

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Johns Manville - Rockdale Plant
Attn: Gary Smith
2151 West Channahon Road
Rockdale, Illinois 60436

Application No.: 95120087

I.D. No.: 197809AAF

Applicant's Designation:

Date Received: November 20, 2007

Subject: Roofing Materials Pant

Date Issued: April 2, 2009

Expiration Date: April 2, 2014

Location: 2151 West Channahon Road, Rockdale, Will County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of two (2) perlite storage silos with two (2) baghouses, five (5) perlite expanders (natural gas-fired furnaces) with five (5) cyclones and four (4) baghouses, expanded perlite transfer, perlite mixer/coater controlled by a Venturi scrubber, 5 zone Fesco dryer, Fesco trim saw line with Venturi scrubber, strip saw, mix station with baghouse, taper saw line with baghouse, edge saw line, cant saw line, strip saw, glue holding tank, portable glue tank, sealer holding tank, asphalt emulsion tanks, natural gas-fired asphalt tank heater, glue use tank, propane refueling tank, starch slurry tank, perlite rail unloading, perlite roof cleaning, foam feeder baghouse, pulper, glue laminator, sealer application, parts cleaners, broke system, distribution box, natural gas-fired elevated tank water heater, cooling tower, natural gas-fired laminator heater, natural gas-fired unloading area heater, a general maintenance parts cleaner, dryer, natural gas-fired training area space heaters, and a glue laminator 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 Nitrogen Oxides (NO_x), Particulate Matter less than 10 microns (PM₁₀), and Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP) and 25 tons/year for totaled 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.
 - ii. To limit emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year

shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35

Ill. Adm. Code Part 205, Emission Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.505, except reporting requirements of 35 Ill. Adm. Code 205.300.

- 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. Pursuant to 35 Ill. Adm. Code 212.123(a), 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 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 feet) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow any emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
- e. Pursuant to 35 Ill. Adm. Code 212.307, all unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.
- f. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for

its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.

- g. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
 - i. The name and address of the source;
 - ii. The name and address of the owner or operator responsible for execution of the operating program;
 - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
 - iv. Location of unloading and transporting operations with pollution control equipment;
 - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
 - vi. Estimated frequency of application of dust suppressants by location of materials; and
 - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- h. Pursuant to 35 Ill. Adm. Code 212.313, if particulate collection equipment is operated pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 212.312, emissions from such equipment shall not exceed 68 mg/dscm (0.03 gr/dscf).
- i. 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 of particulate matter from all other similar process 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 35 Ill. Adm. Code 212.321(c).
- 3. 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.
- 4a. Pursuant to 35 Ill. Adm. Code 218.121(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 liters (250 gallons), unless such tank is equipped with a permanent submerged loading pipe or

an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with 35 Ill. Adm. Code 218.108, or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 218.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 218.121(b)(2).

- b. Pursuant to 35 Ill. Adm. Code 218.182(a), no person shall operate a cold cleaning degreaser unless:
 - i. Waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
 - ii. The cover of the degreaser is closed when parts are not being handled; and
 - iii. Parts are drained until dripping ceases.
- c. Pursuant to 35 Ill. Adm. Code 218.182(b), no person shall operate a cold cleaning degreaser unless:
 - i. The degreaser is equipped with a cover which is closed whenever parts are not being handled in the cleaner. The cover shall be designed to be easily operated with one hand or with the mechanical assistance of springs, counter-weights or a powered system if:
 - A. The solvent vapor pressure is greater than 2 kPa (15 mmHg or 0.3 psi) measured at 38°C (100°F);
 - B. The solvent is agitated; or
 - C. The solvent is heated above ambient room temperature.
 - ii. The degreaser is equipped with a device for draining cleaned parts. The drainage device shall be constructed so that parts are enclosed under the cover while draining unless:
 - A. The solvent vapor pressure is less than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38°C (100°F); or
 - B. An internal drainage device cannot be fitted into the cleaning system, in which case the drainage device may be external.
 - iii. The degreaser is equipped with one of the following control devices if the vapor pressure of the solvent is greater than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38°C (100°F) or if the solvent is heated above 50°C (120°F) or its boiling point:
 - A. A freeboard height of 7/10 of the inside width of the tank or 91 cm (36 in), whichever is less; or

- B. Any other equipment or system of equivalent emission control as approved by the Illinois EPA and further processed consistent with 35 Ill. Adm. Code 218.108. Such a system may include a water cover, refrigerated chiller or carbon adsorber.
- iv. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser; and
- v. If a solvent spray is used, the degreaser is equipped with a solid fluid stream spray, rather than a fine, atomized or shower spray.
- d. Pursuant to 35 Ill. Adm. Code 218.182(c)(2)(B), on and after May 30, 2007 no person shall operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 1.0 mmHg (0.019 psi) measured at 20°C (68°F), unless the person is in compliance with the control requirements of 35 Ill. Adm. Code 218.182(c)(4) or is exempt under 35 Ill. Adm. Code 218.182(f) or (g).
- e. Pursuant to 35 Ill. Adm. Code 218.301, 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 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall apply only to photochemically reactive material.
- f. Pursuant to 35 Ill. Adm. Code 218.926, every owner or operator of miscellaneous fabricated product manufacturing process emission unit (i.e., the perlite mixer/coater, glue laminator, and the sealer application) subject to 35 Ill. Adm. Code Part 218 Subpart PP: Miscellaneous Fabricated Product Manufacturing Processes shall comply with the requirements of 218.926(a), (b) or (c):
 - i. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit; or
 - ii. For coating lines: The daily-weighted average VOM content shall not exceed 0.42 kg VOM/l (3.5 lbs VOM/gal) of coating as applied (minus water and any compounds which are specifically exempted from the definition of VOM) during any day. Owners and operators complying with this limitation are not required to comply with 35 Ill. Adm. Code 218.301.
- g. Pursuant to 35 Ill. Adm. Code 218.946, every owner or operator of a miscellaneous formulation manufacturing process emission unit (i.e., the sealer mix tank) subject to 35 Ill. Adm. Code Part 218 Subpart QQ: Miscellaneous Formulation Manufacturing Processes shall comply with the requirements of 35 Ill. Adm. Code 218.946(a) below.

Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.

5. This permit is issued based on the source not being subject to the New Source Performance Standard (NSPS) for Asphalt Processing and Asphalt Roofing Manufacture, 40 CFR 60 Subpart UU, because this source is not an asphalt roofing plant or an asphalt processing plant as defined in 40 CFR 60.471.
- 6a. This permit is issued based on the cooling towers not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial Process Cooling Towers, 40 CFR 63 Subpart Q because the cooling towers are not operated with chromium-based water treatment chemicals.
- b. This permit is issued based on the source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR 63 Subpart LLLLLL. This is because this facility does not meet the definition of an asphalt processing or asphalt roofing manufacturing facility as defined in 40 CFR 63.8698.
7. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- 8a. Pursuant to 35 Ill. Adm. Code 218.121(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 218.121 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- b. Pursuant to 35 Ill. Adm. Code 218.920(d), no limits under 35 Ill. Adm. Code 218 Subpart PP shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 0.91 Mg (1.0 ton) per calendar year if the total emissions from such emission units not complying with 35 Ill. Adm. Code 218.926 does not exceed 4.5 Mg (5.0 tons) per calendar year, provided that this provision shall not apply to an emission unit which is a leather coating line or operation at a source where the criteria of 35 Ill. Adm. Code 218.920(a) are not met.
- c. Pursuant to 35 Ill. Adm. Code 218.940(d), no limits under 35 Ill. Adm. Code 218 Subpart QQ shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar

year if the total emissions from such emission units not complying with 35 Ill. Adm. Code 218.940 does not exceed 4.5 Mg (5.0 tons) per calendar year.

- d. Pursuant to 35 Ill. Adm. Code 218.980(d), no limits under 35 Ill. Adm. Code 218 Subpart TT shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year if the total emissions from such emission units not complying with 35 Ill. Adm. Code 219.986 does not exceed 4.5 Mg (5.0 tons) per calendar year.
- 9a. 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.
- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the baghouses, cyclones, and scrubbers such that the baghouses, cyclones, and scrubbers are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
 - c. The perlite expanders, furnaces, dryers, tank heaters, water heaters, laminator heater, the unloading area heater, and space heaters shall only be operated with natural gas as the fuel. The use of any other fuel in the perlite expanders, furnaces, dryers, tank heaters, water heaters, laminator heater, the unloading area heater, and space heaters requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- 10a Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.
- b. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.
- 11a. The operation and emissions of the expanded perlite transfer and perlite mixer/coater shall not exceed the following limits:
- i. Perlite transfer, expansion, storage, and mix station:

