



Montana Department of
ENVIRONMENTAL QUALITY

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January 27, 2014

Brandon Strahan
Wolf Mountain Coal, Inc.
P.O. Box 6206
Sheridan, WY 82801

Dear Mr. Strahan:

Montana Air Quality Permit #4962-00 is deemed final as of January 25, 2014, by the Department of Environmental Quality (Department). This permit is for a stoker coal processing and load-out facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie Merkel
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3626

Doug Kuenzli
Environmental Science Specialist
Air Resources Management Bureau
(406) 444-4267

JM:DCK
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4962-00

Wolf Mountain Coal, Inc.
P.O. Box 6206
Sheridan, WY 82801

January 25, 2014



MONTANA AIR QUALITY PERMIT

Issued to: Wolf Mountain Coal, Inc.
P.O. Box 6206
Sheridan, WY 82801

MAQP: #4962-00
Application Complete: 11/18/2013
Preliminary Determination Issued: 12/23/2013
Department's Decision Issued: 01/09/2014
Permit Final: 01/25/2014
AFS #: 777-4962

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Wolf Mountain Coal, Inc. (WMC), 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. Permitted Equipment

WMC is proposing to install and operate a stoker coal processing and load out facility. A complete list of the permitted equipment is included in Section I.A of the permit analysis.

B. Plant Location

The proposed facility is to be located approximately 7 miles north of Decker, Montana and adjacent to the Spring Creek Mine. The legal site location description of this facility is the Northwest $\frac{1}{4}$ of Section 18, Township 8 South, Range 40 East in Big Horn County.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. WMC shall install, operate, and maintain the following emission control equipment to provide the maximum particulate pollution control for which the equipment was designed (ARM 17.8.752):
 - a. 3-sided roofed enclosure (stilling shed) on the truck dump equipment with staggered curtains.
 - b. 3-sided roofed enclosure on the fine storage pile.
 - c. Placement of the screening and crushing unit(s) within a building, structure or equivalent full enclosure.
 - d. Engineered transfer chutes on conveyor transfers and storage silos.
 - e. Oiling system on storage and truck loadout silos.
2. Coal processing shall be limited to a throughput of not more than 2,102,400 tons per rolling 12-month period (ARM 17.8.749).
3. WMC shall minimize product drop height during coal loading, unloading, and transfer activities (ARM 17.8.752).

4. WMC shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
 5. WMC 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).
 6. WMC 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.4 (ARM 17.8.749 and ARM 17.8.752).
 7. WMC shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 Code of Federal Regulations (CFR) 60, Subpart Y, *Standards of Performance for Coal Preparation Plants and Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart Y).
- B. Testing Requirements
1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
 2. The Montana Department of Environmental Quality (Department) may require further testing (ARM 17.8.105).
- C. Operational Reporting Requirements
1. WMC 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 for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).
 2. WMC shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, 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(1)(d) (ARM 17.8.745).
 3. All records compiled in accordance with this permit must be maintained by WMC 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. WMC shall document, by month, the total amount of coal processed throughput. By the 25th of each month, WMC shall total the coal throughput for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. The information for the previous months shall be submitted along with the annual emissions inventory (ARM 17.8.749).

D. Notification

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

1. Actual start-up date of the stoker coal processing facility, within 15 days after the actual start-up.

SECTION III: General Conditions

- A. Inspection – WMC 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 (Continuous Emission Monitoring System (CEMS), Continuous Emission Rate Monitoring System (CERMS)) 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 WMC fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving WMC 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, failure to pay the annual operation fee by WMC may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis
Wolf Mountain Coal, Inc.
MAQP #4962-00

I. Introduction/Process Description

Wolf Mountain Coal, Inc. (WMC) is proposing to install and operate a stoker coal processing and truck loadout facility. The facility will be located adjacent to the entrance to the Spring Creek Coal mine, in the Northwest ¼ of Section 18, Township 8 South, Range 40 East in Big Horn County.

A. Permitted Equipment

The facility will have a coal processing throughput capacity of approximately 240 tons per hour (TPH) and 250,000 tons per year. Equipment used at this facility includes, but is not limited to, the following:

- Truck Dump
 - 3-sided stilling shed and side curtains (dust control)
 - Grizzly Screen
 - 60 ton surge hopper
- 3-Deck Screening Units [240 TPH]
- Roll Crushing Unit [240 TPH]
- 1,500 Ton Reject Coal Storage Pile with 3-sided enclosure and side curtains (dust control)
- (5) Elevated Coal Storage/Truck Loadout Silos [60 ton]
 - Engineered Silo Load-in Chutes
 - Oiling System
- 10,000 Gallon Fixed Roof Oil Storage Tank and associated liquid transfer system
- Associated belt conveyor handling equipment (feed conveyors, stackers, belt scales).

B. Source Description

The proposed coal processing facility will process crushed coal from the Spring Creek Mine to produce sized coal products for sale and distribution via over the road trucks. Raw coal will be delivered by way of side-dump trucks and discharged into the partially enclosed truck dump, equipped with a sloped grizzly screen to separate oversize products ($\geq 8''$). Sub-eight inch coal will be received into the feed hopper while larger coal will be deposited on the backside of the truck dump to be sold as lump coal.

Coal entering the hopper is delivered to the screening plant via a variable –speed feeder for separation. Coal greater than 1.5 inch is sent to the crusher for reduction and then sent back to the screening plant for sizing. Stocker (-1.5" x 0.25") and pea (-1.5" x 1") size coals are conveyed to the storage/truck loadout silos, while coal fines (-0.25") are conveyed to the ground-level fines stockpile.

Coals entering the elevated silos receive a coating of oil from an integrated oiling system. Motor oils of various weights and/or bunker "C" oil will be applied at an approximate rate of 2 gallons per ton of coal. Coal fines sent to the reject coal storage pile will be periodically loaded into trucks via front loader and transported off-site.

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 Montana Department of Environmental Quality (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 section 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).

WMC shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Testing 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 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in 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 the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
3. ARM 17.8.221 Ambient Air Quality Standard for Visibility
4. ARM 17.8.223 Ambient Air Quality Standards for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (PM₁₀)

WMC 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 an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 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 are taken to control emissions of airborne particulate. (2) Under this section, WMC 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 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). WMC, as defined and applied in 40 CFR Part 60, shall comply with the NSPS.
 - a. 40 CFR Part 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR Part 60, Subpart Y – Standards of Performance for Coal Preparation Plants and Processing Plants. Process operations at this facility that meet the definition of affected facilities include any coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems.
 6. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Western Energy shall comply with the requirements of 40 CFR Part 63, as applicable.
- 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 rule 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. WMC submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. 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; and 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 pro-rate 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 person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year (tpy) of any pollutant. WMC has PTE greater than 25 tpy of PM; 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 do not require a permit under 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. WMC 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. WMC submitted an affidavit of publication of public notice for the August 28, 2013, issue of the *Sheridan Pass*, a newspaper of general circulation in the City of Sheridan, Wyoming, 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, which is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included 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 WMC 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 Permit 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 modified 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 chapter.

2. ARM 17.8.818 Review of Major Stationary Source 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 FCAA that it would emit, except as this chapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and does not have the PTE more than 250 tpy or more of any air pollutant from point sources of emissions.

- 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 tpy of any pollutant;
 - b. PTE > 10 tpy of any single hazardous air pollutant (HAP), PTE > 25 tpy of a combined HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tpy of PM₁₀ in a serious PM₁₀ non-attainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. 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 MAQP #4962-00 for WMC, the following conclusions were made:
 - a. The facility's PTE is less than 100 tpy for all criteria pollutants.
 - b. The facility's PTE is less than 10 tpy of any single HAP and less than 25 tpy of all HAPs.
 - c. This source is not located in a serious PM₁₀ non-attainment area.
 - d. This facility is subject to a current NSPS (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 or a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that WMC would be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or modified source. WMC shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was review in connection with MAQP application #4962-00, providing an analysis of available methods for controlling emissions from the proposed sources. Emissions from the facility will be limited to fugitive PM generated from coal handling and processing, and associated haul road emissions. The Department reviewed the analysis and methods presented, as well as previous BACT determinations to formulate a BACT conclusion. The following control options have been selected as constituting BACT for each identified emission source;

A. Truck Dump

BACT consideration for the truck dump provided for the installation of a three-sided stilling shed, equipped with staggered curtains hung within the enclosure to dampen air movement within the shed. Due to the limited amount of emission generated from this process the use of mechanical ventilation with a capture and control device, such as a baghouse or cyclonic scrubber, would provide a high cost to control ratio and therefore be rendered economically infeasible. Application of a stilling shed provides for an estimated emission reduction of 50% to 75% depending on the wind direction.

Coal processed at WMC is received directly from the Spring Creek Coal mine which actively employs a chemical dust suppressant network throughout the mine to control fugitive dust; therefore the coal as received at the WMC facility possess intrinsic dust control characteristics. The Department determined that the installation of a stilling shed enclosure and dampener curtains for the truck dump constitutes BACT for the WMC operation.

B. Crushing and Screen Units

WMC proposed the installation of the crusher and screen unit(s) within a building enclosure. Enclosing the coal screen(s), crusher, and associated conveyors, serves to isolate these activities from any wind disturbance which could mobilize dust generated during processing or transfer activities. The effectiveness of enclosure is difficult to quantify, however Department policy provides for a control efficiency of 90%. Therefore, the Department determined that the installation of the coal processing and handling activities within a building enclosure constitutes BACT.

C. Conveyor Transfers

For transfers outside of the building enclosure, dust control mechanisms will be limited to the application engineered chutes at each transfer point to limit the generation of PM emissions. Specifically engineered chutes have been demonstrated to reduce fugitive dust generation by as much as 60%. Chutes act to reduce the fall and impact velocity of the transfer material and to minimize friction between particles during transfer. In the case of WMC the cost of additional controls on would not be economically feasible. In addition, use of engineered chutes is consistent with BACT determination for similar sources and has proven to provide a sufficient degree of PM control.

In addition to the above mentioned controls, WMC is subject to the provisions of 40 CFR 60, Subpart Y, which regulates emissions from coal preparation and processing facility. Affected equipment under Subpart Y shall not generate visible emissions to the atmosphere which exhibit an opacity of 10% or greater. The demonstration of compliance to the requirements of Subpart Y and utilization of engineered chutes constitute BACT in this permit action.

D. Storage Silos and Truck Loadout

The storage silo will be equipped with an integrated oil application system to minimize emissions from gravity load out operations into to haul trucks and to provide a degree of particulate control for over the road transportation. Additionally, the storage and loadout activities are subject to the visible emission requirements of 40 CFR 60, Subpart Y. The demonstration of compliance to the requirements of Subpart Y and utilization of the proposed oil application system constitutes BACT in this permit action.

E. Files Storage Pile

WMC proposed the construction of a three-side enclosure for the coal fines storage pile to minimize PM emissions during pile forming. The construction of this type of enclosure for coal piles has demonstrated control efficiencies of 75% to 85%. Coal storage piles are also subject to the visible emission requirements of 40 CFR 60, Subpart Y.

The demonstration of compliance to the requirements of Subpart Y and the construction of a three-sided enclosure present BACT decisions similar to recently permitted sources and therefore constitutes BACT in this permit action.

F. Haul Roads and General Facility Area

Water and chemical dust suppressants are the standard method employed for control of fugitive emissions from industrial haul road and mobile material handling equipment, such as front loaders. Both methods of emissions controls are readily available and commonly used. Chemical dust suppressant alone could be used to control the fugitive emissions; however, as water is more readily available, is less expensive, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as BACT for fugitive particulate emissions. In addition, water suppression has been required of recently permitted similar sources. WMC may use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area.

According to ARM 17.8.308, WMC is required to take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. WMC is required to have water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. WMC may also use chemical dust suppression in order to maintain compliance with fugitive emission limitations in Section II.A of MAQP #4962-00. The Department determined that using water and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the fugitive emission sources.

IV. Emissions Inventory

Potential Emissions Summary [Tons/Year]						
Emission Source	Uncontrolled Emissions			Controlled Emissions ^(a)		
	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
Truck Dump	69.38	10.51	1.05	17.34	2.63	0.26
Coal Screen	26.280	9.145	0.915	2.63	0.91	0.091
Coal Crusher	21.02	6.31	0.63	2.10	0.63	0.063
Conveyor Transfer	5.86	2.77	0.42	5.86	2.77	0.42
Truck Loading - Silos	0.39	0.18	0.03	0.39	0.18	0.03
Truck Loading - Fines	42.05	5.26	0.53	10.51	1.31	0.13
Wind Erosion - Fines Storage Piles	0.13	0.06	0.01	0.03	0.02	0.002
Unpaved Roadways - Haul Trucks	20.02	5.52	0.55	10.01	2.76	0.28
Unpaved Roadways - Light/Med. Vehicles	0.83	0.23	0.02	0.41	0.11	0.01
TOTAL POINT SOURCE EMISSIONS ▶	185.13	39.76	4.13	48.88	11.22	1.27

<i>Emission Inventory Basis:</i>	
<i>(a) Control measures will qualify as limitations that reduce the facility's Potential to Emit if controls are operated and maintained continuously for reasons other than air quality protection.</i>	
Ce, control efficiency	PM, particulate matter
ft ³ , cubic feet	PM _{COND} , condensable particulate matter
Yd ³ , cubic yard	PM ₁₀ , particulate matter with an aerodynamic diameter of 10 microns or less
EF, emission factor	PM _{2.5} , particulate matter with an aerodynamic diameter of 2.5 microns or less
hr, hour	[Sum of condensable and filterable]
lbs, pounds	SCC, Source Classification Code
mph, miles per hour	TPH, tons per hour
PTE, Potential To Emit	TPY, tons per year
	VMT, vehicle miles travelled

Process Rate: 240 tons/hour [Design Capacity]
 2102400 tons/year [Applicant Data]
 Operating Hours: 8760 hours/year [Potential Maximum]

Fugitive Emission Sources

Truck Unloading [SCC 3-05-010-41]:

Process Rate: 240 tons/hour
 2102400 ton/year

Control Method: Partial enclosure with curtain

Control Efficiency: 75%

Particulate Emissions:

PM Emissions:

Emission Factor 0.066 lbs/ton [USEPA FIRE Clearinghouse - Truck Unloading, Bottom Dump]
 Calculations (0.066 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) = 69.38 tpy (uncontrolled)
 (69.38 tpy (uncontrolled)) * (1 - 0.75 Ce) = 17.34 tpy (controlled)

PM₁₀ Emissions:

Emission Factor 0.010 lbs/ton [USEPA FIRE Clearinghouse - Truck Unloading, Bottom Dump]
 Calculations (0.01 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) = 10.51 tpy (uncontrolled)
 (10.51 tpy (uncontrolled)) * (1 - 0.75 Ce) = 2.63 tpy (controlled)

PM_{2.5} Emissions:

Emission Factor	0.001000 lbs/ton	[PM _{2.5} = PM ₁₀ * 0.1 ► PM _{2.5} USEPA Multiplier*]	
Calculations	(0.001 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) =		1.05 tpy (uncontrolled)
	(1.05 tpy (uncontrolled)) * (1 - 0.75 Ce) =		0.26 tpy (controlled)

Coal Screening [SCC 3-03-003-12]

Process Rate: 240 tons/hour
2102400 ton/year

Control Method: Full Enclosure

Control Efficiency: 90% [DEQ Policy]

Particulate Emissions:

PM Emissions:

Emission Factor	0.025 lbs/ton	[AP-42 11.19.2, Table 11.19.2-2; 11/06]	
Calculations	(0.025 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) =		26.28 tpy (uncontrolled)
	(26.28 tpy (uncontrolled)) * (1 - 0.9 Ce) =		2.63 tpy (controlled)

PM₁₀ Emissions:

Emission Factor	0.009 lbs/ton	[AP-42 11.19.2, Table 11.19.2-2; 11/06]	
Calculations	(0.0087 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) =		9.15 tpy (uncontrolled)
	(9.15 tpy (uncontrolled)) * (1 - 0.9 Ce) =		0.91 tpy (controlled)

PM_{2.5} Emissions:

Emission Factor	0.0009 lbs/ton	[PM _{2.5} = PM ₁₀ * 0.1 ► PM _{2.5} USEPA Multiplier*]	
Calculations	(0.00087 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) =		0.91 tpy (uncontrolled)
	(0.91 tpy (uncontrolled)) * (1 - 0.9 Ce) =		0.09 tpy (controlled)

Coal Crushing [SCC 3-03-010-10]

Process Rate: 240 tons/hour
2102400 ton/year

Control Method: Full Enclosure

Control Efficiency: 90% [DEQ Policy]

Particulate Emissions:

PM Emissions:

Emission Factor	0.020 lbs/ton	[USEPA FIRE Clearinghouse - Coal Crushing]	
Calculations	(0.02 lbs/ton) * (0.9 tons/yr) * 0.0005 tons/lb) =		21.02 tpy (uncontrolled)
	(21.02 tpy (uncontrolled)) * (1 - 0.9 Ce) =		2.10 tpy (controlled)

PM₁₀ Emissions:

Emission Factor	0.006 lbs/ton	[USEPA FIRE Clearinghouse - Coal Crushing]	
Calculations	(0.006 lbs/ton) * (0.9 tons/yr) * 0.0005 tons/lb) =		6.31 tpy (uncontrolled)
	(6.31 tpy (uncontrolled)) * (1 - 0.9 Ce) =		0.63 tpy (controlled)

PM_{2.5} Emissions:

Emission Factor	0.0006 lbs/ton	[PM _{2.5} = PM ₁₀ * 0.1 ► PM _{2.5} USEPA Multiplier*]	
Calculations	(0.0006 lbs/ton) * (0.9 tons/yr) * 0.0005 tons/lb) =		0.63 tpy (uncontrolled)
	(0.63 tpy (uncontrolled)) * (1 - 0.9 Ce) =		0.06 tpy (controlled)

Coal Conveyor Transfers [SCC 3-03-010-10]

Process Rate: 240 tons/hour

2102400 ton/year

Transfers: 15 transfers [Application-Includes Silo Loading & Fines Pile Formation]
Control Method: Engineer Chutes
Control Efficiency: 60% [DEQ Policy]

Emission Factor $EF = k (0.0032) * [(U/5)^{1.3} / (M / 2)^{1.4}]$ [AP-42 13.2.4; 11/06]
where: EF, Emission Factor = lbs Emitted / ton Processed
k, Dimensionless Particle Size Multiplier PM = 0.74 [AP-42 13.2.4; 11/06]
k, Dimensionless Particle Size Multiplier PM₁₀ = 0.35 [AP-42 13.2.4; 11/06]
k, Dimensionless Particle Size Multiplier PM_{2.5} = 0.053 [AP-42 13.2.4; 11/06]
U, Mean Wind Speed (mph) = 7.1 [Spring Creek Mine-MET Data]
M, Material Moisture Content (%) = 10.40 [AP-42 11.9 -Table 11.9-3; 07/98]

PM Emissions:

Emission Factor $EF = 0.74 * (0.0032) * [(7.1/5)^{1.3} / (10.4/ 2)^{1.4}] =$ 0.00037 lbs/ton
Calculations $(0.0004 \text{ lbs/ton}) * (2102400 \text{ tons/yr}) * (15 \text{ transfers}) =$ 5.86 tpy (uncontrolled)

PM₁₀ Emissions:

Emission Factor $EF = 0.35 * (0.0032) * [(7.1/5)^{1.3} / (10.4/ 2)^{1.4}] =$ 0.0002 lbs/ton
Calculations $(0.0002 \text{ lbs/ton}) * (2102400 \text{ tons/yr}) * (15 \text{ transfers}) =$ 2.77 tpy (uncontrolled)

PM_{2.5} Emissions:

Emission Factor $EF = 0.053 * (0.0032) * [(7.1/5)^{1.3} / (10.4/ 2)^{1.4}] =$ 0.00003 lbs/ton
Calculations $(0.0000 \text{ lbs/ton}) * (2102400 \text{ tons/yr}) * (15 \text{ transfers}) =$ 0.42 tpy (uncontrolled)

Truck Loading - Silos [SCC 3-05-010-23]

Process Rate: 240 tons/hr [Applicant Data]
2102400 tons/year [Applicant Data]
Pile Transfers: 1 transfer [Silo → Truck]
Control Method: Oil Application [Ce Not Applied]

Particulate Emissions (uncontrolled):

Emission Factor $EF = k (0.0032) * [(U/5)^{1.3} / (M / 2)^{1.4}]$ [AP-42 13.2.4; 11/06]
where: EF, Emission Factor = lbs Emitted / ton Processed
k, Dimensionless Particle Size Multiplier PM = 0.74 [AP-42 13.2.4; 11/06]
k, Dimensionless Particle Size Multiplier PM₁₀ = 0.35 [AP-42 13.2.4; 11/06]
k, Dimensionless Particle Size Multiplier PM_{2.5} = 0.053 [AP-42 13.2.4; 11/06]
U, Mean Wind Speed (mph) = 7.1 [Spring Creek Mine-MET Data]
M, Material Moisture Content (%) = 10.40 [AP-42 11.9 -Table 11.9-3; 07/98]

PM Emissions:

Emission Factor $EF = 0.74 * (0.0032) * [(7.1/5)^{1.3} / (10.4/ 2)^{1.4}] =$ 0.00037 lbs/ton
Calculations $(0.0004 \text{ lbs/ton}) * (2102400 \text{ tons/yr}) * (1 \text{ transfer}) =$ 0.39 tpy (uncontrolled)

PM₁₀ Emissions:

Emission Factor $EF = 0.35 * (0.0032) * [(7.1/5)^{1.3} / (10.4/ 2)^{1.4}] =$ 0.0002 lbs/ton
Calculations $(0.0002 \text{ lbs/ton}) * (2102400 \text{ tons/yr}) * (1 \text{ transfer}) =$ 0.18 tpy (uncontrolled)

PM_{2.5} Emissions:

Emission Factor EF = 0.053 * (0.0032) * [(7.1/5)^1.3 / (10.4/ 2)^1.4] = 0.00003 lbs/ton
Calculations (0.0000 lbs/ton) * (2102400 tons/yr) * (1 transfer) = 0.03 tpy (uncontrolled)

Truck Loading - Fines [SCC 3-05-010-38]

Process Rate: 240 tons/hour
2102400 ton/year
Control Method: Oil Application
Control Efficiency: 75% [DEQ Policy]

Particulate Emissions:

PM Emissions:

Emission Factor 0.040 lbs/ton [USEPA FIRE Clearinghouse - Truck Loading]
Calculations (0.04 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) = 42.05 tpy (uncontrolled)
(42.05 tpy (uncontrolled)) * (1 - 0.75 Ce) = 10.51 tpy (controlled)

PM₁₀ Emissions:

Emission Factor 0.005 lbs/ton [USEPA FIRE Clearinghouse - Truck Loading]
Calculations (0.005 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) = 5.26 tpy (uncontrolled)
(5.26 tpy (uncontrolled)) * (1 - 0.75 Ce) = 1.31 tpy (controlled)

PM_{2.5} Emissions:

Emission Factor 0.0005 lbs/ton [PM_{2.5} = PM₁₀ * 0.1 ► PM_{2.5} USEPA Multiplier*]
Calculations (0.0005 lbs/ton) * (2102400 tons/yr) * 0.0005 tons/lb) = 0.53 tpy (uncontrolled)
(0.53 tpy (uncontrolled)) * (1 - 0.75 Ce) = 0.13 tpy (controlled)

Wind Erosion - Fines Storage Piles [SCC 3-05-010-49]:

Storage Pile Data:
Total Storage Pile Area 0.33 Acres
Control Method: Partial Enclosure
Control Efficiency (Ce): 75% [MT DEQ Policy]

Particulate Emissions:

PM Emissions:

Emission Factor 760 lbs/acre-yr
Calculations (760 lbs/acre-yr) * (0.33 Acres) * (0.0005 tons/lb) = 0.13 tpy (uncontrolled)
(0.1254 tpy) * (1 - 0.75 Ce) = 0.03 tpy (controlled)

PM₁₀ Emissions:

Emission Factor 380 lbs/acre-yr
Calculations (380 lbs/acre-yr) * (0.33 Acres) * (0.0005 tons/lb) = 0.06 tpy (uncontrolled)
(0.0627 tpy) * (1 - 0.75 Ce) = 0.02 tpy (controlled)

PM_{2.5} Emissions:

Emission Factor 38 lbs/acre-yr
Calculations (38 lbs/acre-yr) * (0.33 Acres) * (0.0005 tons/lb) = 0.01 tpy (uncontrolled)
(0.00627 tpy) * (1 - 0.75 Ce) = 0.002 tpy (controlled)

Unpaved Roadways (Light/Medium Vehicles) [SCC 3-05-020-90]

Miles Travelled: 5591 Miles/Day [Applicant Estimate]
 Vehicle Weight: 35 Tons [Mean Vehicle Weight Empty/Full]
 Control Method: Water Application (reasonable Precautions)
 Control Efficiency (C_e): 50% [MT DEQ Policy]

Particulate Emissions (controlled):

Emission Factor $EF = k(s/12)^a * (W/3)^b * ((365 - p)/365)$ [AP-42 13.2.2.2; 11/06]
 where: EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)
 k, Empirical Constant PM = 4.9 [AP-42 Table 13.2.2-2; 11/06]
 k, Empirical Constant PM₁₀ = 1.5 [AP-42 Table 13.2.2-2; 11/06]
 k, Empirical Constant PM_{2.5} = 0.15 [AP-42 Table 13.2.2-2; 11/06]
 s, Surface Material Silt Content (%) = 7.1 [AP-42 Table 13.2.2-1; 11/06]
 W, Mean Vehicle Weight (tons) = 35 [Applicant Provided Data]
 a, Empirical Constant PM = 0.7 [AP-42 Table 13.2.2-2; 11/06]
 a, Empirical Constant PM₁₀/PM_{2.5} = 0.9 [AP-42 Table 13.2.2-2; 11/06]
 b, Empirical Constant PM - PM_{2.5} = 0.45 [AP-42 Table 13.2.2-2; 11/06]
 p, Days of precipitation (<0.01") = 110 [AP-42 Table 13.2.2-2; 11/06]

PM Emissions:

Emission Factor $EF = 4.9 * (7.1/12)^{0.7} * (35/3)^{0.45} * ((365 - 110)/365) = 7.16$ lbs/VMT
 Calculations $(7.16 \text{ lbs/VMT}) * (5591 \text{ miles/yr}) * (0.0005 \text{ tons/lb}) = 20.02$ tpy (uncontrolled)
 $(20.02 \text{ tpy}) * (1 - 0.5 C_e) = 10.01$ tpy (controlled)

PM₁₀ Emissions:

Emission Factor $EF = 1.5 * (7.1/12)^{0.9} * (35/3)^{0.45} * ((365 - 110)/365) = 1.97$ lbs/VMT
 Calculations $(1.97 \text{ lbs/VMT}) * (5591 \text{ miles/yr}) * (0.0005 \text{ tons/lb}) = 5.52$ tpy (uncontrolled)
 $(5.52 \text{ tpy}) * (1 - 0.5 C_e) = 2.76$ tpy (controlled)

PM_{2.5} Emissions:

Emission Factor $EF = 0.15 * (7.1/12)^{0.9} * (35/3)^{0.45} = 0.20$ lbs/VMT
 Calculations $(0.20 \text{ lbs/VMT}) * (5591 \text{ miles/yr}) * (0.0005 \text{ tons/lb}) = 0.55$ tpy (uncontrolled)
 $(0.55 \text{ tpy}) * (1 - 0.5 C_e) = 0.28$ tpy (controlled)

Unpaved Roadways (Light Duty Vehicles) [SCC 3-05-020-90]

Miles Travelled: 650 Miles/Day [Applicant Estimate]
 Vehicle Weight: 3.5 Tons [Mean Vehicle Weight Empty/Full]
 Control Method: Water Application (reasonable Precautions)
 Control Efficiency (C_e): 50% [MT DEQ Policy]

Particulate Emissions (controlled):

Emission Factor $EF = k(s/12)^a * (W/3)^b * ((365 - p)/365)$ [AP-42 13.2.2.2; 11/06]
 where: EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)
 k, Empirical Constant PM = 4.9 [AP-42 Table 13.2.2-2; 11/06]
 k, Empirical Constant PM₁₀ = 1.5 [AP-42 Table 13.2.2-2; 11/06]
 k, Empirical Constant PM_{2.5} = 0.15 [AP-42 Table 13.2.2-2; 11/06]
 s, Surface Material Silt Content (%) = 7.1 [AP-42 Table 13.2.2-1; 11/06]
 W, Mean Vehicle Weight (tons) = 3.5 [Applicant Provided Data]
 a, Empirical Constant PM = 0.7 [AP-42 Table 13.2.2-2; 11/06]
 a, Empirical Constant PM₁₀/PM_{2.5} = 0.9 [AP-42 Table 13.2.2-2; 11/06]

b, Empirical Constant PM - PM_{2.5} = 0.45 [AP-42 Table 13.2.2-2; 11/06]
 p, Days of precipitation (<0.01") = 110 [AP-42 Table 13.2.2-2; 11/06]

PM Emissions:

Emission Factor EF = 4.9 * (7.1/12)^{0.7} * (35/3)^{0.45} * ((365 - 110)/365) = 2.54 lbs/VMT
 Calculations (2.54 lbs/VMT) * (650 miles/yr) * (0.0005 tons/lb) = 0.83 tpy (uncontrolled)
 (0.83 tpy) * (1 - 0.5 Ce) = 0.41 tpy (controlled)

PM₁₀ Emissions:

Emission Factor EF = 1.5 * (7.1/12)^{0.9} * (35/3)^{0.45} * ((365 - 110)/365) = 0.70 lbs/VMT
 Calculations (0.70 lbs/VMT) * (650 miles/yr) * (0.0005 tons/lb) = 0.23 tpy (uncontrolled)
 (0.23 tpy) * (1 - 0.5 Ce) = 0.11 tpy (controlled)

PM_{2.5} Emissions:

Emission Factor EF = 0.15 * (7.1/12)^{0.9} * (35/3)^{0.45} * ((365 - 110)/365) = 0.07 lbs/VMT
 Calculations (0.07 lbs/VMT) * (650 miles/yr) * (0.0005 tons/lb) = 0.02 tpy (uncontrolled)
 (0.02 tpy) * (1 - 0.5 Ce) = 0.01 tpy (controlled)

V. Existing Air Quality

WMC's proposed stocker coal processing facility is to be located in the Northwest ¼ of Section 18, Township 8 South, Range 40 East in Big Horn County. The air quality of this area is classified as unclassifiable/attainment for National Ambient Air Quality Standards (NAAQS) pollutants, including particulate matter (PM₁₀/PM_{2.5}).

VI. Ambient Air Impact

In the view of the Department, the amount of controlled emissions generated by this project will not cause concentrations of any regulated pollutant in the ambient air that exceed any set ambient standard. Any potential impacts will be minimized by the conditions and limitations established in MAQP #4962-00.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
✓		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	✓	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	✓	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	✓	4. Does the action deprive the owner of all economically viable uses of the property?
	✓	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	✓	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	✓	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?

YES	NO	
	✓	7a. Is the impact of government action direct, peculiar, and significant?
	✓	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	✓	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	✓	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

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

Permit Analysis Prepared By: D. Kuenzli
Date: December 14, 2013

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Wolf Mountain Coal, Inc.
P.O. Box 6206
Sheridan, WY 82801

Montana Air Quality Permit (MAQP) Number: 4962-00

Preliminary Determination Issued: 12/23/2013

Department Decision Issued: 01/09/2014

Permit Final: 01/25/2014

1. *Legal Description of Site:* The proposed facility is to be located approximately 7 miles north of Decker, Montana and adjacent to the Spring Creek Mine. The legal site location description of this facility is the Northwest ¼ of Section 18, Township 8 South, Range 40 East in Big Horn County.
2. *Description of Project:* The Department received a permit application from Wolf Mountain Coal, Inc. (WMC) for proposed installation and operation of a stoker coal processing and truck loadout facility. WMC will receive lump coal from the adjacent Spring Creek Coal operation for processing into stocker coal.
3. *Objectives of Project:* The object of the project would be to produce business and revenue for the company through the sale and distribution stocker coal products. The issuance of MAQP #4962-00 would allow WMC to operate the permitted equipment at various locations throughout Montana (as described above), including the proposed initial site location.
4. *Alternatives Considered:* In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because WMC 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 MAQP #4962-00.
6. *Regulatory Effects on Private Property:* 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			✓			Yes
B	Water Quality, Quantity, and Distribution			✓			Yes
C	Geology and Soil Quality, Stability and Moisture			✓			Yes
D	Vegetation Cover, Quantity, and Quality			✓			Yes
E	Aesthetics			✓			Yes
F	Air Quality			✓			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			✓			Yes
H	Demands on Environmental Resource of Water, Air and Energy			✓			Yes
I	Historical and Archaeological Sites				✓		Yes
J	Cumulative and Secondary Impacts			✓			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

This permitting action would be expected to have a minor effect on terrestrial and aquatic life and habitats, as the proposed plant would operate within and around an existing industrial area. Furthermore, the air emissions would likely have only minor effects on terrestrial and aquatic life because facility will generate minor emissions and would be well dispersed in the area of the operations (see Section 7.F of this EA). Furthermore operations would likely be intermittent and seasonal, operating only during the heating season. Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the proposed project.

B. Water Quality, Quantity, and Distribution

Water would be required for dust suppression on haul roads and surrounding facility area. This water use would be expected to only cause minor, if any, impacts to water resources because the facility is small and only a small volume of water would be required to be used. In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F. of this EA. The Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #4962-00, any impacts from deposition of pollutants on water quality, quantity, and distribution from the project would expect to be minor.

C. Geology and Soil Quality, Stability, and Moisture

Only minor impacts from deposition of air pollutants on soils would likely result (as described in Section 7.F of this EA) and only minor amounts of water would be used for pollution control, and only as necessary, in controlling particulate emissions. Thus, only minimal water runoff would likely occur. Since only minor amounts of pollution would be expected and corresponding emissions would be widely dispersed before settling upon surrounding soils and vegetation (as described in Section 7.D of this EA), impacts would be minor. Therefore, any effects upon geology and soil quality, stability, and moisture from air pollutant emissions from equipment operations would likely be minor and short-lived.

D. Vegetation Cover, Quantity, and Quality

Only minor impacts would be expected to occur with respect to vegetative cover, quality, and quantity because the facility would operate in an area where vegetation has been previously disturbed. During operations, the facility would likely be a relatively minor source of emissions and the pollutants widely dispersed (as described in Section 7.F of this EA); therefore, deposition on vegetation from the proposed project would expect to be minor. Also, due to limited water usage (as described in Section 7.B of this EA) and minimal associated soil disturbance from the application of water and water runoff (as described in Section 7.C of this EA), corresponding vegetative impacts would likely be minor.

E. Aesthetics

The facility would be visible and would create noise while operating the proposed equipment at the site. However, activity will occur within an existing industrial area. Further, MAQP #4962-00 would include conditions to control emissions, including visible emissions, from the plant. The facility will likely operate on an intermittent and seasonal basis, and would be a small industrial source. Therefore, any visual aesthetic impacts would be short-lived and are expected to be minor.

F. Air Quality

Air quality impacts from the proposed project has been determined to be minor because the facility would be relatively small and operate on an intermittent and temporary basis. MAQP #4962-00 includes conditions limiting the facility's opacity; require water and water spray bars be available on site and used to ensure compliance with opacity standards; and limit the facility's production.

Further, the Department determined that this facility would be a minor source of emissions as the source's potential to emit is limited to below the major source threshold level of 100 tons per year (tpy) for any pollutant. Pollutant deposition from the facility would expect to be minimal because the pollutants emitted are widely dispersed (from factors such as wind speed and wind direction) and exhibit minimal deposition on the surrounding area. Therefore, air quality impacts from operating the facility would be expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operation (Northwest ¼ of Section 18, Township 8 South, Range 40 East in Big Horn County), contacted the Natural Resource Information System – Montana Natural Heritage Program. Search results concluded there is a single species of concern within the area. The search area, in this case, is defined by the section, township, and range of the proposed site, with an additional one (1) mile buffer. Species identified was the Ferruginous Hawk (Sensitive) and the Greater Sage-Grouse (Sensitive).

While this species may be found within the search area, the impact, specific effects from operation of the facility in this area would be minor since the facility is relatively small in size and located within an industrial area. In addition the source will have only seasonal and intermittent operations in the area. Therefore, the Department determined that any effects upon these species would likely be minor and short-lived.

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

Due to the relatively small size of the project, only small demands on environmental resources would likely be required for proper operation. Only small quantities of water are required for dust suppression of particulate emissions being generated at the site. In addition, impacts to air resources would be expected to be minor because the source would be considered a minor industrial source of emissions, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed as described in Section 7.F of this EA. Energy requirements would also be small, as the diesel engines would use small amounts of fuel. Overall, any impacts to water, air, and energy resources would likely be minor.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the location of the facility. According to correspondence from the Montana State Historic Preservation Office, no previously recorded sites within the designated search areas. As this plant will be constructed within an existing industrial area there is low likelihood of disturbance to any known archaeological or historic site given previous industrial disturbance in the area. Therefore, it is unlikely that the operation would have an effect on any known historic or archaeological sites.

J. Cumulative and Secondary Impacts

The coal processing facility and associated equipment would likely cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would be limited in the amount of emissions allowed to be released to the atmosphere. Emissions and noise generated from the equipment would likely result in only minor impacts to the area, as the facility would be seasonal and temporary. The proposed project would be short-term in nature, and likely have minor cumulative effects upon resources within the area. These resources include water, terrestrial and aquatic life, soils, and vegetation. Overall, cumulative and secondary impacts to the physical and biological aspects of the human environment would likely be minor.

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				✓		Yes
B	Cultural Uniqueness and Diversity				✓		Yes
C	Local and State Tax Base and Tax Revenue			✓			Yes
D	Agricultural or Industrial Production			✓			Yes
E	Human Health			✓			Yes
F	Access to and Quality of Recreational and Wilderness Activities				✓		Yes
G	Quantity and Distribution of Employment				✓		Yes
H	Distribution of Population				✓		Yes
I	Demands for Government Services			✓			Yes
J	Industrial and Commercial Activity			✓			Yes
K	Locally Adopted Environmental Plans and Goals			✓			Yes
L	Cumulative and Secondary Impacts			✓			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The operation of the stocker coal processing facility would not expect to cause any disruption to the social structures and mores in the area because the source would be a minor industrial source located within an existing industrial area that would only have temporary and intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #4962-00, which would limit the effects to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not likely be impacted by the operation of the proposed facility because the source would occur within an existing industrial area and would be intermittent and temporary operation. Therefore, there would not be any impacts expected to the cultural uniqueness and diversity of this.

C. Local and State Tax Base and Tax Revenue

The operation of the facility would likely have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source of emissions and would have seasonal and intermittent operations. WMC indicated that three to five employees are required to operate this facility. Thus, only minor impacts to the local and state tax base and revenue would be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would expect to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The operation mineral processing facility would have only a minor impact on local industrial production since the facility would be a minor source of air emissions. Because minimal deposition of air pollutants would occur on the surrounding land (as described in Section 7.F of this EA), only minor and temporary effects on the surrounding vegetation (i.e. agricultural production) would occur. In addition, the facility operations would be small and temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation, as described in Section 7.D of this EA.

E. Human Health

MAQP #4962-00 would incorporate conditions to ensure that the facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other operational limits that would be required by MAQP #4962-00. Also, the facility would be operating on a temporary basis and pollutants would disperse from the ventilation of emissions at this site (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed project.

F. Access to and Quality of Recreational and Wilderness Activities

Based on information received from WMC, no recreational activities or wilderness areas are near the proposed project site. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

The operation of the WMC plant will require two employees and employment will occur only seasonally and intermittent. No individuals would be expected to permanently relocate to this area of operation as a result of expanded facility operations. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

The operation is a portable industrial facility that would only require a limited number of employees. No individuals would be expected to permanently relocate to this area as a result of this expansion. Therefore, the mineral processing facility would not likely impact the normal population distribution in the initial area of operation or any future operating site.

I. Demands of Government Services

No significant increase in traffic on existing roadways is expected from this expansion. Government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be expected to be minor.

J. Industrial and Commercial Activity

The operation of the new equipment would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Furthermore, the industrial

activity associated with this plant will occur within an existing developed location. Therefore, only limited additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

WMC would be allowed, by MAQP #4962-00, to operate in areas designated by the United States Environmental Protection Agency as attainment or unclassified for ambient air quality. The Department is not aware of any locally adopted environmental plans and goal within this area. Because the proposed equipment would be a portable source with only minor emissions, any impacts to any locally adopted environmental plans from the project would be expected to be minor and temporary.

L. Cumulative and Secondary Impacts

The operation of the facility would cause only minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by WMC, but any cumulative impacts upon the social and economic aspects of the human environment would likely be minor and short-lived. Thus, only minor and temporary cumulative effects would be expected to the local economy.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the operation of a stocker coal processing facility; MAQP #4962-00 provides conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

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