

AIR QUALITY PERMIT

Issued To: BMP Investments Incorporated
490 North 31st Street, #308
Billings, MT 59101

Permit: #3179-02
Application Complete: 1/03/07
Preliminary Determination Issued: 2/07/07
Department's Decision Issued: 2/23/07
Permit Final: 3/13/07
AFS: #065-0003

An air quality permit, with conditions, is hereby granted to BMP Investments Incorporated (BMP), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

BMP is located in the Bull Mountains approximately 16 miles southeast of Roundup, Montana, and approximately 35 miles northeast of Billings, Montana. The legal description of the site is Section 12, West ½ Section 13, and Section 14, Township 6 North, Range 26 East, in Musselshell County, Montana.

B. Current Permit Action

On November 21, 2006, the Department of Environmental Quality (Department) received a request from BMP for a modification to Permit #3179-01 to add, during the development phase of the mining operation, a run-of-mine (ROM) coal stockpile, a topsoil stockpile, additional haul roads, and associated transfers involved with the coal stockpile and topsoil stockpile. The request will allow BMP to transfer coal from the mine portal to a ROM coal stockpile using haul trucks, a wheeled loader, and a bulldozer. Coal will be dumped to the ground from the mine portal. A wheeled loader will load the haul trucks for transport to the ROM coal stockpile. The haul trucks will dump the coal to the ground and a bulldozer will move the coal to the desired location within the pile. Prior to stockpiling the coal, a bulldozer will prepare the coal stockpile site by removing the topsoil (about 12 inches of soil depth) and move the soil into a pile for storage.

BMP proposed the following equipment and emission sources as listed below:

- ROM coal stockpile (surface area: 520,000 square feet, (ft²))
- ROM coal stockpile site preparation (topsoil removal – dozer)
- Topsoil storage pile (surface area: 100,000 ft²)
- Mobile sources (haul trucks, wheeled loader, and bulldozer)

BMP will add to the ROM coal stockpile until the primary phase of the mining operation begins. After the primary phase of the mining operation has begun, BMP will transfer the coal from the coal stockpile to the new coal preparation plant. BMP is not requesting an increase in the production rate of the development phase. Once the primary phase has begun, the haul trucks, wheeled loader, and the requested haul road operations will not be needed.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Coal production from the facility shall be limited to 1.3 million tons during any rolling 12-month time period for the development phase of the coal mining operation (ARM 17.8.749).
2. Coal production from the facility shall be limited to 4.0 million tons during any rolling 12-month time period for the primary phase of the coal mining operation (ARM 17.8.749).
3. BMP shall not cause or authorize any particulate stack emissions (total particulate), from pneumatic coal cleaning equipment, which exceed the following (ARM 17.8.340 and 40 CFR 60, Subpart Y):
 - a. 0.040 grams per dry standard cubic meter (0.018 grains per dry standard cubic foot); and
 - b. 10% opacity or greater averaged over six consecutive minutes.
4. BMP shall not cause or authorize to be discharged into the outdoor atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, any emissions that exhibit an opacity of 20% percent or greater averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart Y).
5. BMP shall not cause or authorize to be discharged into the atmosphere, from any other source of process or fugitive particulate emissions, any visible emissions that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304, ARM 17.8.308, and ARM 17.8.752).
6. Water and/or chemical dust suppressant shall be available on site and used, as necessary, to maintain compliance with the opacity limitations in Section II.A.4 and Section II.A.5 (ARM 17.8.752).
7. BMP shall use a fabric filter baghouse to control process particulate emissions from surface crushing and screening operations (ARM 17.8.752).
8. BMP shall use a fabric filter baghouse to control process particulate emissions from coal drying and cleaning operations (ARM 17.8.752).
9. BMP may operate one ROM coal stockpile not to exceed a surface area of 11.9 acres (520,000 ft²) (ARM 17.8.749).
10. BMP shall use watering and/or chemical dust suppressants and contouring techniques to control particulate emissions from the ROM coal stockpile, the clean coal stockpile, and the reject stockpiles during the development phase and from the ROM coal stockpile and clean coal product stockpile during the primary phase (ARM 17.8.752).
11. Fall distance shall be minimized during the transfer of waste material and coal to storage piles and during all transfer of material to haul trucks, material traps, hoppers, bins, and conveyors (ARM 17.8.752).

12. BMP may operate one topsoil storage pile not to exceed a surface area of 2.3 acres (100,000 ft²) (ARM 17.8.749).
13. BMP shall employ watering and/or chemical dust suppressant, contouring, compaction techniques, and re-vegetation to reduce emissions from the topsoil storage pile (ARM 17.8.752).
14. BMP shall employ watering and/or chemical dust suppressant, contouring, compaction techniques, and eventual covering with soil and re-vegetation to reduce emissions from waste disposal activities (ARM 17.8.752).
15. BMP shall enclose all coal and waste material conveyors. Conveyors shall be enclosed on the top and sides with a partial opening on the bottom (ARM 17.8.752).
16. BMP shall use flexible chutes, enclosures, and fabric filtration to control emissions from all coal and waste material conveying transfer points and coal loadout operations (ARM 17.8.752).
17. BMP shall utilize a stacker-reclaim (underground) system for movement of product into and out of stockpiles during the primary phase of operations (ARM 17.8.752).
18. Rejects/waste material for the primary phase shall be enclosed in a bin equipped with a hopper for haul truck loading (ARM 17.8.752).
19. BMP shall incorporate a radial stacker with an adjustable chute at the discharge end for both the clean coal and reject stockpiles during the development phase (ARM 17.8.752).
20. BMP shall incorporate a fixed stacker for both the ROM and clean coal stockpiles during the primary phase of the project (ARM 17.8.752).
21. BMP shall develop, implement, and maintain good housekeeping practices to keep coal and waste material transfer locations clean (ARM 17.8.752).
22. BMP shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
23. BMP shall clean up all spilled material from road surfaces (ARM 17.8.752).
24. BMP shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.22 (ARM 17.8.749).
25. Total coal combustion in the facilities/office heating boiler shall be limited to 10 tons during any rolling 12-month time period during the development phase of operations (ARM 17.8.749).
26. Total coal combustion in the facilities/office heating boiler shall be limited to 300 tons during any rolling 12-month time period during the primary phase of operations (ARM 17.8.749).

27. BMP shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants (ARM 17.8.340 and 40 CFR 60, Subpart Y).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start-up of the development phase of the operation, the recipient shall conduct a Method 5 performance source test(s) on the coal wash plant baghouse stack to verify compliance with Section II.A.3.a (ARM 17.8.340 and 40 CFR 60, Subpart Y).
2. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start-up of the development phase of the operation, the recipient shall conduct a Method 9 performance source test(s) on the coal wash plant baghouse stack and all other affected equipment to verify compliance with Section II.A.3.b and Section II.A.4 (ARM 17.8.340 and 40 CFR 60, Subpart Y).
3. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start-up of the primary phase of the operation, the recipient shall conduct a Method 5 performance source test(s) on the coal wash plant baghouse stack to verify compliance with Section II.A.3.a. After the initial source test(s), additional testing shall occur on an every 5-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105, ARM 17.8.340, ARM 17.8.749, and 40 CFR 60, Subpart Y).
4. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start-up of the primary phase of the operation, the recipient shall conduct a Method 9 performance source test(s) on the coal wash plant baghouse stack and all other affected equipment to verify compliance with Section II.A.3.b and Section II.A.4. After the initial source test(s), additional testing shall occur on an every 5-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105, ARM 17.8.340, ARM 17.8.749, and 40 CFR 60, Subpart Y).
5. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
6. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. BMP shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. BMP shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745(l), that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit.

The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by BMP as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
4. BMP shall document, by month, the development phase coal production from the mine. By the 25th day of each month, BMP shall total the development phase coal production for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.1. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.749).
5. BMP shall document, by month, the primary phase coal production from the mine. By the 25th day of each month, BMP shall total the primary phase coal production for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.749).
6. BMP shall document, by month, the development phase coal combustion in the facilities/office heating boiler. By the 25th day of each month, BMP shall total the development phase coal combusted for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.25. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.749).
7. BMP shall document, by month, the primary phase coal combustion in the facilities/office heating boiler. By the 25th day of each month, BMP shall total the primary phase coal combusted during the previous 12 months to verify compliance with the limitation in Section II.A.26. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.749).

D. Ambient Monitoring Requirements

Modeled impacts predicted the BMP project would consume 94% ($141 \mu\text{g}/\text{m}^3$) of the 24-hour ambient standard ($150 \mu\text{g}/\text{m}^3$) and 87% ($43.5 \mu\text{g}/\text{m}^3$) of the annual standard ($50 \mu\text{g}/\text{m}^3$). Based on this information and using the Department Ambient Monitoring Requirements Guidance Statement (10/09/98), the Department, assuming a medium level of confidence, will require ambient monitoring for the mine operations as proposed by BMP when the mine reaches a coal production level of 1.3 million tons during any rolling 12-month period.

BMP shall operate an ambient air quality monitoring network around the project area. The monitoring requirements are more fully described in the Monitoring Plan (Attachment 1).

Exact monitoring locations must be approved by the Department prior to installation or relocation (ARM 17.8.749).

E. Notification

BMP shall provide the Department with written notification of the following dates within the specified time periods (ARM 17.8.749):

1. Once the coal production for the development phase of the coal mining operation reaches 1.3 million tons during any rolling 12-month time period within 15 days after coal production reaches 1.3 million tons during any rolling 12-month time period;
2. Commencement of construction of the primary phase of the coal mine within 30 days after commencement of construction; and
3. Actual start-up date of the primary phase of the coal mine within 15 days after the actual start-up of the coal mine in the primary phase.

SECTION III: General Conditions

- A. Inspection – BMP shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if BMP fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving BMP of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by BMP may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

Attachment 1

AMBIENT AIR MONITORING PLAN BMP Investments Incorporated Permit #3179-02

1. This ambient air monitoring plan is required by air quality Permit #3179-02, which applies to BMP Investments, Incorporated (BMP), coal mining operation south of Roundup, Montana. This monitoring plan may be modified by the Department of Environmental Quality (Department). All requirements of this plan are considered conditions of the permit.
2. BMP shall install, operate and maintain three air monitoring sites in the vicinity of the mine and facilities as described in Item 3 below. The exact locations of the monitoring sites must be approved by the Department and meet all the siting requirements contained in the Montana Quality Assurance Manual including revisions, the EPA Quality Assurance Manual including revisions, and Parts 53 and 58 of the Code of Federal Regulations (CFR), or any other requirements specified by the Department.
3. BMP may request that the Department review the ambient monitoring requirement if changes or commitments are made to reduce emissions from the facility. Any changes or commitments must be approved by the Department. The air monitoring data will be reviewed by the Department to determine if continued monitoring or additional monitoring is warranted.
4. BMP shall monitor the following parameters at the sites and frequencies described below:

| AIRS # & Site Name | UTM Coordinates | Parameter | Frequency |
|---|-----------------|---|-----------------|
| 30-065-XXXX | | PM-10 ¹ 81102 and 85101 | Every third day |
| | | Wind Speed, Direction and Sigma Theta 61101, 61102 and 61106 | Continuous |
| Plant Area (Downwind) 30-065-XXXX | | PM-10 (Collocated ²) 81102 and 85101 | Every sixth day |
| Plant Area (Upwind) 30-065-XXXX | | PM-10 | Every third day |
| ¹ PM-10 = particulate matter less than 10 microns. ² The requirement for a collocated PM-10 sampler may be waived if the monitor operator operates a collocated PM-10 sampler at another site. | | | |

5. Data recovery for all parameters shall be at least 80 percent computed on a quarterly and annual basis. The Department may require continued monitoring if this condition is not met.

6. Any ambient air monitoring changes proposed by BMP must be approved in writing by the Department.
7. BMP shall utilize air monitoring and quality assurance procedures, which are equal to or exceed the requirements described in the Montana Quality Assurance Manual including revisions, the EPA Quality Assurance Manual including revisions, 40 CFR Parts 53 and 58 CFR, and any other requirements specified by the Department.
8. BMP shall submit quarterly data reports within 45 days after the end of the calendar quarter and an annual data report within 90 days after the end of the calendar year. The annual report may be substituted for the fourth quarterly report if all information in 9 below is included in the report.
9. The quarterly report shall consist of a narrative data summary and a data submittal of all data points in AIRS format. This data shall be submitted on a 3 ½" diskette. The narrative data summary shall include:
 - a. A topographic map of appropriate scale with UTM coordinates and a true north arrow showing the air monitoring site locations (identified by AIRS number) in relation to the mine and facilities and the general area
 - b. A hard copy of the individual data points
 - c. The quarterly and monthly means, per site, for particulate matter with an aerodynamic parameter of 10 microns or less (PM₁₀)
 - d. The first and second highest 24-hour concentrations for PM₁₀
 - e. A summary of the data collection efficiency
 - f. A summary of the reasons for missing data
 - g. Precision and accuracy (audit) data
 - h. A summary of any ambient standard exceedances
 - i. Calibration information
10. The annual data report shall consist of a narrative data summary containing:
 - a. A topographic map of appropriate scale with UTM coordinates and a true north arrow showing the air monitoring site locations (identified by AIRS number) in relation to the mine and facilities and the general area
 - b. A pollution trend analysis
 - c. The annual means, per site, for PM₁₀
 - d. The first and second highest 24-hour concentrations, per site, for PM₁₀
 - e. An annual summary of data collection efficiency
 - f. An annual summary of precision and accuracy (audit) data
 - g. An annual summary of any ambient standard exceedances
 - h. Recommendations for future monitoring

11. The Department may audit, or may require BMP to contract with an independent firm to audit, the air monitoring network, the laboratory performing associated analyses, and any data handling procedures at unspecified times. On the basis of the audits and subsequent reports, the Department may recommend or require changes in the air monitoring network and associated activities in order to improve precision, accuracy and data completeness.

Permit Analysis
BMP Investments Incorporated
Permit #3179-02

I. Introduction/Process Description

A. Permitted Equipment

BMP Investments Incorporated (BMP) operates an underground coal mining operation in the Bull Mountains near Roundup, Montana and approximately 35 miles north of Billings, Montana. The facility contains reject piles, clean coal piles, an old coal preparation plant, a new coal preparation plant, a rail loadout, a waste disposal area (WDA), mine ventilation, mine yard area equipment, a quarry, a run-of-mine (ROM) coal stockpile, a topsoil storage pile, and various conveyors and transfer stations.

B. Source Description

BMP operates an underground coal mine that is initially capable of producing up to 1.3 million tons of raw coal per year. The initial phase of this project covers the development stage of the operation. The initial development phase allows for some production while the ultimate primary facilities are constructed. The primary facilities (new coal wash plant and on-site rail loadout) will support a production rate of up to 4.0 million tons of raw coal per year.

The operations at the facility can be classified into four categories: underground mining, coal handling and storage, coal cleaning, and waste disposal. Coal will be mined underground using continuous miner sections and longwall panels. The continuous miner will be used to establish a mineable block of coal, and the longwall equipment will be used to extract the block of coal. A conveyor belt will be used to transfer the ROM coal to a stockpile outside of the mine portal.

Surface material storage facilities will include stockpiles of ROM coal, clean coal, and reject material from the wash plant. Material will be moved from inside the mine to the ROM stockpile on a high capacity belt conveyor. Other conveyors will be used to transport coal from the ROM pile to the coal cleaning facility and from there to the clean coal piles. Coal will be supplied to local consumers from bins with hoppers located at the wash plant facilities. Reject material will be sent to the WDA.

During the development operations, the coal will be transferred from the ROM stockpile to the existing wash plant via a belt conveyor. The coal will pass through the buffer bin to a crusher and sizing screen and then on to the heavy media washer. The final product will be passed through a fluidized bed to air dry the product. A primary coal washing facility will be constructed concurrently with the development operations.

The development phase wash plant will reject 19 percent of the raw coal stream and the new primary facility will reject 13 percent of the raw coal stream. These coal processing wastes and other mine development wastes will be permanently disposed of in the WDA located 1.4 miles northeast of the wash plant. The mine plan calls for revegetation of this area after completion of the project and after the appropriate seed bed preparation.

C. Permit History

Permit #3179-00 was issued to BMP on May 10, 2002, for the project as described above located in Sections 12, 13, and 14, Township 6 North, Range 26 East, in Musselshell County, Montana.

On May 9, 2003, BMP submitted a request to delay the commencement of ambient air monitoring until the mine reaches a coal production level of 1.3 million tons during any rolling 12-month period. The permit action was an administrative amendment to make that change and to update the rule citations in the permit. **Permit #3179-01** replaced Permit #3179-00.

D. Current Permit Action

On November 21, 2006, the Department of Environmental Quality (Department) received a request from BMP for a modification to Permit #3179-01 to add, during the development phase of the mining operation, a ROM coal stockpile, a topsoil stockpile, additional haul roads, and associated transfers involved with the coal stockpile and topsoil stockpile. The request will allow BMP to transfer coal from the mine portal to a ROM coal stockpile using haul trucks, a wheeled loader, and a bulldozer. Coal will be dumped to the ground from the mine portal. A wheeled loader will load the haul trucks for transport to the ROM coal stockpile. The haul trucks will dump the coal to the ground and a bulldozer will move the coal to the desired location within the pile. Prior to stockpiling the coal, a bulldozer will prepare the coal stockpile site by removing the topsoil (about 12 inches of soil depth) and move the soil into a pile for storage.

BMP proposed the following equipment and emission sources as listed below:

- ROM coal stockpile (surface area: 520,000 square feet, (ft²))
- ROM coal stockpile site preparation (topsoil removal – dozer)
- Topsoil storage pile (surface area: 100,000 ft²)
- Mobile sources (haul trucks, wheeled loader, and bulldozer)

BMP will add to the ROM coal stockpile until the primary phase of the mining operation begins. After the primary phase of the mining operation has begun, BMP will transfer the coal from the coal stockpile to the new coal preparation plant. BMP is not requesting an increase in the production rate of the development phase. Once the primary phase has begun, the haul trucks, wheeled loader, and the requested haul road operations will not be needed. **Permit #3179-02** replaces Permit #3179-01.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices), and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

BMP shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than four hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to:

1. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
2. ARM 17.8.221 Ambient Air Quality Standard for Visibility
3. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

BMP must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne Particulate Matter (PM). (2) Under this rule, BMP shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). BMP is considered an NSPS affected facility under 40 CFR 60 and is subject to the requirements of 40 CFR 60, Subpart Y, Standard of Performance for Coal Preparation Plants.

Subpart Y - Coal Preparation Plants - requires a particulate emission limitation of 0.04 grams per dry standard cubic meter, a 10 percent opacity limitation on pneumatic coal cleaning emissions, and an opacity limitation of 20 percent for coal processing, conveying, storage, and loading systems as described in Section II of the permit. The subpart also requires particulate and opacity limitations for thermal dryers. The coal dryer proposed for the development phase of the operation uses ambient air as opposed to a heated gas stream; therefore, that portion of the regulation is not applicable. If at some point, the permittee proposes to use a heated gas stream for coal drying, the Department must be notified in order to determine the monitoring and testing requirements with respect to NSPS applicability. The NSPS applicability for pneumatic coal cleaning and thermal dryers is specific to bituminous coal, while the other provisions apply to all classifications of coal. The applicant reported that the coal to be mined is classified as bituminous.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This section requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. BMP submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 When Permit Required--Exclusions. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. BMP has the PTE more than 25 tons per year of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. BMP submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. BMP submitted an affidavit of publication of public notice for the November 19, 2006, issue of *The Billings Gazette*, a newspaper of general circulation in the city of Billings in Yellowstone County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. A BACT review was required for the current permit action. The BACT analysis is discussed in Section III of this Permit Analysis.
 8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
 9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving BMP of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
 10. ARM 17.8.759 Review of Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
 11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
 12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, subchapters 8, 9, and 10.
 14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

As part of previous permit application processes, the Department required BMP to provide information regarding the ownership relationship between the BMP Bull Mountain Mine #1 Project and the proposed Roundup Power Project.

BMP indicated that BMP is the lessee under a coal lease comprising the coal to be mined at the Bull Mountain Mine #1 coal mine. In addition, BMP has applied for the permit to mine the coal at the mine.

BMP further indicated that the Roundup Power Project will ultimately be owned by private, municipal, and cooperative utilities, and possibly industrial companies. None of these equity owners of the Roundup Power Project have any interest or ownership in BMP nor will they in the future. Currently Bull Mountain Development Company, No. 1, L.L.C., is engaged in the development of the Roundup Power Project. While Bull Mountain Development Company, No. 1, L.L.C., is currently involved in the development of the Roundup Power Project, it intends to transfer all rights it has in the project to the ultimate owners of the Roundup Power Project once those owners have been selected and have entered into appropriate contracts among themselves. BMP currently has no interest or ownership in the Roundup Power Project and it is not anticipated that BMP will, at any time, have any ownership interests or right to control the ultimate entity that will complete development of the Roundup Power Project and thereafter operate such project.

BMP does have a contractual agreement with Bull Mountain Development Company, No. 1, L.L.C., to supply coal and for ultimate ash disposal for the Roundup plant. This contract will be transferred from Bull Mountain Development Company, No. 1, L.L.C., to the plant owners upon completion of the owner's agreements.

Therefore, for the purpose of air permitting, the Department currently considers the Bull Mountain Mine #1 and the Roundup Power Project to be separate and distinct stationary sources as defined under New Source Review.

- G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3179-02 for BMP, the following conclusions were made:

- a. The facility's PTE is less than 100 tons/year for any pollutant (excluding fugitive emissions).
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is subject to 40 CFR 60, Subpart Y.
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source, nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that BMP will be a minor source of emissions as defined under Title V and BMP is not required to obtain a Title V Operating Permit. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit in the future, BMP will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or altered source. BMP shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. The current permit action modifies Permit #3179-01 by allowing a ROM coal stockpile to operate during the development phase of the mining operation and also adds an emission source to the facility (topsoil storage pile); therefore, a BACT analysis was required for the current permit action.

The Department determined that BACT for the ROM coal stockpile, a topsoil storage pile, transfer points, coal handling, topsoil handling, and vehicle traffic on unpaved roads is the continuation of emission control techniques currently used at the mine. This includes chemical stabilization and watering on haul roads and good engineering practices such as minimizing fall distances on material handling operations as necessary to maintain compliance with the opacity and reasonable precautions limitations.

The following pollutants will be emitted as a result of the project:

Pollutant

Source

Particulates (PM/PM₁₀): Fugitive emissions from mining activities, conveying, handling, and loadout of coal; handling, conveying, and disposal of reject/waste material; handling of topsoil and topsoil storage pile; and travel on unpaved roads.

PM/PM₁₀ BACT Analysis

Units with applicable emissions for this BACT analysis include fugitive emissions of particulates from a ROM coal stockpile, a topsoil storage pile, transfer points, coal handling, topsoil handling, and vehicle traffic on unpaved roads.

Fugitive PM/PM₁₀ Emissions

In general, fugitive emissions from open sources are controlled by preventative and/or mitigating measures/techniques. The sources of fugitive particulates may be classified according to the activities, which generate the emissions. The activity classes for the proposed project include: 1) wind erosion of coal stockpile, 2) coal handling and transfer, 3) wind erosion of topsoil storage pile, 4) topsoil handling, and 5) travel on unpaved roads.

Wind erosion affects both the storage piles and outdoor material handling/disposal activities. Preventative techniques reduce emissions by reducing the extent of the source, by modifying the process, or by adjusting work practices. Reduction of emissions of fugitive dust or particulate matter from wind erosion and material handling can be accomplished by enclosure, chemical stabilization, or material wetting. Chemical stabilization will not be considered because it has been deemed technically unfeasible for the proposed project due to the constant activity on the storage piles and because the chemicals used could become air pollutants as the coal is burned.

A significant concern with this operation is the potential for wind erosion from the ROM and clean coal stockpiles. Enclosure of the stockpiles (in barns or silos) was considered through the BACT analysis but was not determined to be technically feasible due to the constant material movement at the source and this type of control has not been required for recently permitted similar sources of particulate emissions. The Department will require that BMP apply surface moisture to the product either during mining activities, washing, or loadout operations and utilize contouring techniques to reduce potential for wind erosion.

The Department determined that the use of reasonable precautions, contouring, and watering, as necessary, to maintain compliance with the 20% opacity limitation will constitute BACT for the coal stockpiles.

The Department determined that the use of reasonable precautions, contouring, watering and/or chemical dust suppressant, compaction techniques, and re-vegetation, as necessary, to maintain compliance with the 20% opacity limitation will constitute BACT for the topsoil storage pile.

Material handling for the purposes of this BACT analysis is broken down into two categories, coal product and topsoil product. Coal handling activities include drops to and from the front-end loader, haul trucks, and ground. Coal handling also includes movement of the pile by a bulldozer. Topsoil handling occurs by moving the topsoil into a storage pile by a bulldozer.

The Department determined that BMP shall minimize the fall distance associated with all material handling activities to the greatest extent that is practically feasible. Further, BMP shall develop, implement, and maintain good housekeeping practices to keep coal and topsoil transfer locations clean.

For particulates generated during loadout operations onto stockpiles, the Department determined that the use of fixed stackers with an underground reclaim system at the permanent facility and a radial stacker with an adjustable chute at the development facility constitutes BACT.

In addition, BMP shall utilize water and/or chemical dust suppressant, as necessary, for the purpose of controlling emissions from the movement of materials by bulldozer or front-end loader. Also, BMP shall use watering and/or chemical dust suppressants, contouring techniques, and eventually soil covering and re-vegetation for controlling particulate emissions from the topsoil storage pile.

Further, BMP must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads. BMP shall clean up all spilled material from roadways to further limit potential fugitive emissions. The Department determined that the use water spray and/or chemical dust suppressant, as necessary, to maintain compliance with the opacity and reasonable precautions limitations will constitute BACT for the haul roads.

In summary, the Department determined that good housekeeping practices, minimization of fall distance for material transfer operations, the application of moisture throughout the mining process, using stackers with a reclaim system for the primary phase of operations and a radial stacker with an adjustable chute for the development phase for pile forming, enclosures for all surface conveyors and conveyor transfer points incorporating fabric filter baghouses or pick-up points, and water spray and/or chemical dust suppressant, as necessary, to maintain compliance with permitted opacity requirements and reasonable precautions limitations constitutes BACT for these sources.

IV. Emission Inventory

Table 1 lists the estimated PM₁₀ emissions for the primary phase of the project, including emission control practices and equipment to be used. Peak and annual emissions on both an uncontrolled and a controlled basis are included. Peak emission rates are based on peak production rates or hours of equipment operation. Peak coal production through the preparation plant has been proposed at 25,000 tons per day. The annual emission rates are based on average production rates and annual operating hours. The annual coal production rate has been proposed at 4 million tons. The original permit application also contains a complete emission inventory for the development phase operations. Peak and annual coal production rates for the development phase have been proposed at 4,000 tons per day and 1.3 million tons per year, respectively.

TABLE 1
Primary Phase PM₁₀ Emissions

| Activity | Control Technology | Control % | Peak Uncontrolled (lb/day) | Peak Controlled (lb/day) | Average Uncontrolled (ton/yr) | Average Controlled (ton/yr) |
|----------------------------------|--------------------|-----------|----------------------------|--------------------------|-------------------------------|-----------------------------|
| New Preparation Plant | | | | | | |
| Drop | gravity feed | 80 | 4.40 | 0.879 | 0.354 | 0.0704 |
| crushing & screening | baghouse | 99.9 | 1.713 | 0.002 | 274.000 | 0.2740 |
| air classifiers | baghouse | 99.9 | 241.667 | 0.242 | 38666.667 | 38.6667 |
| drop to local distribution | gravity feed | 80 | 0.053 | 0.011 | 0.002 | 0.0004 |
| loadout for local | gravity feed | 80 | 0.053 | 0.011 | 0.002 | 0.0004 |
| drop to reject | gravity feed | 80 | 0.485 | 0.097 | 0.039 | 0.0078 |
| loadout for reject | gravity feed | 80 | 0.485 | 0.097 | 0.039 | 0.0078 |
| TOTAL | | | 248.851 | 1.338 | 38941.100 | 39.027 |
| New Clean Coal Stockpile | | | | | | |
| drop to pile | fixed stacker | 85 | 3.773 | 0.566 | 0.304 | 0.0456 |
| reclaim drop | gravity feed | 80 | 3.773 | 0.755 | 0.304 | 0.0609 |
| one bulldozer | | | 4.139 | 4.139 | 0.491 | 0.4912 |
| one bulldozer | | | 4.139 | 4.139 | 0.491 | 0.4912 |
| clean coal pile one wind erosion | | | 95.494 | 95.494 | 0.283 | 0.2834 |
| clean coal pile two wind erosion | | | 95.494 | 95.494 | 0.283 | 0.2834 |
| TOTAL | | | 206.812 | 200.586 | 2.158 | 1.656 |

| Activity | Control Technology | Control % | Peak Uncontrolled (lb/day) | Peak Controlled (lb/day) | Average Uncontrolled (ton/yr) | Average Controlled (ton/yr) |
|--|--------------------|-----------|----------------------------|--------------------------|-------------------------------|-----------------------------|
| Topsoil Storage Pile (2.3 acres) | | | | | | |
| bulldozing | seeding | 85 | 26.64 | 26.64 | 4.86 | 4.86 |
| wind erosion | | | 29.26 | 4.39 | 5.34 | 0.80 |
| TOTAL | | | 55.90 | 31.03 | 10.2 | 5.66 |
| Waste Disposal Area | | | | | | |
| unload truck | gravity feed | 80 | 0.485 | 0.097 | 0.039 | 0.008 |
| bulldozing | | | 6.381 | 6.381 | 1.085 | 1.085 |
| loader | compaction | 90 | 0.485 | 0.485 | 0.039 | 0.039 |
| wind erosion | | | 67.927 | 6.793 | 0.071 | 0.007 |
| scraper | | | 190.694 | 95.347 | 32.418 | 16.209 |
| TOTAL | | | 265.971 | 109.102 | 33.651 | 17.347 |
| Rail Loadout | | | | | | |
| drop to bin | gravity feed | 80 | 3.773 | 0.755 | 0.304 | 0.061 |
| drop to car | gravity feed | 80 | 3.773 | 0.755 | 0.304 | 0.061 |
| TOTAL | | | 7.546 | 1.509 | 0.609 | 0.122 |
| Mine Ventilation | | | | | | |
| trucks etc. | | | 0.202 | 0.202 | 0.034 | 0.034 |
| below ground blasting | | | 16.640 | 16.640 | 0.100 | 0.100 |
| TOTAL | | | 16.842 | 33.685 | 16.977 | 0.268 |
| ROM Stockpile (11.9 acres) | | | | | | |
| Load into pile | fixed stacker | 85 | 4.397 | 0.660 | 0.352 | 0.053 |
| Reclaim drop | gravity feed | 80 | 4.397 | 0.879 | 0.352 | 0.070 |
| Loader | | | 4.397 | 4.397 | 0.352 | 0.352 |
| Bulldozing | Wet material | 85 | 4.139 | 4.139 | 0.250 | 0.250 |
| Wind erosion | Wet material | 85 | 125.04 | 18.76 | 22.82 | 3.42 |
| Coal transfer from portal to ground (development phase) | | | 0.57 | 0.57 | 0.104 | 0.104 |
| Coal transfer from ground into haul trucks (development phase) | | | 0.57 | 0.57 | 0.104 | 0.104 |
| Coal transfer from haul trucks to ground (development phase) | | | 0.57 | 0.57 | 0.104 | 0.104 |
| Bulldozer moving coal onto or within coal pile (development phase) | | | 0.57 | 0.57 | 0.104 | 0.104 |
| TOTAL | | | 144.65 | 31.11 | 24.54 | 4.56 |
| Office | | | | | | |
| Combustion | | | 0.982 | 0.982 | 0.135 | 0.135 |
| TOTAL | | | 0.982 | 0.982 | 0.135 | 0.135 |
| Quarry | | | | | | |
| Surface blasting | | | 203.752 | 203.752 | 0.204 | 0.204 |
| TOTAL | | | 203.752 | 203.752 | 0.204 | 0.204 |

| | | | | | | |
|--------------------------|-----------|----|---------|---------|---------|--------|
| Shop | | | | | | |
| Forklift | | | 12.229 | 12.229 | 2.079 | 2.079 |
| TOTAL | | | 12.229 | 12.229 | 2.079 | 2.079 |
| Mine Yard Area One | | | | | | |
| Backhoe | Watering | 85 | 12.229 | 1.834 | 2.079 | 0.312 |
| Forklift | Watering | 85 | 12.229 | 1.834 | 2.079 | 0.312 |
| Loader | Watering | 85 | 30.573 | 4.586 | 5.197 | 0.780 |
| Trucks | Watering | 85 | 412.734 | 61.910 | 70.165 | 10.525 |
| Bob cat | Watering | 85 | 55.031 | 8.255 | 9.355 | 1.403 |
| TOTAL | | | 522.796 | 78.419 | 88.875 | 13.331 |
| Mine Yard Area Two | | | | | | |
| Backhoe | Watering | 85 | 12.229 | 1.834 | 2.079 | 0.312 |
| Forklift | Watering | 85 | 12.229 | 1.834 | 2.079 | 0.312 |
| Loader | Watering | 85 | 30.573 | 4.586 | 5.197 | 0.780 |
| Trucks | Watering | 85 | 412.734 | 61.910 | 70.165 | 10.525 |
| Bob cat | Watering | 85 | 55.031 | 8.255 | 9.355 | 1.403 |
| TOTAL | | | 522.796 | 78.419 | 88.875 | 13.331 |
| Conveyors | | | | | | |
| Portal to ROM stockpile | enclosure | 85 | 2.500 | 0.375 | 0.200 | 0.030 |
| ROM prep plant | enclosure | 85 | 2.500 | 0.375 | 0.200 | 0.030 |
| Prep plant to clean coal | enclosure | 85 | 2.145 | 0.322 | 0.173 | 0.026 |
| clean coal pile to rail | enclosure | 85 | 2.145 | 0.322 | 0.173 | 0.026 |
| TOTAL | | | 9.290 | 1.394 | 0.746 | 0.112 |
| Unpaved Roads | | | | | | |
| Worker traffic | Watering | 85 | 91.712 | 13.757 | 15.591 | 2.339 |
| grader | Watering | 85 | 22.950 | 3.443 | 3.902 | 0.585 |
| water truck | Watering | 85 | 10.386 | 1.558 | 1.766 | 0.265 |
| tractor low boy | Watering | 85 | 8.059 | 1.209 | 96.708 | 14.506 |
| haul to WDA | Watering | 85 | 738.731 | 110.810 | 59.099 | 8.865 |
| Haul trucks | Watering | 85 | 86.30 | 12.95 | 15.75 | 2.36 |
| Loader | Watering | 85 | 25.48 | 3.82 | 4.65 | 0.70 |
| Bulldozer | Watering | 85 | 7.01 | 1.05 | 1.28 | 0.19 |
| TOTAL | | | 990.63 | 148.60 | 198.75 | 29.81 |
| GRAND TOTAL | | | 3209.0 | 932.2 | 39428.3 | 127.6 |

Table 2 lists the estimated gaseous emissions for the primary phase of the mine operation. The original permit application for the air quality permit contains a detailed breakdown of specific sources for these emissions as well as the development phase emissions.

| TABLE 2 Primary Phase Gaseous Pollutant Emissions | |
|--|-------------------------------|
| Pollutant | Potential to Emit (tons/year) |
| Nitrogen Oxides | 3.6 |
| Carbon Monoxide | 10.7 |
| Sulfur Dioxide | 0.3 |

V. Existing Air Quality

Baseline air quality (particulate) was monitored in the project area. The measurements included both TSP (total suspended particulate) and PM₁₀.

The period of record submitted with the application is from March 1989 through March 1992. All values are well below applicable ambient air quality standards. The following table summarizes the data. (Values are reported in micrograms per cubic meter.)

| Year | Parameter | 24-Hour High Reading | 24-Hour Second Highest | Annual Average | No. of Samples |
|---|-----------|-------------------------|---------------------------|-------------------|-------------------|
| 1989 | TSP | 39 | 33 | 14 | 51 |
| | PM-10 | 53* | 19 | 9 | 51 |
| 1990 | TSP | 59 | 58 | 13 | 59 |
| | PM-10 | 29 | 27 | 9 | 57 |
| 1991 | TSP | 42 | 39 | 14 | 56 |
| | PM-10 | 24 | 21 | 9 | 57 |
| *This high PM-10 value was recorded on June 27; no TSP value was recorded on that date. | | | | | |

The state and federal PM-10 standards are as follows:

| | | |
|----------------|---|-----------------------|
| Annual Average | = | 50 µg/m ³ |
| 24-hour | = | 150 µg/m ³ |

Meteorological data was collected at the site as well. The predominant wind direction is from the northwest. In the immediate plant area the predominant wind is up the P.M. draw. There is also a significant southeasterly component down the draw.

Current local sources of air pollution in the area include vehicle traffic (unpaved roads), the PM Mine, agricultural activities, and home heating. Operational air monitoring requirements for the project are contained in Attachment 1.

VI. Ambient Air Impact Analysis

Project Summary

The current permit action is to add, during the development phase of the mining operation, a ROM coal stockpile, a topsoil stockpile, additional haul roads, and associated transfers involved with the coal stockpile and topsoil stockpile.

The mine project will include two phases: the development phase and the primary phase. During the development phase of the operation, BMP proposes to initially mine at a rate of 1.3 million tons of raw coal per year. The initial development phase will allow for some production while the primary phase facilities are constructed. These primary facilities include a new coal wash plant and an onsite rail loadout, which will support production of up to 4 million tons of coal per year.

Review of Modeling Analysis

Air dispersion modeling was not required for the current permitting action. However, GeoResearch Inc. performed an air quality impact analysis for this project for the initial application submitted by Meridian Minerals Company on January 16, 1991, and GeoResearch performed a second analysis for the Addendum dated February 25, 1992, that was submitted to the Department on March 5, 1992. The analysis used the EPA Industrial Source Complex Model (ISCST and ISCLT) to estimate the impacts of the particulates, NO_x, SO₂, and CO. The analysis included both the development phase and the primary phase, which originally included the ROM coal stockpile. The 1992 results showed that predicted ambient impacts for this facility would not cause or contribute to a violation of any state or federal air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: BMP Investments Incorporated
490 North 31st Street, #308
Billings, MT 59101

Air Quality Permit Number: 3179-02

Preliminary Determination Issued: 02/07/07

Department Decision Issued: 02/23/07

Permit Final: 03/13/07

1. *Legal Description of Site:* BMP is located in the Bull Mountains approximately 16 miles southeast of Roundup, Montana, and approximately 35 miles northeast of Billings, Montana. The legal description of the site is Section 12, West ½ Section 13, and Section 14, Township 6 North, Range 26 East, in Musselshell County, Montana.
2. *Description of Project:* BMP submitted a permit application to modify Permit #3179-01 to add, during the development phase of the mining operation, a ROM coal stockpile, a topsoil stockpile, additional haul roads, and associated transfers involved with the coal stockpile and topsoil stockpile.
3. *Objectives of the Project:* The issuance of Permit #3179-02 would allow BMP to implement the above mentioned project during the development phase of the mining operation.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the Montana Air Quality permit to the facility. However, the Department does not consider the "no-action" alternative to be appropriate because BMP demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in Permit #3179-02.
6. *Regulatory Effects on Private Property Rights:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

| | | Major | Moderate | Minor | None | Unknown | Comments Included |
|----|---|-------|----------|-------|------|---------|-------------------|
| A. | Terrestrial and Aquatic Life and Habitats | | | X | | | yes |
| B. | Water Quality, Quantity, and Distribution | | | X | | | yes |
| C. | Geology and Soil Quality, Stability, and Moisture | | | X | | | yes |
| D. | Vegetation Cover, Quantity, and Quality | | | X | | | yes |
| E. | Aesthetics | | | X | | | yes |
| F. | Air Quality | | | X | | | yes |
| G. | Unique Endangered, Fragile, or Limited Environmental Resource | | | X | | | yes |
| H. | Demands on Environmental Resource of Water, Air, and Energy | | | X | | | yes |
| I. | Historical and Archaeological Sites | | | X | | | yes |
| J. | Cumulative and Secondary Impacts | | | X | | | yes |

Summary of Comments on Potential Physical and Biological Effects:

The following comments have been prepared by the Department.

- A. Terrestrial and Aquatic Life and Habitats;**
- B. Water Quality, Quantity, and Distribution;**
- C. Geology and Soil Quality, Stability, and Moisture;**
- D. Vegetation Cover, Quantity, and Quality; and**
- E. Aesthetics**

Overall impacts to the physical and biological environmental parameters noted above would be minor because the activities would occur within the current mining area with little or no additional surface disturbance. Furthermore, the current permit action would allow operation of a ROM coal stockpile, during the development phase of the mining operation, within the currently approved mine plan area. This would result in a relatively small increase in air pollutant emissions above those associated with the current mining rate. In the maximum emission scenario, there would be a particulate emission increase of less than 10 percent above the current permitted level. All of the increase would be fugitive emissions. There would be a small increase in air pollutant deposition in the area and in the use of water for dust suppression. Overall, the demands and impacts to terrestrial and aquatic life and habitats; water quality, quantity, and distribution; geology and soil quality, stability, and moisture; vegetation cover, quantity, and quality; and aesthetics related to the increased activities would be minor.

F. Air Quality

The air quality impacts from the increased activities would be minor because Permit #3179-02 would include conditions limiting the visible emissions (opacity) from the plant operations, and would require water and/or chemical dust suppressant and other means to control air pollution. The plant operations would continue to be limited by Permit #3179-02 to total emissions of 250 tons per year or less from non-fugitive sources, including any additional equipment used at the site. This facility would continue to be considered a minor source of air pollution for the Title V program, because the facility’s potential emissions would be below 100 tons per year. Overall, air emissions from the increased activities would have minor impacts on air quality in the immediate and surrounding area because of the relatively small amount of additional pollutants

generated. Air pollution controls currently used at the facility, such as fabric filtration, chemical stabilization and/or water suppression, would reduce air emissions from equipment operations, storage piles, and haul roads.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The increased activities would occur within the previously disturbed industrial site at the mine. As part of the MEPA analysis on initial mine development, assessments of potential impacts to unique endangered, fragile, or limited environmental resources were done by the Department, including contact with the Montana Natural Heritage Program – Natural Resource Information System (NRIS) to identify species of special concern at the mine site. The likelihood that the operation of the ROM coal stockpile during the development phase of the mining operation would impact unique endangered, fragile, or limited environmental resources would be minor because of the relatively small increase in emissions, the lack of change to the mine plan area, and the conditions placed in Permit #3179-02.

H. Demands on Environmental Resources of Water, Air, and Energy

The increased activities would require minimal additional amounts of water, air, and energy. Limited amounts of water would be required to be used for dust control for the equipment, product stockpiles, and surrounding haul roads. Further, as described in Section 7.F. of this EA, pollutant emissions generated from the operation would have minimal impacts on air quality in the immediate and surrounding area because of the relatively small increase in emissions, the lack of change to the mine plan area, and the conditions placed in Permit #3179-02. Overall, the demands and impacts to the environmental resource of water, air, and energy related to the increased activities would be minor.

I. Historical and Archaeological Sites

The increased activities would occur within the previously disturbed industrial site at the mine. According to past correspondence from the Montana State Historic Preservation Office, there is low likelihood of adverse disturbance to any known archaeological or historic site because of previous industrial disturbance within the area. Therefore, the likelihood that the increased activities would have an impact on historical or archaeological sites would be minor.

J. Cumulative and Secondary Impacts

The increased activities from the project would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment. There would be a relatively small increase in air emissions of particulate matter and PM₁₀ and no increase in the mine plan area.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

| | | Major | Moderate | Minor | None | Unknown | Comments Included |
|----|---|-------|----------|-------|------|---------|-------------------|
| A. | Social Structures and Mores | | | | X | | yes |
| B. | Cultural Uniqueness and Diversity | | | | X | | yes |
| C. | Local and State Tax Base and Tax Revenue | | | X | | | yes |
| D. | Agricultural or Industrial Production | | | X | | | yes |
| E. | Human Health | | | X | | | yes |
| F. | Access to and Quality of Recreational and Wilderness Activities | | | X | | | yes |
| G. | Quantity and Distribution of Employment | | | | X | | yes |
| H. | Distribution of Population | | | | X | | yes |
| I. | Demands for Government Services | | | X | | | yes |
| J. | Industrial and Commercial Activity | | | X | | | yes |
| K. | Locally Adopted Environmental Plans and Goals | | | | X | | yes |
| L. | Cumulative and Secondary Impacts | | | X | | | yes |

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:

The following comments have been prepared by the Department.

- A. Social Structures and Mores**
B. Cultural Uniqueness and Diversity

The Department determined that the current permit action would not have an impact on the social structures and mores or the cultural uniqueness and diversity of this area of operation because the operation of a ROM coal stockpile, during the development phase of the mining operation, is relatively minor and the activities would occur within the previously disturbed industrial area. The surrounding area would remain unchanged as a result of the proposed project.

- C. Local and State Tax Base and Tax Revenue**

The increased activities would have little or no impact on the local and state tax base and tax revenue. No full time, permanent employees would be added as a result of issuing Permit #3179-02. The increase in the amount of equipment at the site would be minimal.

- D. Agricultural or Industrial Production**

The increased activities would occur within the previously disturbed industrial area; therefore, the Department would not expect an impact to or displacement of agricultural production. The increased activities would be relatively small compared to the existing mining operation and would have only a minor impact on local industrial production. In addition, the facility would operate within the permitted mining area, which upon completion of mining operations, would be reclaimed, as specified, by the Environmental Management Bureau (EMB) of the Department.

Minor and temporary effects may occur to agricultural land, and the EMB would be responsible for oversight of any reclamation activities. Therefore, impacts to agricultural or industrial production would be minor.

E. Human Health

Permit #3179-02 would incorporate conditions to ensure that the increased activities would be accomplished in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As noted in Section 7.F. of this EA, the air emissions from this facility would be minimized by fabric filtration, water spray and/or chemical stabilization, and opacity limitations. Furthermore, the increased activities and resulting air emissions would be relatively small. Therefore, any associated impacts to human health would be minor based as a result of compliance with the applicable standards and operational conditions and limitations incorporated within the permit.

F. Access to and Quality of Recreational and Wilderness Activities

The increased activities would occur within the previously disturbed industrial property and would not impact access to recreational and wilderness activities. Minor impacts on the quality of recreational activities could be created from the noise from the increased activities; however, these would be small in comparison to existing activities. Emissions from the operation would be minimized as a result of the conditions that would be placed in Permit #3179-02. Therefore, the associated impacts on the access to and quality of recreational and wilderness activities would be minor.

**G. Quantity and Distribution of Employment; and
H. Distribution of Population**

As a result of the relatively small size of the operations associated with the increased activities, the quantity and distribution of employment and the distribution of population in the area would not be impacted. No full time, permanent employees would be added as a result of issuing Permit #3179-02 and no related secondary employment would be expected. Therefore, no impacts to the distribution of population in the area would be expected.

I. Demands of Government Services

Minor increases may be observed in the local traffic on existing roads in the area. Very limited additional government services would be required relative to these operations. Overall, demands for government services would be minor.

J. Industrial and Commercial Activity

The increased activities would represent only a minor increase in the industrial activity in the area because the operation of the ROM coal stockpile would operate during the development phase of the mining operation. No additional commercial activity would result because no secondary activities are expected to move to the area as a result of the increased activities. Overall, only a minor increase in industrial and commercial activity would be expected as a result of the proposed project.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals that would be affected by the proposed project. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

The increased activities would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because of the small increase in potential air emissions. Increases in traffic would have minor impacts on the local traffic in the immediate area. Because the project would be a relatively small increase of particulate emissions compared to the current operation, only minor economic impacts to the local economy would be expected. New businesses would not be drawn to any areas and permanent jobs would not be created or lost as a result of the proposed project. Overall, the proposed project would have minor impacts to the cumulative and secondary impacts to the social and economic aspects of the human environment.

Recommendation: An Environmental Impact Statement (EIS) is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from the proposed increase in activities are minor; therefore, an EIS is not required. In addition, the source would be applying the Best Available Control Technology and the analysis indicates compliance with all applicable air quality rules and regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Department of Environmental Quality - Permitting and Compliance Division; Montana Natural Heritage Program; and State Historic Preservation Office.

Individuals or groups contributing to this EA: Montana Department of Environmental Quality (Air Resources Management Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

EA prepared by: Eric Thunstrom

Date: January 10, 2007