

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE
RENEWAL

Permittee

Freesen, Inc.
Attn: Scott Ketcham
316 South Pearl
Bluffs, Illinois 62621

Application No.: 82060072
Applicant's Designation: BGDMS-2
Subject: Asphalt Plants
Date Issued: July 17, 2000
Location: Rural Route Curran, Curran

I.D. No.: 167808AAI
Date Received: January 19, 2000
Expiration Date: July 17, 2005

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of 2 fuel-oil fired drum-mix asphalt plant, 2 fuel-oil fired asphalt storage tank heater and 2 asphalt storage tanks (30,000-gallon) 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 nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon monoxide (CO) from the asphalt plants to less than major source thresholds, as further 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.
- 2a. These Asphalt Plants are 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 Plants 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. At all times the Permittee shall also maintain and operate the Asphalt Plants, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS, 40 CFR 60.11(d).
- d. The 2 asphalt storage tank (30,000 gallon) is subject to New Source Performance Standards (NSPS), 40 CFR 60 Subpart Kb. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.

- e. At all times, the Permittee shall, to the extent practicable, maintain and operate these tanks, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the New Source Performance Standard.
- f. The Permittee shall fulfill the monitoring of operations requirements of the New Source Performance Standards, 40 CFR 60.116b(a) and (b) for the 2 asphalt storage tanks (30,000 gallon). That is, records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel, shall be maintained and readily accessible for the life of the source.
- 3a. Operation of the Asphalt Plant (BGDMS-2) shall not exceed the following limits:
 Asphalt Concrete Production Rate: 375 tons/hour and 350,000 tons/year
 Asphalt Tank Heater Firing Rate: 1.5 mmBtu/hour
- b. Operation of the Asphalt Plant (AP-4) shall not exceed the following limits:
 Asphalt Concrete Production Rate: 285 tons/hour and 598,500 tons/year
 Asphalt Tank Heater Firing Rate: 2.24 mmBtu/hour
- c. i. At the above location, the Permittee shall not keep, store, or utilize a fuel with a sulfur content greater than one (1) weight percent.
- ii. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- 4a. Emissions and operation of 2 fuel-oil fired drum-mix asphalt plants shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Asphalt Production</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>(Ton/Yr)</u>
Fuel Oil-Fired Drum-Mix Asphalt (BGDMS-2)	70,000	350,000	TSP	0.04	2,800	7.0
			CO	0.036	2,520	6.30
			NO _x	0.075	5,250	13.13
			SO ₂	0.056	3,920	9.80
			VOM	0.008	560	1.40
Fuel-Oil Fired Drum-Mix Asphalt (AP-4)	100,000	598,500	TSP	0.0268	2680	8.02
			CO	0.036	3600	10.77
			NO _x	0.075	7500	22.44
			SO ₂	0.056	5600	16.76
			VOM	0.008	800	2.39

These limits are based on standard AP-42 emission factors, the use of fuel oil with a maximum sulfur content of 1% and a maximum hourly capacity of 375 tons/hour (BGDMS-2) and 285 tons/hour (AP-4). Compliance with annual limits shall be determined from a running total of 12 months of data.

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

<u>Item of Equipment</u>	<u>Heat Input Rating (mmBtu/Hr)</u>	<u>Pollutant</u>	<u>Emission Factor (Lb/1,000 Gal)</u>	<u>Emissions (Lb/Mo)(T/Yr)</u>	
Fuel Oil-Fired Asphalt Tank Heater (BGDMS-2)	1.5	NO _x	20	0.21	0.94
		CO	5	0.05	0.23
		SO ₂	42.6	0.46	2.00
Fuel-Oil Fired Asphalt Tank Heater (AP-4)	2.24	NO _x	20	0.32	1.40
		CO	5	0.08	0.35
		SO ₂	42.6	0.68	2.99

