits:

Asphalt Concrete Production Rate: 250 tons/hour, and 400,000 tons/yr

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

<u>Equipment</u>	<u>Asphalt Production</u>		<u>Pollutant</u>	<u>Emission Factor (Lb/Ton)</u>	<u>Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>			<u>(lb/Mo)</u>	<u>(Ton/Yr)</u>
Gas Fired Batch-Mix Asphalt Plant	40,000	400,000	TSP	0.042	1,680	8.40
			CO	0.4	16,000	80.00
			NO <sub>x</sub>	0.025	1,000	5.00
			SO <sub>2</sub>	0.0046	184	0.92
			VOM	0.0082	328	1.64

These limits are based on standard AP-42 emission factors and a maximum hourly capacity of 250 tons/hour. 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 volatile organic material (VOM) from the liquid asphalt storage tank. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
- 7a. Emissions and operation of the RAP processing plant shall not exceed the following limits:

<u>Equipment</u>	<u>Asphalt Production</u>		<u>Emission Factor (Lb/Ton)</u>	<u>Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>		<u>(lb/Mo)</u>	<u>(Ton/Yr)</u>
RAP Crusher	20,000	200,000	0.0050	101	0.50
Screen	20,000	200,000	0.0315	630	3.15
Transfer Bin	20,000	200,000	0.0029	59	0.29
2 Conveyors	40,000	400,000	0.0029	118	0.59

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

- 8. 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 Conditions 9 and 14, 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.
- 9. The Permittee shall maintain 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.
- 10a. 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 asphalt 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.
- 11. The Final Report(s) for all tests shall be submitted within 90 days after the date of the test. The Final Report shall include as a minimum:
  - a. 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;
  - b. A summary of results;
  - c. Description of test procedures, including description of sampling points, test equipment, and test schedule;
  - d. Detailed description of test conditions, including:
    - i. Process information, i.e., process rate, aggregate type, fuel type, and firing rate.
    - ii. Control equipment information, i.e., equipment condition and operating parameters during testing.
  - e. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- 12a. Within 60 days of a written request from the Illinois EPA, pursuant to 35 Ill Adm. Code Section 201.282, the opacity from an affected RAP 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 60 days.
  - b.
    - i. The following methods and procedures shall be used for opacity measurements.  
  
USEPA Method 9, 40 CFR 60 Appendix A

- ii. A test shall consist of 30 sets of 24 consecutive observations.
  - c. Opacity measurements shall be performed by a certified observer.
  - d. The Illinois EPA shall be notified prior to these measurements to enable the Illinois EPA to observe these measurements. Notification of the expected date of the measurements shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five (5) working days prior to the actual date of the measurement. 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 measurements.
13. The Final Report(s) for all performance tests shall be submitted within 60 days after the date of the test. The Final Report shall include as a minimum:
- a. 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;
  - b. A summary of results;
  - c. A copy of certification for opacity observation of the person who performed the test;
  - d. Detailed description of test conditions, including:
    - i. Process information, i.e., process rate and aggregate type.
    - ii. Control equipment information, i.e., equipment condition and operating parameters during testing.
14. The Permittee shall maintain annual and monthly records of the following items:
- a. Asphalt production (tons/mo, tons/yr);
  - b. Natural gas usage in rotary dryer (mmscf/mo, mmscf/yr); and
  - c. RAP processing throughput (tons/mo, tons/yr).
15. This permit supersedes the current permit(s) issued for this location.
16. 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 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 (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

17. 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  
9511 West Harrison  
Des Plaines, Illinois 60016

18. 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.
19. 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.
20. 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.
21. The assembly of any these plants 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.

It should be noted that the asphalt tank heater is exempt pursuant to 201.146(d). Also this permit has been revised to reflect the new AP-42 emission factors published during the public comment period.

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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 1  
USEPA

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the asphalt plant and aggregate crushing 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. This is handling 400,000 tons of asphalt production per year. The resulting maximum emissions are well below the levels, e.g., 100 tons per year of carbon monoxide (CO) 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.

1. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

2a. Operation of the Asphalt Plant shall not exceed the following limits:

Asphalt Concrete Production Rate: 250 tons/hour, and 400,000 tons/yr

b. Emissions and operation of asphalt plant shall not exceed the following limits:

<u>Equipment</u>	<u>Asphalt Production</u>		<u>Pollutant</u>	<u>Emission Factor (Lb/Ton)</u>	<u>Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>			<u>(Lb/Mo)</u>	<u>(Ton/Yr)</u>
Gas Fired Batch-Mix Asphalt Plant	40,000	400,000	TSP	0.042	1,680	8.40
			CO	0.4	16,000	80.00
			NO <sub>x</sub>	0.025	1,000	5.00
			SO <sub>2</sub>	0.0046	184	0.92
			VOM	0.0082	328	1.64

These limits are based on standard AP-42 emission factors and a maximum hourly capacity of 250 tons/hour. Compliance with annual limits shall be determined from a running total of 12 months of data.

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

<u>Equipment</u>	<u>Heat Input Rating (mmBtu/Hr)</u>	<u>Pollutant</u>	<u>Emission Factor (Lb/mmscf)</u>	<u>Emissions</u>	
				<u>(Lb/Hr)</u>	<u>(Ton/Yr)</u>
Gas Fired Asphalt Tank Heater	0.8	NO <sub>x</sub>	100	0.08	0.34
		CO	84	0.07	0.29

- d. This permit is issued based on negligible emissions of volatile organic material (VOM) from 1 liquid asphalt storage tank. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.

3. Emissions and operation of the RAP processing plant shall not exceed the following limits:

<u>Equipment</u>	<u>Asphalt Production</u>		<u>Emission Factor</u> (Lb/Ton)	<u>Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>		<u>(lb/Mo)</u>	<u>(Ton/Yr)</u>
RAP Crusher	20,000	200,000	0.0050	101	0.50
Screen	20,000	200,000	0.0315	630	3.15
Transfer Bin	20,000	200,000	0.0029	59	0.29
2 Conveyors	40,000	400,000	0.0029	118	0.59

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

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