

217/782-2113

RENEWAL  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Geske and Sons, Inc.  
Attn: Lori Geske  
400 East Terra Cotta Avenue  
Crystal Lake, Illinois 60014

Application No.: 72111191 I.D. No.: 111801ABA  
Applicant's Designation: Date Received: November 3, 2000  
Subject: Asphalt Plant and Aggregate Plant  
Date Issued: Expiration Date: August 15, 2007  
Location: 4020 Northwest Highway, Crystal Lake

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of batch-mix asphalt plant with a natural gas fired dryer equipped with a baghouse, 5 liquid asphalt storage tanks (10,000 gallon, each), and a crusher 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. Emissions and operation of asphalt plant shall not exceed the following limits:

<u>Equipment</u>	<u>Throughput</u> (Tons/Mo)(Tons/Yr)		<u>Pollutant</u>	<u>Emission</u>		
				<u>Factor</u> (Lb/Ton)	<u>Emissions</u> (Lb/Mo)(Tons/Yr)	
Natural Gas-Fired	80,000	480,000	PM	0.042	3,360	10.08
Batch-Mix Asphalt			CO	0.4	32,000	96.00
			NO <sub>x</sub>	0.025	2,000	6.00
			SO <sub>2</sub>	0.0046	368	1.10

VOM 0.0082 656 1.97

These limits are based on standard AP-42 emission factors, the use of natural gas as the only fuel fired in the dryer, and a maximum hourly capacity of 200 tons/hr. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. 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 (Lb/Hr)(T/Yr)</u>	
Natural Gas-Fired	2.9	PM	7.6	0.02	0.09
Asphalt Tank Heater		NO <sub>x</sub>	100	0.28	1.25
		CO	84	0.24	1.05

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

5. This permit is issued based on negligible emissions of volatile organic material (VOM) from 5 liquid 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 ton/yr.

- 6a. Emissions and operation of Crusher shall not exceed the following limits:

<u>Equipment</u>	<u>Throughput (Tons/Mo) (Tons/Yr)</u>		<u>Pollutant</u>	<u>Emission Factor (Lb/Ton)</u>	<u>Emissions (Lb/Mo)(Tons/Yr)</u>	
Crusher	40,000	240,000	PM	0.005	200	0.60

These limits are based on standard AP-42 emission factors and a maximum hourly throughput of 100 tons. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. The moisture content of the aggregate as crushed shall be at least 1.5% by weight so as to reduce emissions of particulate matter.
- c. The Permittee shall show compliance with this requirement as follows:
- i. The moisture content of a representative sample of the aggregate shall be measured at least once per week using ASTM Procedures (C566-67) for total moisture content of material. Compliance with this requirement may be presumed if moisture content of aggregate as shipped is at least 1.5%; or
  - ii. A. Water sprays shall be used at each crusher and on other emission units as necessary, except when weather conditions are below or expected to fall below freezing temperatures, to provide moisture that will reduce emissions of particulate matter.

- B. The water supply to the spray equipment shall be equipped with a metering device used to determine water usage for the control of particulate matter emissions.
  - C. Inspections of water spray equipment and operation (such as leaking, adequate flow maintain, clogging of flow lines, etc.) shall be performed at least once per week when the facility is in operation, OR
    - iii. Water saturated materials mined below the water table are being processed.
7. 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.
- 8a. If the Permittee is relying on 6(c)(ii)(A) above to show compliance the Permittee shall maintain records of all moisture content tests performed, including date, time, individual performing test, location of sample e.g., prior to crushing or as shipped.
- If the Permittee is relying on 6(c)(ii)(B) above to show compliance the Permittee shall maintain operating logs for the water spray equipment, including dates and times of usage, malfunctions (type date and measures taken to correct), water pressure, and dates when there was enough rain that the water spray equipment was not operated.
- b. The Permittee shall maintain weekly records of water consumption in the spray equipment, as determined by the meter required by Condition 6(c)(ii)(B)(2).
9. 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.
10. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
11. The Permittee shall maintain records of the vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA.

12. In the event that the operation of this emission unit 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 odor nuisance.
13. The Permittee shall maintain the following records:
  - a. Asphalt production (tons/mo and tons/yr);
  - b. Natural Gas consumption (mmscf/mo and mmscf/yr); and
  - c. Aggregate throughput (tons/mo and tons/yr).
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 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.
15. 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.
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  
9511 West Harrison  
Des Plaines, Illinois 60016
17. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:

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a. Asphalt production.

18. 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.

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

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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 480,000 tons of asphalt production per year and 240,000 tons of aggregate 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.

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

<u>Equipment</u>	<u>Throughput</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>		<u>Factor</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
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			SO <sub>2</sub>	0.0046	368	1.10
			VOM	0.0082	656	1.97

These limits are based on standard AP-42 emission factors, the use of natural gas as the only fuel fired in the dryer, and a maximum hourly capacity of 200 tons/hr. Compliance with annual limits shall be determined from a running total of 12 months of data.

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

<u>Equipment</u>	<u>Heat Input</u>	<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>Rating</u>		<u>Factor</u>	<u>(Lb/Hr)</u>	<u>(T/Yr)</u>
Natural Gas-Fired	2.9	PM	7.6	0.02	0.09
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5. Emissions and operation of Crusher shall not exceed the following limits:

<u>Equipment</u>	<u>Throughput</u>		<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>		<u>Factor</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
Crusher	40,000	240,000	PM	0.005	200	0.60

These limits are based on standard AP-42 emission factors and a maximum hourly throughput of 100 tons. Compliance with annual limits shall be determined from a running total of 12 months of data.

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