ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19506, SPRINGFIELD, ILLINOIS 62794-9506 – (217) 782-2113

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-2113

CERTIFIED MAIL
7007 0220 0000 0153 6328

CONSTRUCTION PERMIT GRANT -- LIFETIME OPERATING PERMIT DENIAL -- NSPS SOURCE
-REVISED-

PERMITTEE

Fairmount Minerals, LTD.
Attn: Mr. Skip Mizwicki
3450 East 2056th Road
Wedron, Illinois 60557

Application No.: 06030039
Applicant's Designation: ILSANDCOAT
Subject: New Sand Resin-Coating
Date Issued: May 28, 2008
Location: 3450 East 2056th Road, Wedron, LaSalle County

I.D. No.: 099804AAB
Date Received: April 2, 2008
Expiration Date: See Condition 1

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new phenol and/or formaldehyde resin-coating sand facility consisting of the following emission unit(s) and/or air pollution control equipments: 1-belt conveyor and 1-bin vent controlled by air filter; 3-belt conveyor, 2-weigh belt feeders, 6-silo drop points, 3-bucket elevators, 2-raw material storage silos, 6-finished product storage silos, 1-rejects bin, 2-continuous sand coolers, 2-continuous sand heaters, 1-heating unit (natural gas), 4-screens, 2-lump breaker, and 1-continuous mixer controlled by a 30,000 cfm baghouse; 1-truck and rail unloading, 1-belt conveyor, 1-truck and railcar load-out, 1-surge bin & 2-way splitter gate , and 1-bag filling controlled by a 3,000 cfm baghouse, 2-mixers/coaters controlled by a thermal oxidizer as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. The sources may be operated under this permit for six months from the date of issuance of this permit as indicated above.

b. Operation of the emission sources included in this construction permit shall not begin until the associated air pollution control equipment has been constructed and is operational.

2a. Belt conveyor #1 is subject to the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subparts A and OOO. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

b. Pursuant to 40 CFR 60.672(b), no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in 40 CFR 60.672(c), (d), and (e).

c. At all times the Permittee shall maintain and operate the emission sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to 40 CFR 60.11(d).

3a. 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 the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the 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. 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 subsection (c) of 35 Ill. Adm. Code 212.321, pursuant to 35 Ill. Adm. Code 212.321(a).

4. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm, pursuant to 35 Ill. Adm. Code 214.301.

5a. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K shall apply only to photochemical reactive material.

b. Pursuant to 35 Ill. Adm. Code 215.302(a), emissions of organic material in excess of those permitted by 35 Ill. Adm. Code 215.301 are allowable if such emissions are controlled by flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water.

6a. Operation and emissions of one resin-coated line shall not exceed the following limits:

Sand Throughput		E M I S S I O N S								
		VOM			Phenol (HAP)			Formaldehyde (HAP)		
Ton/mo	Ton/Yr	lb/Ton	Ton/mo	Ton/Yr	lb/Ton	Ton/mo	Ton/Yr	lb/Ton	Ton/mo	Ton/Yr
43,800	438,000	1.23	0.81	8.1	1.20	0.79	7.9	0.03	0.02	0.20

These limits are based on representations of the maximum actual VOM and HAP emissions and are determined on the maximum production rate, the maximum resin usage rate (3 pounds of resin per 100 pounds of sand for phenol and 1.5 pounds of resin per 100 pounds of sand for formaldehyde), the maximum VOM and HAP contents of the resin coating (4% by weight phenol, 0.2% by weight formaldehyde, and 4.2% by weight total VOM), a 50% retention of the VOM and HAP material in the coated sand, and a minimum control efficiency of 97% for the thermal oxidizer. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

b The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less tan 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(g) of the Clean Air Act.

7a. Operation and emissions of natural gas fired equipment shall not exceed the following limits:

i. Natural gas consumption shall not exceed 13.0 mmscf/month and 130 mmscf/year.

ii. Emissions from the combustion of natural gas shall not exceed the following:

Pollutant	Emission Factor (lb/mmscf)	Emissions (Ton/Mo)	Emissions (Ton/Yr)
Nitrogen Oxides (NO_x)	100.00	0.65	6.50
Carbon Monoxides (CO)	84.00	0.55	5.46
Volatile Organic Material (VOM)	5.50	0.04	0.36
Sulfur Dioxides (No_2)	0.60	0.00	0.04
Particle Matter (PM)	7.60	0.05	0.49

b. These limits are based on the maximum fuel consumption of the gas fired equipment and standard emission factors given by AP-42 (Tables 1.4-1 and 1.4-2, Supplement D, July 1998). Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

8. Operations and emissions of particulate matter from sand receiving, and handling operations shall not exceed the following limits:

Operation	Throughput (Ton/Mo)	Throughput (Ton/Yr)	Emission Factor PM (Lb/Ton)	Emission Factor PM_{10} (Lb/Ton)	Control Factor (%)	Emissions PM (Ton/Yr)	Emissions PM_{10} (Ton/Yr)
Conveyors #1-5	176,076	1,760,760	0.029	0.0064	99	0.26	0.05
2-Weight Belt Feeder	43,800	438,000	0.029	0.0064	99	0.06	0.01
Silo Drop Points	43,800	438,000	0.029	0.0064	99	0.06	0.01
3-Bucket Elevators	131,400	1,314,000	0.029	0.0064	99	0.19	0.04
10-Storage Silos	132,276	1,322,760	0.020	0.0024	99	0.13	0.02
2-Sand Coolers	43,800	438,000	0.029	0.0064	99	0.06	0.01
2-Sand Heaters	43,800	438,000	0.029	0.0064	99	0.06	0.01
4-Screens	131,400	1,314,000	0.253	0.1200	99	1.66	0.79
2-Lump Breakers	1,752	17,520	0.029	0.0064	99	0.003	0.0006
1-Continuous Mixer	43,800	438,000	0.029	0.0064	99	0.06	0.01
Rail Unloading	21,900	219,000	0.020	0.0024	99	0.02	0.003
Truck Unloading	21,900	219,000	0.020	0.0024	99	0.02	0.003
Truck Load-out	21,900	219,000	0.020	0.0024	99	0.02	0.003
Rail Car Load-out	21,900	219,000	0.020	0.0024	99	0.02	0.003
Bulk Bag Filling	4,300	43,800	0.020	0.0024	99	0.003	0.0005
2-Mixer/Coater2	87,600	876,000	0.029	0.0064	0	12.70	2.80
				Totals		15.32	3.75

These limits define the potential particulate matter emission and are based on the maximum production rate 438,000 tons/yr of dry sand and standard emission factors (SCC-30502503, SCC-30502506, SCC-30502511.FIRE, Version 6.25, September, 2004) with 99% efficiency of the baghouses associated with these units. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

9a. Within 60 days after each affected source achieves maximum production, but not later than 180 days after initial startup pursuant to 40 CFR 60.675 and 60.8, the opacity from the belt conveyor #1 shall be measured 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 perform representative testing within 90 days.

b. i. The following methods and procedures shall be used for testing of emissions, unless the Illinois EPA approves another method. Refer to 40 CFR 60, Appendix A, and 40 CFR 61, Appendix B, for USEPA test methods.

Opacity USEPA Method 9

ii. An opacity test shall consist of 30 sets of 24 consecutive observations.

c. Opacity measurements shall be performed by a certified observer.

10a. Within 60 days after each affected source achieves maximum production, but not later than 180 days after initial startup, VOM emissions including phenol and formaldehyde from the sand resin-coating process shall be measured by an approved testing service, during conditions which are representative of the maximum performance.

b. The following methods and procedures shall be used for testing of emissions, unless the Illinois EPA approves another method. Refer to 40 CFR 60, Appendix A, and 40 CFR 61, Appendix B, for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
VOM, Phenol, Formaldehyde	USEPA Method 18
Capture Efficiency	USEPA Method 204

11a. The Illinois EPA shall be notified prior to these measurements to enable the Illinois EPA to observe these measurements. Notification of the expected date of the measurements shall be submitted to a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five (5) working days prior to the actual date of the measurement. 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 measurements.

b. At least 30 days prior to the actual date of testing, a written test plan shall be submitted to the Compliance Section of the Division of Air Pollution Control for review. This plan shall describe the specific procedures for testing, including as a minimum:

i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

iii. The specific determinations of emissions and operation, which are intended to be made, including sampling and monitoring locations.

iv. The test method(s), which will be used, with the specific analysis method, if the method can be used with different analysis methods.

v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification.

vi. Any proposed use of an alternative test method, with detailed justification.

vii. The format and content of the Source Test Report.

c. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized. The Final Report shall include as a minimum:

i. A summary of results.

ii. General information.

iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

iv. Detailed description of test conditions, including:

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption;

B. Control equipment information, i.e., equipment condition and operating parameters during testing, and

C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

vi. An explanation of any discrepancies among individual tests or anomalous data.

12a. The Permittee shall maintain records of the following to demonstrate compliance with the Conditions of this permit:

i. Names and amount of VOM and HAP-containing raw materials used (tons/month; tons/year);

ii. VOM and HAP content in the raw materials (wt. %);

iii. Monthly and annual VOM and HAP emissions from the resin-coating line with supporting calculations (tons/month; tons/year);

iv. Sand throughput of the sand receiving, and handling operations (tons/month and tons/year);

v. Monthly and annual PM_{10} and PM emissions from sand receiving, and handling operations with supporting calculations, (tons/month and tons/year);

vi. Fuel consumption of the natural gas fired equipment (mmscf/month and mmscf/year); and

v. Monthly and annual CO, NO_x, PM, SO_2, and VOM emissions from the combustion of natural gas with supporting calculations (tons/month and ton/year).

b. 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 the 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
5415 North University
Peoria, Illinois 61614

and one (1) copy of any documents relating to emissions performance testing shall be sent to the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Source Monitoring Unit
9511 West Harrison
Des Plaines, Illinois 60016

The LIFETIME OPERATING permit application is DENIED because the Illinois Environmental Protection Act, Section 9, and 35 Ill. Adm. Code 201.160(b) might be violated.

Pursuant to 35 Ill. Adm. Code 201.160(b), an operating permit may not be issued until the equipment has been constructed or modified in accordance with applicable conditions in this construction permit. The Illinois EPA suggests that you reapply for the operating permit after the construction and NSPS testing are successfully completed in accordance with the construction permit. This information must be submitted in triplicate and should reference the application and I.D. numbers assigned above.

It should be noted that during the analysis of this permit application, it was determined that your facility has the potential to emit more than 10 tons/year of Phenol and will be classified as a major source under the Clean Air Act Permit Program (CAAPP). To avoid the CAAPP permitting requirements, you may want to consider immediately applying for a Federally Enforceable State Operating Permit (FESOP). A FESOP is an operating permit, which contains federally enforceable limits in the form of permit conditions, which effectively restrict the potential emissions of a source to below major source thresholds, thereby excluding the source from the CAAPP. Please contact the Permit Section at 217/782-2113 to request the necessary application forms. Please note that this permit will expire six months from the above issued date.

This permit has been revised to extend the expiration date as requested by the Permittee.

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

Edwin C Bakowski

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

Date Signed: 5-28-2008

ECB:GB:jws

cc: Region 2

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless susperseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

   a. to enter the permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

   b. to have access to and to copy any records required to be kept under the terms and conditions of this permit,

   c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

   d. to obtain and remove samples of any discharge or emissions of pollutants, and

   e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

   b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities,

   c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

   d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

   b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

   a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

   b. upon finding that any standard or special conditions have been violated, or

   c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.

DIRECTORY
ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR

For assistance in preparing a permit application contact the Permit Section.

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section
1021 N. Grand Ave E.
P.O.Box 19506
Springfield, Illinois 62794-9506

or a regional office of the Field Operations Section. The regional offices and their areas of responsibility are shown on the map. The addresses and telephone numbers of the regional offices are as follows:

Illinois EPA
Region 1
Bureau of air, FOS
9511 West Harrison
Des Plaines, Illinois 60016
847/294-4000

Illinois EPA
Region 2
5415 North University
Peoria, Illinois 61614
309/693-5463

Illinois EPA
Region 3
2009 Mall Street
Collinsville, Illinois 62234
618/346-5120