

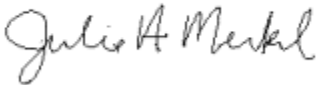
June 19, 2019

Westmoreland Rosebud Mining LLC
P.O. Box 99
Colstrip, MT 59323

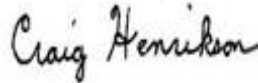
Dear Ms. Peterson:

Montana Air Quality Permit #1570-09 is deemed final as of June 19, 2019, by the Department of Environmental Quality (Department). 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 A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626



Craig Henrikson P.E.
Environmental Engineer
Air Quality Bureau
(406) 444-6711

JM:CH
Enclosure



Montana Department of Environmental Quality
Air, Energy & Mining Division

Montana Air Quality Permit #1570-09

Westmoreland Rosebud Mining LLC 100 Highway 518
P.O. Box 99
Colstrip, MT 59323

June 19, 2019



MONTANA AIR QUALITY PERMIT

Issued to: Westmoreland Rosebud Mining LLC
P.O. Box 99
Colstrip, MT 59323

Permit #1570-09
Administrative Amendment (AA)
Received: 4/24/2019
Department Decision on AA: 6/3/2019
Permit Final: 6/19/2019

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Westmoreland Rosebud Mining LLC (Westmoreland), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740 *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Westmoreland operates a surface coal mine and extraction facility located in Area C and Area F of the Rosebud Mine. Area C is located west of Colstrip in Sections 1-3 of Township 1 North, Range 39 East; Sections 34-36 of Township 2 North, Range 39 East; Sections 1-6, 8-12, and 13-17 of Township 1 North, Range 40 East; and Sections 28, 29, and 31-33 of Township 2 North, Range 40 East in Rosebud County. Area F is located in Sections 19, 20, 28, 29, 30, 31, 32, 33, 34 Township 2 North, Range 39 East and Sections 3, 4, 5 in Township 1 North, Range 39 East in Rosebud County, and Sections 12, 13, 14, 23, 24, 25 Township 2 North Range 38 East in Treasure County.

The list of permitted equipment can be found in Section I of the permit analysis.

B. Current Permit Action

On April 24, 2019, the Department received a request from Westmoreland to administratively open their current MAQP to transfer ownership of the permit from Western Energy Company to Westmoreland Rosebud Mining LLC. This was a result of the bankruptcy which transferred ownership from Western Energy Company to the subsidiary Westmoreland Rosebud Mining LLC owned by the larger Westmoreland Mining Holdings, LLC.

Section II: Conditions and Limitations

A. Emissions Limitations

1. The Area C primary crushers and coal handling facility, including the negative pressure system on the truck dump, shall be vented to and particulate matter controlled by a baghouse(s) (ARM.17.8.752).
2. A foam dust suppression system shall be installed and operated on the secondary crushers and each of three transfer points on the overland conveyor to control particulate matter emissions (ARM 17.8.752).

3. Westmoreland shall not cause visible emissions of greater than 20% opacity to be discharged into the atmosphere from any coal handling, conveying, crushing, processing, storing or loading system averaged over 6 consecutive minutes (ARM 17.8.308, ARM 17.8.304, 340 and 40 CFR Part 60, Subpart Y).
4. Westmoreland 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).
5. Westmoreland shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppression as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.749).
6. The following control measures shall be applied on an as necessary basis (ARM 17.8.752, ARM 17.8.749 and ARM 17.8.308):
 - a. Chemically stabilize and maintain all active haul and access roads and supplement by watering;
 - b. Apply water to temporary roads such as scraper travel areas;
 - c. Adequately maintain open coal storage and minimize equipment activity on stockpiles;
 - d. Minimize fall/drop distance on all coal and overburden handling activities;
 - e. Minimize area of surface disturbance;
 - f. Promptly revegetate exposed/disturbed areas, including temporary vegetative cover of topsoil stockpiles;
 - g. Minimize emissions from coal and overburden drilling through the use of dust curtains, water sprays, dust collectors, or other appropriate techniques;
 - h. Conduct blasting operations in such a manner as to minimize emissions, prevent overshooting, provide stemming of holes, and minimize area to be blasted;
 - i. Extinguish areas of burning or smoldering coal;
 - j. Restrict and maintain vehicle speeds on haul roads as necessary to minimize emissions; and,
 - k. Other control practices which may be determined by the Department to be necessary.

7. Westmoreland shall maintain a fugitive dust control plan. Elements of the plan shall include, but not be limited to, the conditions established within Section II.A.1 through II.A.5 (ARM 17.8.749 and 752).
8. Combined annual coal production from Areas C and F shall be limited to 8,000,000 tons per year (ARM 17.8.749).
9. Westmoreland shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 Code of Federal Regulations (CFR), Subpart Y, Standards of Performance for Coal Preparation Plants and Processing Plants (ARM 17.8.340 and 40 CFR 60, Subpart Y).
10. Annual coal production from Area F shall be limited to 4,000,000 tons per year (ARM 17.8.749).

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 Department may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Westmoreland 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 and sources identified in Section I of 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. The information shall include the following and 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). Westmoreland shall submit the following information annually to the Department by March 1, of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

2. Westmoreland 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 emission 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. 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 Westmoreland 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).

D. Notification

Westmoreland shall provide the Department with written notification of the actual date upon which mining operations commence in the Area F expansion. The notice shall be postmarked or hand-delivered no later than 15 days after the actual operational commencement date of the Area F expansion (ARM 17.8.749).

E. Ambient Monitoring

1. Particulate matter within an aerodynamic diameter of ten microns or less (PM₁₀) data has been collected at the Westmoreland mine since 1992. During the 1992-2000 period, the annual means at all sites were less than 28% of the annual standard. For the 24-hour PM₁₀ concentrations, all of the annual, maximum 24-hour values were less than 53% of the 24-hour standard. Therefore, in accordance with the October 9, 1998, monitoring guidance statement developed by the Department, Westmoreland may discontinue operation of their ambient air-monitoring network.
2. The Department may require Westmoreland to conduct additional ambient air monitoring, if necessary (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – Westmoreland 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 Systems CEMS, Continuous Emission Rate Monitoring Systems (CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Westmoreland fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Westmoreland 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 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 Department personnel at the location of the permitted source.
- G. Permit Fees – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Westmoreland may be grounds for revocation of this permit, as required by that section and rules adopted there under 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
Westmoreland Rosebud Mining LLC - Rosebud Mine
MAQP #1570-09

I. Introduction/Process Description

A. Permitted Equipment

Westmoreland Rosebud Mining LLC (Westmoreland) operates the following equipment at Area C and Area F of the Rosebud Mine.

1. “Coal handling facilities” include, but are not limited to:
 - a. Truck dump with two 500-ton capacity dump hoppers.
 - b. Two primary crushers with capacities of 1650 ton/hr each.
 - c. Two secondary crushers with capacities of 1650 ton/hr each.
 - d. One overland conveyor with a capacity of 1650 ton/hr, approximately 5 miles in length. This conveyor transports coal from the Area C preparation facility to the Colstrip power plants, Units 3 and 4. The conveyor and transfer points are fully enclosed and utilize a foam dust suppression system (FDSS) for the control of particulate matter.

NOTE: Only one dump hopper, primary crusher and secondary crusher will operate at a time, with the other being a redundant system. The primary crushers and initial conveyors at the preparation facility are fully enclosed and vented to a central baghouse. The truck dump is equipped with a negative pressure system vented to the central baghouse.

2. Necessary auxiliaries include, but are not limited to: draglines, coal shovels, trucks, front-end loaders, graders, scrapers, dozers, other mobile units, auxiliary facilities, etc., as applicable.

B. Source Description

Westmoreland operates a surface coal extraction facility and mine located in Area C and Area F of the Rosebud Mine. Area C is located west of Colstrip in Sections 1-3 of Township 1 North, Range 39 East; Sections 34-36 of Township 2 North, Range 39 East; Sections 1-6, 8-12, and 13-17 of Township 1 North, Range 40 East; and Sections 28, 29, and 31-33 of Township 2 North, Range 40 East of Rosebud County. Area F is located immediately west of Area C in Sections 19, 20, 28, 29, 30, 31, 32, 33, 34 Township 2 North, Range 39 East and Sections 3, 4, 5 in Township 1 North, Range 39 East in Rosebud County, and Sections 12, 13, 14, 23, 24, 25 Township 2 North Range 38 East in Treasure County. The Record of Decision published on April 18, 2019, excluded mine passes in Section 12 Township 2 North Range 38 East in Treasure County due to unknown water impacts. If in the future, concerns about this area covered by the exception

are adequately addressed and approved by DEQ, the air quality permit would also allow disturbances within this area.

Areas C and F have a combined maximum annual production limit of 8,000,000 tons of coal per year. Annual coal production from Area F is limited to 4,000,000 tons. All Coal extracted from Area F will be transported by haul truck to the Area C or Area A truck dump for further processing.

C. Permit History

MAQP #1570 was originally issued to Western Energy for Area C of the Rosebud Mine on August 2, 1982. The coal processing facilities, with emissions controlled by baghouses, included primary and secondary crushers and conveyors. Area C coal was used exclusively at the local power generating facilities known as Colstrip Units 3 and 4. An overland conveyor, with baghouse controls at each transfer point, transported coal 5 miles from Area C to the power plants. The original permit contained a coal production limit of 5.6 million tons per year. Overburden was stripped using standard dragline practices and shovel and truck removed coal. Other mine related activities included topsoil handling (primarily with scrapers), drilling and blasting of overburden and coal, vehicle traffic, and reclamation/farming activities.

MAQP #1570A was a modification issued on January 6, 1986. The permit action discontinued ambient air monitoring for meteorological parameters and settled particulate matter (a.k.a. dustfall). Total suspended particulate (TSP) monitoring was still required; however, five TSP sites were discontinued, five existing TSP sites continued to operate, and two new TSP sites were added. MAQP #1570A replaced MAQP #1570.

MAQP #1570B was a modification issued on December 22, 1988. The annual coal production limit was increased from 5.6 to 6.5 million tons per year. No changes were made to the coal mining methods or coal handling procedures. MAQP #1570B replaced MAQP #1570A.

MAQP #1570C was a modification issued on March 22, 1990, that dealt only with ambient air monitoring. A new particulate matter-monitoring site was required near Castle Rock Lake Drive. The description of monitoring sites #12 & #13 were revised to correct a transposition error from an earlier permitting action. Clarifying language was added that explained the Department of Environmental Quality's (Department) policy for future ambient PM₁₀ monitoring requirements. Lastly, the ambient air monitoring requirements were removed from the body of the permit and placed in an attachment to the main permit (hereafter referred to as Attachment 1). MAQP #1570C replaced MAQP #1570B.

MAQP #1570-04 was a modification issued on September 1, 1994. The annual coal production limit was increased from 6.5 to 7.5 million tons per year. No other operational changes were made. MAQP #1570-04 replaced MAQP #1570C.

MAQP #1570-05 was a modification issued on June 15, 2000. The permit action was an administrative change requested by Western Energy on March 30, 2000. Western Energy requested corrections to the site location description in their permit. Additionally, the permit was updated to reflect the current format and language used in permits. MAQP #1570-05 replaced MAQP #1570-04.

MAQP #1570-06 was a modification issued on July 19, 2001. The Department received a letter, dated April 27, 2001, from Western Energy requesting termination of the ambient air-monitoring network. Following the October 9, 1998, permitting guidance statement, the Department reviewed the ambient air monitoring data. In a letter dated May 23, 2001, the Department agreed to Western Energy's request to terminate their ambient monitoring program, effective July 1, 2001. The permit action updated the monitoring requirements to reflect the termination of the ambient air-monitoring network. MAQP #1570-06 replaced MAQP #1570-05.

MAQP #1570-08 was a modification issued on October 31, 2014. The Department received an application, dated August 18, 2014, from Bison Engineering, Inc (Bison) on behalf of Western Energy for modification of Western Energy's air quality permit to authorize replacement of the particulate matter control technology on the secondary crushers and the transfer points on the overland conveyor. Western Energy employed mechanical local exhaust ventilation in conjunction with baghouse control for the capture and removal of airborne particulate matter from the referenced coal processing and handling equipment. Western Energy proposed the installation and operation of a foam dust suppression control system (FDSS) in the control of particulate matter in lieu of the negative pressure capture and baghouse removal systems. This permit action authorized the removal of the existing control equipment and accounted for the installation and operation of the FDSS on the secondary crushers and overland conveyor transfer points. MAQP #1570-08 was issued to replace MAQP #1570-06 while MAQP #1570-07 was waiting for the EIS and ROD to be completed. Conditions from MAQP #1570-08 have been included in MAQP #1570-07, and MAQP #1570-07 will be the current permit.