These limits are based on standard AP-42 emission factors and 8,760 hours of operation and the use of fuel oil with a maximum sulfur content of 0.3% as the only fuel fired in the heater. 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 2 asphalt storage tanks (30,000 gallon). For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
- 5a. 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 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 preform 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.
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|---------------------------|----------------|
| Opacity | USEPA Method 9 |
| Location of Sample Points | USEPA Method 1 |
| Gas Flow and Velocity | USEPA Method 2 |
| Particulate Matter | USEPA Method 5 |
| Sulfur Monoxide | USEPA Method 6 |
| Nitrogen Oxide2 | USEPA Method 7 |
- 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.
- 6a. The Permittee shall maintain operating and maintenance logs for the rotary dryer control system, including: operating data, with pressure drop and stack condition, on daily startup and every four hours thereafter.
- b. The Permittee shall maintain monthly and annual records of the following items for each asphalt plant:
 - i. Asphalt concrete production (tons/month and tons/year);
 - ii. Sulfur content and fuel type consumed in the rotary dryer;
 - iii. Sulfur content and fuel type consumed in the asphalt tank heater; and
 - iv. Fuel consumption of the asphalt tank heater (gallons/month and gallons/year).
7. 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.
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 Condition 6, 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. 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.
10. The assembly of this plant 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.
11. This permit supersedes the current permit(s) issued for this location.
- 12a. 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.
 - b. These records 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 upon request.
- 13a. 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:
 - i. 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;
 - ii. A summary of results;
 - iii. Description of test procedures, including description of sampling points, test equipment, and test schedule;
 - iv. Detailed description of test conditions, including:
 - A. Process information, i.e., process rate, aggregate type, fuel type, and firing rate.
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- b. 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
5415 North University
Peoria, Illinois 61614

14. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emissions Report, due May 1st of each year:

- a. Asphalt production (total)
- b. Fuel consumption (total)

This report should be submitted to the Compliance Section at the address indicated in Condition 13b.

15a. Organic liquid by-products or waste materials shall not be used at this source without written approval from the Illinois EPA.

- b. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.

16. 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.

Please note that this permit has been revised using current AP-42 emission factors, operation of an asphalt storage tank, and to incorporate Construction Permit #00040062.

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 3
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emissions Summary

- 1a. Emissions and operation of 2 fuel-oil fired drum-mix asphalt plants shall not exceed the following limits:

<u>Emissions Item of Equipment</u> <u>(Lb/Mo)(Ton/Yr)</u>	<u>Asphalt Production</u>		<u>Pollutant</u>	<u>Emission Factor</u> <u>(Lb/Ton)</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>			
Fuel Oil-Fired	70,000	350,000	TSP	0.04	2,800
Drum-Mix Asphalt (BGDMS-2)			7.0		
			CO	0.036	2,520
			6.30		
			NO _x	0.075	5,250
			13.13		
			SO ₂	0.056	3,920
		9.80			
		VOM	0.008	560	
		1.40			
Fuel-Oil Fired	100,000	598,500	TSP	0.0268	2680
Drum-Mix Asphalt (AP-4)			8.02		
			CO	0.036	3600
			10.77		
			NO _x	0.075	7500
			22.44		
			SO ₂	0.056	5600
		16.76			
		VOM	0.008	800	
		2.39			

These limits are based on standard AP-42 emission factors, the use of fuel oil with a maximum sulfur content of 1% and a maximum hourly capacity of 375 tons/hour (BGDMS-2) and 285 tons/hour (AP-4). Compliance with annual limits shall be determined from a running total of 12 months of data.

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

<u>Emissions Item of Equipment</u> <u>(Lb/Mo)(T/Yr)</u>	<u>Heat Input Rating</u>	<u>Pollutant</u>	<u>Emission Factor</u> <u>(Lb/1,000 Gal)</u>	
	<u>(mmBtu/Hr)</u>			
Fuel Oil-Fired	1.5	NO _x	20	0.21
Asphalt Tank Heater (BGDMS-2)		0.94		
		CO	5	0.05
		0.23		
		SO ₂	42.6	0.46

			2.00	
Fuel-Oil Fired	2.24	NO _x	20	0.32
			1.40	
Asphalt Tank Heater		CO	5	0.08
			0.35	
(AP-4)		SO ₂	42.6	0.68
			2.99	

These limits are based on standard AP-42 emission factors and 8,760 hours of operation and the use of fuel oil with a maximum sulfur content of 0.3% as the only fuel fired in the heater. Compliance with annual limits shall be determined from a running total of 12 months of data.

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