<u>Process</u>	<u>Perlite Production</u>			<u>PM Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lbs/Ton)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Transfer	5,100	51,000	0.0030	0.01	0.08
Expansion	5,100	51,000	0.532	1.36	13.57
Storage Silos	5,100	51,000	0.0089	0.02	0.23
Mix Station	5,100	51,000	0.0173	0.04	<u>0.44</u>
				Total:	14.32

These limits are based on the maximum perlite throughput and standard emission factors (Table 11.12-2, AP-42, Fifth Edition, Volume I, June 2006; Table 11.19.2-2, AP-42, Fifth Edition, Volume I, Update 2004, August 2004; and Table 11.30-1, AP-42, Fifth Edition, Volume I, January 1995). The perlite expansion factor is from source stack testing (The AP-42 factor is 0.29 lb/ton).

ii. Perlite coater and sealer application:

<u>Emission Unit</u>	<u>Coating Usage</u>		<u>VOM Emissions</u>		
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(lbs/gal)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Perlite Coater	52,423	524,236	0.061	1.60	16.01
Sealer Applicator	9,188	91,882	0.03	0.14	<u>1.38</u>
				Total:	17.39

These limits are based on the maximum asphalt coating usage and compliance with in 35 Ill. Adm. Code 218.926(b)(1) is based on the asphalt materials containing less than 3.5 lbs VOM/gallon.

b. Emissions and operation of the taper saw line, edge saw line, the cant saw line and the strip saw accessory shall not exceed the following limits:

<u>1000 Board Feet</u>	<u>Total PM Emissions</u>
<u>(Month)</u>	<u>(Lbs/Month)</u>
<u>(Year)</u>	<u>(Tons/Year)</u>
20,809	2240
208,094	11.14

These limits are based on the maximum process rate, the maximum operating hours and the allowable PM emission rate pursuant to 35 Ill. Adm. Code 212.321.

c. Emissions and operation of the fesco trim saw and strip saw (dry end) shall not exceed the following limits:

<u>1000 Board Feet</u>	<u>Total PM Emissions</u>
<u>(Month)</u>	<u>(Lbs/Month)</u>
<u>(Year)</u>	<u>(Tons/Year)</u>
20,857	1460
208,572	7.30

These limits are based on venturi scrubber control and an emission factor of 0.07 lb PM/1000 board feet.

- d. Particulate matter and VOM emissions and operation of fesco dryer shall not exceed the following limits:

<u>1000 Board Feet</u> <u>(Month)</u>	<u>(Year)</u>	<u>Total PM Emissions</u>		<u>VOM Emissions</u>	
		<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
20,857	208,572	1.49	14.91	0.37	3.65

These limits are based on maximum production and an emission factor of 0.143 lb PM/1000 board feet and 0.035 lb VOM/1000 board feet.

- e. Fuel combustion emissions and operation of the perlite expanders, the 5-zone Fesco dryer, furnaces, dryers, tank heaters, water heaters, laminator heater, the unloading area heater, ovens and space heaters (natural gas-fired equipment) shall not exceed the following limits:

i. Natural gas consumption: 130 mmscf/month and 1,300 mmscf/year.

ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lbs/mmscf)</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Tons/Yr)</u>
Carbon Monoxide (CO)	84.0	5.46	54.60
Nitrogen Oxides (NO _x)	100.0	6.50	65.00
Particulate Matter (PM)	7.6	0.49	4.94
Sulfur Dioxide (SO ₂)	0.6	0.04	0.39
Volatile Organic Material (VOM)	5.5	0.36	3.58

These limits are based on the maximum fuel usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- f. This permit is issued based on negligible emissions of volatile organic material from the following tanks: glue holding tank, portable glue tank, sealer holding tank, asphalt emulsion tanks, asphalt tank, propane refueling tank, glue use tank and starch slurry tank. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 pounds/hour and 0.44 tons/year.
- g. This permit is issued based on negligible emissions of particulate matter from the perlite rail unloading, perlite roof cleaning, foam feeder baghouse and pulper. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 pounds/hour and 0.44 tons/year.
- h. This permit is issued based on negligible emissions of volatile organic material from the glue laminator, sealer application, parts cleaners, broke system, distribution box and cooling towers. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 pounds/hour and 0.44 tons/year.

- i. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. 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.
12. 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).
- 13a. 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 15 and 16 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
14. 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.

- 15a. Pursuant to 35 Ill. Adm. Code 218.928(a), when in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 Ill. Adm. Code 218.926, the owner or operator of a VOM emission unit subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105.
 - b. Pursuant to 35 Ill. Adm. Code 218.948(a), when in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 Ill. Adm. Code 218.946, the owner or operator of a VOM emission unit subject to the requirements of 35 Ill. Adm. Code 218 Subpart QQ shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105.
 - c. Pursuant to 35 Ill. Adm. Code 218.988(a), when in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 Ill. Adm. Code 218.986, the owner or operator of a VOM emission unit subject to the requirements of 35 Ill. Adm. Code Subpart TT shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105.
 - d. Pursuant to 35 Ill. Adm. Code 218.991(a)(4)(A), when in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 Ill. Adm. Code 218 Subpart UU, the owner or operator of a VOM emission source subject to the requirements of 35 Ill. Adm. Code 218 Subpart UU shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105.
16. 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.

17. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 18a. Pursuant to 35 Ill. Adm. Code 218.129(f), the owner or operator of each storage vessel specified in 35 Ill. Adm. Code 218.119 shall maintain readily accessible records of the dimension of the storage vessel and an analysis of the capacity of the storage vessel. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 Ill. Adm. Code Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel.
- b. Pursuant to 35 Ill. Adm. Code 218.182(d)(2), on and after March 15, 1999 all persons subject to the requirements of 35 Ill. Adm. Code 218.182(c)(1)(B), (c)(2)(B), and (c)(3)(B) must maintain records which include for each purchase:
 - i. The name and address of the solvent supplier;
 - ii. The date of purchase;
 - iii. The type of solvent;
 - iv. The vapor pressure of the solvent measured in mmHg at 20°C (68°F); and
 - v. For any mixture of solvents, the vapor pressure of the mixture, as used, measured in mmHg at 20°C (68°F).
- c. Pursuant to 35 Ill. Adm. Code 218.182(e), all records required by 35 Ill. Adm. Code 218.182(d) shall be retained for three years and shall be made available to the Illinois EPA upon request.

- d. Pursuant to 35 Ill. Adm. Code 218.991(a)(2), any owner or operator of a VOM emission unit which is subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP, QQ, RR or TT and complying by the use of emission capture and control equipment shall collect and record all of the following information each day and maintain the information at the source for a period of three years:
 - i. Control device monitoring data.
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source.
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- e. Pursuant to 35 Ill. Adm. Code 218.991(b)(2), any owner or operator of a coating line which is subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP or TT and complying by means of the daily-weighted average VOM content limitation shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
 - i. The name and identification number of each coating as applied on each coating line;
 - ii. The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line; and
 - iii. The daily-weighted average VOM content of all coating as applied on each coating line as defined in 35 Ill. Adm. Code 218.104.
- 19a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions of this permit:
 - i. Records addressing use of good operating practices for the baghouses, cyclones, and scrubbers:
 - A. Records for periodic inspection of the baghouses, cyclones, and scrubbers with date, individual performing the inspection, and nature of inspection; and
 - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Perlite Production (tons/month and tons/year);
 - iii. Gallons of coating used (tons/month and tons/year);

- iv. Production Board production (board feet/month and board feet/year);
 - v. Plant operating hours (hours/year);
 - vi. Natural gas usage (mmscf/month and mmscf/year);
 - vii. VOM content of coating used on perlite (lbs/gallon); and
 - viii. Monthly and annual emissions of VOM, CO, NO_x, PM, SO₂ and HAPs from the source, with supporting calculations (tons/month and tons/year).
- b. The Permittee shall maintain the following records to determine compliance with the 15 tons VOM/ozone season limitation specified in Condition 11:
- i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in this permit; and
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- 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.
20. 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 or 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.

21. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- 22a. Pursuant to 35 Ill. Adm. Code 218.182(d)(6), on and after March 15, 1999, all persons subject to the requirements of 35 Ill. Adm. Code 218.182(b) or (c) shall notify the Illinois EPA of any violation of 35 Ill. Adm. Code 218.182(b) or (c) by sending a description of the violation and copies of records documenting such violations to the Illinois EPA within 30 days following the occurrence of the violation.
- b. Pursuant to 35 Ill. Adm. Code 218.991(a)(3), Any owner or operator of a VOM emission unit which is subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP, QQ, RR or TT and complying by the use of emission capture and control equipment shall notify the Illinois EPA:
 - i. Of any violation of the requirements of 35 Ill. Adm. Code 218 Subpart PP, QQ, RR or TT by sending a copy of any record showing a violation to the Illinois EPA within 30 days following the occurrence of the violation;
 - ii. At least 30 calendar days before changing the method of compliance with Subpart PP or TT from the use of capture systems and control devices to the use of complying coatings, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.991(b)(1) above. Upon changing the method of compliance with Subpart PP or TT from the use of capture systems and control devices to the use of complying coatings, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.991(b).
- c. Pursuant to 35 Ill. Adm. Code 218.991(b)(3), any owner or operator of a coating line which is subject to the requirements of 35 Ill. Adm. Code 218 Subpart PP or TT and complying by means of the daily-weighted average VOM content limitation shall notify the Illinois EPA:
 - i. Of a violation of the requirements of 35 Ill. Adm. Code 218 Subpart PP or TT by sending a copy of any record showing a violation to the Illinois EPA within 30 days following the occurrence of the violation;
 - ii. At least 30 calendar days before changing the method of compliance with 35 Ill. Adm. Code 218 Subpart PP or TT from the use of complying coatings to the use of capture systems and control devices, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.991(a)(1). Upon changing the method of compliance with 35 Ill. Adm. Code 218 Subpart PP or TT from the use of complying coatings to the use of capture

systems and control devices, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.991(a).

24. 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

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

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

Date Signed: _____

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 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.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)						<u>Single HAP</u>	<u>Total HAPs</u>
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>			
Perlite Transfer			0.08					
Perlite Expansion			13.57					
Perlite Storage Silos			0.23					
Perlite/Sealer Mix Station			0.44					
Perlite Coater					16.01			
Sealer Applicator					1.38			
Taper, Edge, Cant & Strip Saw Accessory			11.14					
Fesco Trim Saw & Strip Saw Dry End			7.30					
Fesco Dryer			14.91		3.65			
Glue Holding Tank					0.44			
Portable Glue Tank					0.44			
Sealer Holding Tank					0.44			
Asphalt Holding Tank					0.44			
Asphalt Emulsion Tank					0.44			
Asphalt Tank					0.44			
Propane Refueling Tank					0.44			
Glue Use Tank					0.44			
Starch Slurry Tank					0.44			
Perlite Rail Unloading			0.44					
Perlite Roof Cleaning			0.44					
Pulper			0.44					
Glue Laminator					0.44			
Sealer Application					0.44			
Parts Cleaners					0.44			
Broke System					0.44			
Distribution Block					0.44			
Cooling Tower					0.44			
Foam Feeder Baghouse			0.44					
Natural Gas-Fired Combustion Equipment	<u>54.60</u>	<u>65.00</u>	<u>4.94</u>	<u>0.39</u>	<u>3.58</u>	<u>----</u>	<u>----</u>	
Totals	<u>54.60</u>	<u>65.00</u>	<u>54.37</u>	<u>0.39</u>	<u>31.22</u>	<u>9.0</u>	<u>22.5</u>	

Attachment B - Emissions Reduction Market System (ERMS)

1. Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the Clean Air Act.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources' FESOP or CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 Ill. Adm. Code 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 Ill. Adm. Code 205.500 and 35 Ill. Adm. Code 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the "Alternative Compliance Market Account" (ACMA) (35 Ill. Adm. Code 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 Ill. Adm. Code 205.630).

2. Applicability

Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons, not including VOM emissions from insignificant emission units and activities. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.

3. Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to determine compliance with the above limitation:
 - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures, which may be specified in this permit; and
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by November 30 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 Ill. Adm. Code 205.205(b) and 35 Ill. Adm. Code 205.300.
- c. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and immediately shall comply with 35 Ill. Adm. Code Part 205, including holding allotment trading units (ATUs) for its VOM emissions during the first seasonal allotment period it exceeds 15 tons and each seasonal allotment period, thereafter, pursuant to 35 Ill. Adm. Code 205.150(c).

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