

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE -- RENEWAL

PERMITTEE

IKO Chicago, Inc.
Attn: Plant Manager
6600 South Central Avenue
Bedford Park, Illinois 60638

Application No.: 83010045

I.D. No.: 031012AEL

Applicant's Designation:

Date Received: February 11, 2002

Subject: Asphalt Roofing Manufacturing

Date Issued:

Expiration Date:

Location: 6600 South Central Avenue, Bedford Park

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of two asphalt oxidizer blowing stills, two asphalt product storage tanks, and one asphalt oil tank controlled by an afterburner/asphalt heater; nine asphalt tanks controlled by fume eliminators; one asphalt dip saturator/coater and one filler/coater mixer controlled by a scrubber/filter (HEAF unit); two filler material storage silos with conveying system controlled by baghouse; one backing material storage silo with conveying system; twenty granule storage silos and one granule conveying system; one granule application system, and one backsurfacing application system controlled by main production line dust collector; space heaters, two oil heaters, one coating preheater, and one saturant preheater pursuant to 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 of particulate matter with an aerodynamic diameter of 10 microns or less (PM-10), 100 tons/year of carbon monoxide, 25 tons/year of volatile organic materials (VOM), 10 tons year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled HAP). As a result the source is excluded from the requirement 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 all operating permits issued for this location.
- 2a. The saturators and each mineral handling and storage facility at the asphalt roofing manufacturing plant is subject to a New Source Performance Standard (NSPS) for asphalt processing and asphalt roofing manufacture, 40 CFR 60, Subparts A and UU. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

- b. i. Pursuant to 40 CFR 60.472(a)(1), the emissions of particulate matter from the asphalt dip saturator shall not exceed 0.04 kilograms per megagram of asphalt shingle or mineral surfaced roll roofing produced; or 0.4 kilograms per megagram of saturated felt or smooth-surfaced roll roofing produced.
 - ii. Pursuant to 40 CFR 60.472(a)(2), the exhaust gases from the asphalt fume collector controlling the asphalt dip saturator shall not have an opacity greater than 20 percent.
 - iii. Pursuant to 40 CFR 60.472(b)(1) and (3), the particulate matter emissions from the asphalt oxidizer blowing stills shall not exceed 0.67 kilograms per megagram of asphalt charged to the still when a catalyst (ferric chloride) is added to the still and 0.6 kilogram per megagram of asphalt charged to the still during blowing without a catalyst.
 - iv. Pursuant to 40 CFR 60.472(b)(5), the exhaust gases from the blowing stills shall not exceed 0 (zero) percent opacity.
 - v. Pursuant to 40 CFR 60.472(c), the Permittee shall not allow any exhaust gases with opacity greater than 0 (zero) percent to be discharged into the atmosphere from the asphalt storage tanks, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing.
 - vi. Pursuant to 40 CFR 60.472(d), the Permittee shall not allow opacity to exceed 1 percent from discharge into the atmosphere from the mineral handling and storage facilities.
 - c. At all times, the Permittee shall also, to the extent practicable, maintain and operate the asphalt dip saturator, the asphalt oxidizer blowing stills, asphalt storage tanks and mineral handling and storage facilities, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
3. The operation of the two asphalt oxidizer blowing stills shall not exceed the following limits:

Coating Asphalt Production: 30,000 Ton/Mo, 280,000 Ton/Yr

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Emissions</u>	
	<u>lb/Ton</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Particulate Matter (PM)	0.026	0.4	3.6
Carbon Monoxide (CO)	0.52	7.8	72.8
Volatile Organic Material (VOM)	0.017	0.3	2.4
Hydrogen Chloride (HCl)	0.052	0.8	7.3

These limits are based on the maximum coating asphalt production of 20.3 ton/hr in each still, standard emission factors (AP-42, Table 11.2-2) for CO and VOM and the test data for PM and HCl. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus preceding 11 months.

4. The operation and emissions of the asphalt dip saturator/coater shall not exceed the following limits:

Shingles Production: 30,000 Ton/Mo, 290,000 Ton/Yr

<u>Pollutant</u>	<u>Emission Factor</u> <u>lb/Ton</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Particulate Matter (PM)	0.056	0.8	8.1
Carbon Monoxide (CO)	0.0019	0.03	0.3
Volatile Organic Material (VOM)	0.094	1.4	13.6

These limits are based on the maximum shingles production of 41.8 ton/hr, standard emission factors (AP-42 Table 11.2-2) for CO and VOM and the test data for PM. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus preceding 11 months.

5. Operation and emissions of the natural gas fired equipment shall not exceed the following limits:

Natural Gas Usage: 70 mmscf/Mo, 600 mmscf/Yr

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/mmscf)</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Nitrogen Oxides (NO _x)	100	3.5	30.0
Carbon Monoxide (CO)	84	2.9	25.2
Particulate Matter (PM)	7.6	0.3	2.3
Volatile Organic Materials (VOM)	5.5	0.2	1.7

These limits are based on the maximum operating rate and standard emission factors. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus preceding 11 months.

6. This permit is issued based on negligible emission of volatile organic materials from raw asphalt and asphalt product storage tanks. For this purpose emissions from all such sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
7. This permit is issued based on negligible emission of particulate matter from raw asphalt and asphalt products storage tanks, filler/coater mixer, filler, backing material and granule handling operations. For this purpose emission from each group of emission sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.

8. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
- 9a. Pursuant to 40 CFR 60.473(a), the Permittee shall continuously monitor and record the temperature of the gas at the inlet of the asphalt fume collector (HEAF unit) controlling the asphalt dip saturator. The temperature monitoring instrument shall have an accuracy of $\pm 15^{\circ}\text{C}$ over its range.
- b. Pursuant to 40 CFR 60.473(b), the Permittee shall continuously monitor and record the temperature in the combustion zone of the fume incinerator/asphalt heater controlling the two asphalt oxidizer blowing stills. The monitoring instrument shall have an accuracy of $\pm 10^{\circ}\text{C}$ over its range.
10. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
11. 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 odor nuisance.
12. The Permittee shall maintain monthly records of the following items:
 - a. Coating asphalt production in tons/month and tons/year.
 - b. Shingles production in tons/month and tons/year.
 - c. Natural gas usage (mmscf/mo and mmscf/yr).
 - d. The records required by special Condition 9.
13. 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 and 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 request for records during the course of a source inspection.
14. 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 Unit 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.

15. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
 - a. Annual coating asphalt production (Ton/Yr).
 - b. Annual shingles production (Ton/Yr).
 - c. Natural gas consumption (mmscf/yr).

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

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 and Enforcement 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

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

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

DES:VJB:

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the asphalt roofing manufacturing 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 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 operation of the two asphalt oxidizer blowing stills shall not exceed the following limits:

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VJB: