



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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DOUGLAS P. SCOTT, DIRECTOR

217/782-2113

REVISED

JOINT CONSTRUCTION AND LIFETIME PERMIT - NSPS - LIFETIME SOURCE

PERMITTEE

Hillsboro Energy, LLC
Attn: Michael Beyer
925 South Main Street
Hillsboro, Illinois 62049

Application No.: 08020066

I.D. No.: 135030AAZ

Applicant's Designation: COAL MINE/PREP

Date Received: February 23, 2009

Subject: Coal Mine/Preparation Plant

Date Issued: February 25, 2009

Location: Ashmore Trail, Hillsboro

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of an underground coal mine with preparation plant, as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Coal Handling and Processing
Control: Enclosures and Work Practices

1.1.1 Description

Raw coal from the mine will enter the aboveground plant via belt conveyor, which will transfer the coal to a stockpile utilizing a stacking tube. The raw coal from the stockpile will be transferred via underground feeders to a double deck vibrating screen for initial processing. Material from the vibrating screen will take three separate paths: (1) Raw coal already of acceptable size will be transferred to the wet wash (wherein cleaning is performed by flotation in a medium of constant specific gravity, maintained by a dispersion of finely ground magnetite in water); (2) Raw coal that is larger than the desired size will be fed to a crusher and transferred to the wet wash circuit; and (3) Refuse material (rock) will be transferred for later processing for eventual land reclamation.

From the wet wash, material follows two paths: (1) The cleaned coal is transferred to a clean coal stockpile utilizing a stacking tube pending shipping and (2) Refuse material will be transferred directly to an on-site disposal facility.

This plant is being permitted for a maximum annual throughput of 20.0 million tons per year of raw coal processed and 12.0 million tons per year of clean coal produced.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
SR1	Primary Crushing	Equipment Enclosure and Building Enclosure
SCN1	Primary Screening	Equipment Enclosure
BC1-BC7	Conveyor Belts (Transfer Points)	Enclosures
B1-B3	Loadout/Storage Bin	Full Enclosure
M1-M2	Magnetite Bins for use in Wet Wash	Dust Collector
	Storage Piles	Enclosed Stacker Tube, Minimized Drop Height

1.1.3 Applicability Provisions and Applicable Regulations

- a. i. The "affected units" for the purpose of these unit-specific conditions, are the units described in Conditions 1.1.1 and 1.1.2.
- ii. Certain affected units, as follows, are also "affected facilities" for purposes of the New Source Performance Standards (NSPS) for Coal Preparation Plants, 40 CFR 60 Subpart Y, pursuant to 40 CFR 60.250(a) and 60.251. This is because this source processes more than 200 tons per day of coal by breaking or crushing. These affected facilities are subject to applicable requirements of the NSPS, 40 CFR 60 Subpart Y and related requirements in the NSPS, 40 CFR 60 Subpart A, General Provisions.
 - A. Coal processing equipment, i.e., any machinery used to reduce the size of coal or to separate coal from refuse.
 - B. Coal conveying equipment, i.e., equipment used to convey coal to or remove coal from machine used to reduce the size of coal or separate coal from refuse.
 - C. Coal storage systems, i.e., any facility used to store coal except for open storage piles.

- b. i. The affected units that are also "affected facilities" subject to the New Source Performance Standards (NSPS) for Coal Preparation Plants, 40 CFR Part 60, Subpart Y, shall comply with 40 CFR 60.252, which provides that:

No person shall cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, as defined in 40 CFR 60.251, gases which exhibit 20 percent opacity or greater. This limit shall apply at all times except during periods of malfunction, breakdown or startup as defined by 40 CFR 60.2, pursuant to 40 CFR 60.11(c) and 60.252(c).

- ii. At all times, the Permittee shall maintain and operate affected units that are subject to NSPS, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, pursuant to 40 CFR 60.11(d).
- c. Each affected unit (other than storage piles) is subject to 35 IAC 212.321(a), which provides that 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 at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(b). [35 IAC 212.321(a) and 212.323]
- d. Affected units shall comply with 35 IAC 212.301, which provides that emissions of fugitive particulate matter shall not be visible from any process, including any material handling or storage activity, when looking generally toward the zenith at a point beyond the property line of the source, except when the wind speed is greater than 25 miles per hour, as provided by 35 IAC 212.314.
- e. The emission of smoke or other particulate matter from affected units shall not have an opacity greater than 30 percent, except as allowed by 35 IAC 212.124. Compliance with this limit shall be determined by 6-minute averages of opacity measurements in accordance

with USEPA Reference Method 9. [35 IAC 212.109 and 212.123(a)]

1.1.4 Non-Applicability of Regulations of Concern

This permit is issued based on this source not being a major source under the rules for the Prevention of Significant Deterioration (PSD), 40 CFR 52.21. This is because the potential to emit PM₁₀ does exceed 250 tons per year for this plant's source category.

1.1.5 Operational and Production Limits and Work Practices

- a. The production of coal as shipped from the source shall not exceed 12,000,000 tons/year.
- b.
 - i. The Permittee shall implement and maintain control measures for the affected operations, such as enclosure, natural surface moisture, application of dust suppressant, and use of dust collection devices, that minimize visible emissions of particulate matter and provide assurance of compliance with the applicable emission requirements in Condition 1.1.6.
 - ii. The Permittee shall operate and maintain each affected operation with the control measures identified in the records required by Condition 1.1.9.
 - iii. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate each affected operation that is subject to the NSPS in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]

1.1.6 Emission Limitations

Emissions of PM and PM₁₀ from affected units shall not exceed the following limits:

	PM		PM ₁₀	
	(Lbs/Hr)	(Tons/Yr)	(Lbs/Hr)	(Tons/Yr)
Primary Crusher & Screening	0.43	1.7	0.24	1.0
Stockpile(s)	2.23	8.9	1.12	4.5
Other Units*	29.70	<u>118.9</u>	10.20	<u>40.7</u>
Total:		129.5		46.2

* Includes fugitive road dust from coal preparation

1.1.7 Testing Requirements

- a. The Permittee shall conduct performance tests for the affected units for opacity, as specified in 40 CFR 60.8.
- b. In conducting the performance tests, the Permittee shall use methods and procedures in 40 CFR 60.11 and 40 CFR 60 Appendix A, including the specific methods and procedures specified in 40 CFR 60, Subpart Y.

1.1.8 Inspection Requirements

The Permittee shall perform inspections of the affected units on at least a monthly basis, including associated control measures, while the affected units are in use, to confirm compliance with the requirements of Conditions 1.1.5(b) and 1.1.6. These inspections may be scheduled so that only a number of affected units are reviewed during each inspection, provided however, that all affected units be inspected at least once during each month.

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected units:

- a. Applicable records required by the NSPS, pursuant to 40 CFR 60.7(b).
- b. The following production records, in tons/month and tons/year:
 - i. Production of raw coal from the mine;
 - ii. Amount of coal processed; and
 - iii. Amount of coal shipped.
- c. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for the affected units that are conducted on its behalf by individuals who are qualified to make such

observations. For each occasion on which such measurements are made, these records shall include the formal report for the measurements if conducted pursuant to Condition 1.1.7(a), or otherwise the identity of the observer, a description of the measurements that were made, the operating condition of the affected operations, the observed opacity, and copies of the raw data sheets for the measurements.

- d. The Permittee shall keep the following file(s) and log(s):
 - i. File(s) containing the following information for the affected units, with supporting information, which information shall be kept up to date:
 - A. Information related to the dust collection equipment associated with the affected operation, including design control efficiency or performance specifications and maximum design particulate matter emissions, gr/dscf.
 - B. The maximum operating capacity of each affected operation, tons/hour.
- e.
 - i. The Permittee shall maintain a record, which shall be kept up to date, of the control measures currently being implemented for different affected units pursuant to Condition 1.1.6.
 - ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above established control measures are sufficient to assure compliance with the PM emission limitations in Condition 1.1.6 (lbs/hour) at the maximum hourly rate at which equipment can be operated, with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee. This demonstration shall be developed using emission factors for uncontrolled PM emissions, efficiency of control measures, and controlled PM emissions published by USEPA.
- f. Implementation of intermittent control measures, i.e., application of suppressants including identification of the affected unit, identification

of the suppressant, application rate, dates or date and time of applications, and quantity of total suppressant applied;

- g. Application of physical or chemical control agents other than water including the name of the agent; target application concentration, if diluted with water; target application rate; and usage of the agent, gallons/month;
- h. Records of incidents when specified control measures were not present or were not used for an affected unit when it was in operation, including description, date, duration, means by which the incident was identified, and a statement of explanation; and
- i. Emissions of PM and PM₁₀ (tons/month and tons/year).

1.1.10 Notification and Reporting Requirements

- a. The Permittee shall meet all notification requirements of 40 CFR 60.7.
- b. The Permittee shall notify the Illinois EPA, of deviations of affected unit(s) with the permit requirements. Reports shall describe the event, the probable cause of such deviations, and any corrective actions or preventive measures taken.

1.2 Unit: Roadways and Other Open Areas

1.2.1 Description of Emission Units

The affected units for the purpose of these unit-specific conditions are roadways, parking areas, and other open areas at the plant, which may be sources of fugitive particulate matter due to vehicle traffic or wind blown dust. The Permittee will pave all public access roads at the source.

1.2.2 Applicable Federal Emission Standards

None

1.2.3 Applicable State Emission Standards

Affected units shall comply with 35 IAC 212.301, which provides that emissions of fugitive particulate matter shall not be visible from any process, including any material handling or storage activity, when looking generally toward the zenith at a point beyond the property

line of the source, except when the wind speed is greater than 25 miles per hour, as provided by 35 IAC 212.314.

1.2.4 Non-Applicability of Other Regulations

None

1.2.5 Operating Requirements

- a. Good air pollution control practices shall be implemented to minimize and significantly reduce emissions of particulate matter from affected units.
 - i. These practices shall include treatment (e.g., flushing, vacuuming, dust suppressant application, etc.) of paved and unpaved roads and areas that are routinely subject to vehicle traffic for very effective and effective control of dust, respectively (nominal 90 percent control for paved roads and areas and 90 percent control for unpaved roads and areas).
 - ii. After construction of the plant is complete, these practices shall provide for no less than 7,656 feet of pavement on all on-site roads off public roads and highway(s) that are regularly traveled by highway vehicles.
- b. i. The Permittee shall carry out control of fugitive particulate matter emissions from affected units in accordance with a written operating program describing the measures being implemented in accordance with Conditions 1.2.2 and 1.2.4 to control emissions at each unit with the potential to generate significant quantities of such emissions, which program shall be kept current.
 - A. This program shall include maps or diagrams indicating the location of affected units with the potential to generate significant quantities of fugitive particulate matter, with description of the unit (length, width, surface material, etc.) and volume and nature of expected vehicle traffic, or other activity on such unit, and an identification of any roadways that are not considered routinely traveled, with justification.

B. This program shall include a detailed description of the emissions control technique (e.g., vacuum truck, water spray, surfactant spray, water flushing, dust suppressant application, or sweeping) for the affected unit, including: typical application rate; type and concentration of additives; normal frequency with which measures would be implemented; circumstances, in which the measure would not be implemented, e.g., recent precipitation; triggers for additional control, e.g., observation of 10 percent opacity; and calculated control efficiency for particulate matter emissions.

ii. A revised operating program shall be submitted to the Illinois EPA for review within 90 days of a request from the Illinois EPA for revision to address observed deficiencies in control of fugitive particulate emissions.

c. The handling of material collected from any affected unit by sweeping or vacuuming trucks shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods to control emission of particulate matter.

1.2.6 Emission Limitations

The total annual emissions of PM and PM₁₀ from the affected units shall not exceed 33.2 tons/year, and 6.5 tons/year, respectively, as determined by operating information and appropriate engineering calculations.

1.2.7 Emission Testing

None

1.2.8 Operational Monitoring and Measurements

None

1.2.9 Emission Monitoring

None

1.2.10 Records

- a. The Permittee shall keep a file that contains:
 - i. The operating factors used to determine the amount of activity associated with the affected units or the particulate matter emissions from the affected units, with supporting documentation.
 - ii. The designated particulate matter emission rate, in tons/year, from each category of emission unit (e.g., traffic associated with loadout of coal), with supporting calculations and documentation. The sum of these rates shall not exceed the annual limit on emissions in Condition 1.2.6.
- b. The Permittee shall maintain records documenting implementation of the operating program required by Condition 1.2.6, including:
 - i. For each treatment of an affected unit or units, the name and location of the affected unit(s), the date and time, and the identification of the truck(s) or treatment equipment used;
 - ii. For each application of water or chemical solution by truck: application rate of water or suppressant, frequency of each application, width of each application, total quantity of water or chemical used for each application and, for each application of chemical solution, the concentration and identity of the chemical;
 - iii. For application of physical or chemical control agents: the name of the agent, application rate and frequency, and total quantity of agent and, if diluted, percent of concentration, used each day; and
 - iv. Records of incidents when control measures were not used and incidents when additional control measures were used due to particular activities, including description, date, a statement of explanation, and expected duration of such circumstances.
- c. The Permittee shall maintain records for the particulate matter emissions of the affected units

based on plant operating data and the above records for the affected units, including data for implementation of the operating program, and appropriate USEPA emission estimation methodology and emission factors, with supporting calculations.

1.2.11 Notifications

The Permittee shall notify the Illinois EPA within 30 days of deviations from applicable requirements for affected units that are not addressed by the regular reporting required below.

1.2.12 Reporting

The Permittee shall submit quarterly reports to the Illinois EPA for affected units stating the following: the dates any necessary control measures were not implemented; a listing of those control measures; the reasons that the control measures were not implemented; and any corrective actions taken. This information includes, but is not limited to, those dates when controls were not applied based on a belief that application of such control measures would have been unreasonable given prevailing atmospheric conditions. This report shall be submitted to the Illinois EPA no later than 45 calendar days from the end of each calendar quarter.

1.3 Emissions of NO_x, CO and PM from the emergency generator shall not exceed 17.1, 3.9 and 0.5 tons per year, respectively.

2. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state, and federal requirements.

Please note that the diesel storage tanks are exempt from permitting, pursuant to 35 IAC 201.146(n).

This permit has been revised to remove the expiration date since the permit is for a non-major source, and to change the contact person's name.

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

COPY

Original Signed by

Edwin C. Bakowski, P.E.

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

Date Signed:

February 25, 2009

ECB:RPS:jws *W*

cc: Region 3



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 superseded 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.



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

STANDARD CONDITIONS
FOR
LIFETIME OPERATING PERMITS

July 1, 1998

The Illinois Environmental Protection Act [415 ILCS 5/39 (formerly Illinois Revised Statutes, Chapter 111-1/2, Section 1039)] grants the Illinois Environmental Protection Agency authority to impose conditions on permits which it issues.

1. The issuance of this Permit does not release the Permittee from compliance with state and federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or with applicable local laws, ordinances and regulations.
2. The Illinois EPA has issued this Permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be ground for revocation under 35 Ill. Adm. Code 201.166.
3.
 - a. The Permittee shall not authorize, cause, direct or allow any modification, as defined in 35 Ill. Adm. Code 201.102, of equipment, operations or practices which are reflected in the permit application as submitted, until the appropriate permit is obtained from the Illinois EPA.
 - b. The Permittee shall obtain a new or revised permit under Section 39.5 of the Act, if the source no longer meets the applicability criteria of 35 Ill. Adm. Code 201.169 because of changes in emissions units or control equipment.
 - c. The Permittee shall obtain a revised permit prior to any of the following changes at the source:
 - i. An increase in emissions above the amount the emission unit or the source is permitted to emit; or
 - ii. A modification; or
 - iii. A change in operations that will result in the source's noncompliance with a condition in the existing permit; or
 - iv. A change in ownership, company name, or address, so that the application or existing permit is no longer accurate.
4.
 - a. This Permit only covers emission units and control equipment while physically present at the indicated source location. Unless the Permit specifically provides for equipment relocation, this Permit is void for an item of equipment on the day it is removed from the permitted location, or if all equipment is removed.
 - b. The Permittee shall notify the Illinois EPA in writing to withdraw the Permit if all operations the source have been permanently discontinued.

5. The Permittee shall allow any duly authorized agent of the Illinois EPA, upon the presentation of credentials, at reasonable times:
 - a. To enter the Permittee's property where actual or potential effluent, emission or noise units 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 emission 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.
6. The issuance of this Permit:
 - a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted source is 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 source;
 - c. Does not take into consideration or attest to the structural stability of any unit or part of the project; and
 - d. In no manner implies or suggests that the Illinois EPA (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 source.
7. The Permittee shall maintain all equipment covered under this Permit in such a manner that the performance of such equipment shall not cause a violation of the Environmental Protection Act or regulations promulgated thereunder.
8. The Permittee shall maintain a maintenance record on the premises for each item of air pollution control equipment. This records shall be made available to any agent of the Illinois EPA at any time during normal working hours and/or operating hours. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.
9. No person shall cause or allow startup of any emission unit or continued operation during malfunction or breakdown of any emission unit or related air pollution control equipment if such startup or continued operation would cause a violation of an applicable emission standard or permit limitation if such operation is not allowed as a special condition of this Permit, as required by 35 Ill. Adm. Code 201.149.
10. The Permittee shall submit an Annual Emission Report as required by 35 Ill. Adm. Code 201.302 and 35 Ill. Adm. Code Part 254.
11. The Permittee shall pay the annual site fee for the source in accordance with Section 9.5 of the Act.