217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Trenwyth Industries
Attn: Jason Schmitz
One Connley Road
Emigsville, Pennsylvania 17318

Application No.: 07060045 I.D. No.: 063420AAC
Applicant's Designation: Date Received: June 15, 2007
Subject: Stone Coating Operation
Date Issued: April 23, 2008 Expiration Date: April 23, 2013
Location: 3400 East Bungalow Road, Channahon, Illinois 60450, Grundy County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of three coating lines controlled by a thermal afterburner, gas fired drying oven (2.0 mmBtu/hour) and a concrete block plant 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:

i. This federally enforceable state operating permit (FESOP) is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for volatile organic material (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year of any combination of such HAPs). As a result, the source is excluded from the 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 all operating permits issued for this location.

2a. 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 the requirements of 35 Ill. Adm. Code 212.122, pursuant to 35 Ill. Adm. Code 212.123(a), except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.

b. 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 unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 Ill. Adm. Code 212.301 and 212.314.

c. 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 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 subsection (c) of 35 Ill. Adm. Code 212.321.

3a. 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 source to exceed 2000 ppm.

b. Pursuant to 35 Ill. Adm. Code Section 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in Sections 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of Subpart G shall apply only to photochemically reactive material.

c. 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 promptly eliminate the odor nuisance.

4a. The Permittee must operate the afterburner when potential emissions from the coating line(s) would exceed Condition 3(b), except as provided in 35 Ill. Adm. Code 215.106.

b. Emissions and operation of 3 coating Lines shall not exceed the following limits:

Material	Pollutant	Emissions (Lbs/Month)	Emissions (Tons/Year)
Coatings	VOM	1,300	35.05
	HAP[A]	8,000	19.90
	HAP[B]		7.90

[A] Total Combined Hazardous Air Pollutants

[B] Any Individual Hazardous Air Pollutant

These limits are based on complete volatilization of the VOM and HAP contents of the materials, 90% overall control efficiency for the afterburner, VOM usage = VOM content of material x material usage, HAP usage = HAP content of material x material usage, and the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

The above limitations were established in Permit 04090089, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These

limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21.

c. i. The VOM emissions shall be determined from the following equation:

$$VE = \sum (U_i \times VC_i) \times (1 - CE) - (W \times VC_W)$$

VE - VOM emissions (tons)

U_i - Individual coating usage (tons)

VC_i - VOM content of the individual coating (weight fraction)

CE - Overall efficiency of the capture and control device (fraction) demonstrated during the most recent stack test; CE = 0 when afterburner is not in operation

W - Certified amount of waste removed from the plant (tons)

VC_W - Certified VOM content of the waste (fraction)

ii. The HAP emissions shall be determined from the following equation:

$$HE = \sum (U_i \times HC_i) \times (1 - CE) - W \times HC_W$$

HE - HAP emissions (tons)

U_i - Individual coating usage (tons)

HC_i - VOM content of the individual coating (weight fraction)

CE - Overall efficiency of the capture and control device (fraction) demonstrated during the most recent stack test; CE = 0 when afterburner is not in operation

W - Certified amount of waste removed from the plant (tons)

HC_W - Certified VOM content of the waste (fraction)

d. This permit is issued based on the usage of a non-volatile organic material (VOM) and non-hazardous air pollutants (HAPs) containing material as the clean-up solvent on the affected equipment.

e. 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.

5. Emissions and operation of the concrete block plant shall not exceed the following limits:

Emission Unit	Throughput (Tons/Mo)	Throughput (Tons/Yr)	PM Emission Factors (Lbs/Ton)	PM Emissions (Lbs/Mo)	PM Emissions (Tons/Yr)
Aggregate Transfer	10,200	101,684	0.0069	71	0.36
Sand Transfer	10,200	101,684	0.0021	22	0.11
Cement Silo Loading*	10,200	101,684	0.00099	11	0.05
Cement Supplement Loading*	10,200	101,684	0.0089	91	0.46
Weigh Hopper Loading	10,200	101,684	0.0051	52	0.26
Mixer Loading	10,200	101,684	0.544	5,549	27.66
					28.90

* Particulate matter control due to dust collector

These limits are based on maximum production and standard emission factors (Table 11.12-2 of AP-42, Volume I, Fifth Edition, June, 2006).

6a. Emissions and operation of natural gas combustion shall not exceed the following limits:

Process	Natural Gas Usage (mmscf/Mo)	Natural Gas Usage (mmscf/Yr)	Pollutant	Emission Factor (Lb/mmscf)	Emissions (Lb/Mo)	Emissions (Ton/Yr)
Natural Gas Combustion	2	22	NO_x	100	200	1.10
			CO	84	168	0.93
			PM	7.6	16	0.09
			VOM	5.5	11	0.07
			SO_2	0.6	2	0.01

These limits are based on standard AP-42 emission factors, natural gas as the only fuel fired in the units, and information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. The above limitations were established in Permit 04090089, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21.

7. Compliance with the annual limits of this permit 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. The afterburner combustion chamber shall be preheated to at least the manufacturer's recommended temperature but no less than 1400°F. This temperature shall be maintained during operation.

b. The afterburner shall be equipped with a continuous monitoring device which is installed, calibrated, maintained, and operated according to vendor's specifications at all times that the afterburner is in use. This device shall monitor the temperature rise across each catalytic afterburner bed or VOM concentration.

c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendation, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment is kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated thereunder.

9a. 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 Conditions 10 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

10a. Pursuant to 35 Ill. Adm. Code 212.107, for both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Condition shall not apply to 35 Ill. Adm. Code 212.301.

b. Pursuant to 35 Ill. Adm. Code 212.109, except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.

c. Pursuant to 35 Ill. Adm. Code 212.110(a), measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 5, 5A, 5D, or 5E.

d. Pursuant to 35 Ill. Adm. Code 212.110(b), the volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.

e. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.

11a. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source’s potential

to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

12a. The Permittee shall collect and record the following information each day:

i. A log of operating time for the capture system, afterburner, monitoring device, and the associated emission unit(s), including date and duration of operation.

ii. A maintenance log for the capture system, afterburner, and monitoring device detailing all routine and non-routine maintenance performed including dates and duration of any outages.

b. The Permittee shall maintain the following records:

i. Name, usage (gallons/month and gallons/year), VOM and HAP content (% weight or lbs/gallon) for each coating;

ii. When emissions from a coating line are not being controlled by the afterubnrer then the name and usage of each day of every coating applied on each line during this period;

iii. Natural gas usage (mmscf/month and mmscf/year); and

iv. Concrete Production (tons/month and tons/year);

v. Cement and fly ash receipts (tons/month and tons/year);

vi. Monthly and annual emissions of VOM, CO, NO_x, PM, SO_2, and HAPs with supporting calculations (tons/month and tons/year).

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) 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.

13. If there is an exceedance of or deviation from 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/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.

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

Please note that the grinders and saws, controlled by associated dust collectors are exempt from state permitting pursuant to 35 Ill. Adm. Code 21.146(aa), (aa), and (jj), respectively.

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

Edwin C. Bakowski, P.E. Date Signed: _____
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:DWH:psj

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this source 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 VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAPs) 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.

	E M I S S I O N S (Tons/Year)						
Emission Unit	VOM	NO_x	CO	PM	SO_2	Single HAP	Total HAPs
3 Coating Lines	35.05						
Concrete Block Plant				28.90			
Natural Gas Fired Combustion Equipment	0.07	1.10	0.93	0.09	0.01		
Totals	35.12	1.10	0.93	28.99	0.01	7.90	19.90

DWH:psj