MAQP #1570-07 was a modification issued on May 30, 2019. On April 18, 2013, the Department received an initial application from Bison Engineering, Inc. (Bison), on behalf of Western Energy, for modification of Western Energy's air quality permit to allow expansion to the geographic extent of the mine. The existing MAQP explicitly defined the physical area in which mining activities are permitted. As such, the application requested an expansion of this physical boundary into a new area designated as Area F. No additional coal production capacity was requested with the April 18, 2013, request; the objective of the expansion was to further extend the life of the mine by replacing areas from which coal has been extracted.

Supplemental information and data was received by the Department on June 12, 2013. The permit action provided for an expansion of the mines operational boundary. No additional stationary or portable equipment were proposed. The preliminary determination was issued on July 23, 2013, after which time, an Environmental Impact Statement (EIS) was conducted. On

April 18, 2019, the Record of Decision was issued. With the EIS and ROD completed, the Department issued a decision on the Air Quality Permit.

This permit action also incorporated a de minimis action approved by the Department on July 20, 2013, which increased the annual production capacity limit by 500,000 tons to a total of 8.0 million tons per year. In addition, this permit action updated permit language and rule references used by the Department, as well as updated the emission inventory. **MAQP #1570-07** replaced MAQP #1570-08.

D. Current Permit Action

On April 24, 2019, the Department received a request from Westmoreland to administratively open their current MAQP to transfer ownership of the permit from Western Energy Company to Westmoreland Rosebud Mining LLC. This was a result of the bankruptcy which transferred ownership from Western Energy Company to the subsidiary Westmoreland Rosebud Mining LLC owned by the larger Westmoreland Mining Holdings, LLC. **MAQP #1570-09** replaces MAQP #1570-07.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technologies (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 locations 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).

Westmoreland 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 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 which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO₂)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standards for Ozone (O₃)
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide (H₂S)
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standards for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (PM₁₀)

Westmoreland 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 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 matter. (2) Under this rule, Westmoreland 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 Processes. This rule requires that no person shall cause, suffer, allow, or permit to be discharged into the outdoor atmosphere from any operation, process or activity, particulate matter in excess of the amount shown in this rule.
5. ARM 17.8.322, Sulfur Oxide Emissions-Sulfur in Fuel. 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
6. ARM 17.8.324(3) Hydrocarbon Emissions--Petroleum Products. No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner and operator of any stationary source or modification, 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.

8. 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. Westmoreland 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 MAQP application. A permit application is incomplete until the proper application fee is paid to the Department. Westmoreland 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 MAQP (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 MAQP 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 person to obtain an MAQP 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 of any pollutant.

Westmoreland has a PTE greater than 25 tons per year of PM, PM₁₀, Volatile Organic Compounds (VOC); therefore, an MAQP is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the MAQP 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 MAQP 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. Westmoreland 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. Westmoreland submitted an affidavit of publication of public notice for the April 18, 2013, issue of the *Independent Press*, a newspaper of general circulation in the City of Forsyth in Rosebud 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. 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 MAQPs 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 Westmoreland 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 MAQP 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 MAQP 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 MAQP 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 MAQP 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 (PSD) 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 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 source's potential to emit (excluding fugitive emissions) is below 250 tons per year of any pollutant.

- 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. Potential to emit (PTE) > 10 ton/year of any single Hazardous Air Pollutant (HAP), PTE > 25 ton/year of total combined HAPs, or lesser quantity as the Department may establish by rule;
 - b. PTE > 100 ton/year of any pollutant; or
 - c. Sources with the PTE > 70 ton/year of PM₁₀ in a serious PM₁₀ non-attainment 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 MAQP #1570-09 for Westmoreland, the following conclusions were made:
 - a. The facility's PTE is less than 100 ton/year for any pollutant, excluding fugitives.
 - b. The facility's PTE is less than 10 tons/year for any single HAP and less than 25 ton/year of combined HAPs.
 - c. This source is not located in a serious PM₁₀ non-attainment area.
 - d. This facility is subject to 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, nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V sources.

Based on these conclusions, the Department has determined that Westmoreland will be a minor source of emissions as defined under Title V. Therefore, a Title V operating permit is not required.

III. BACT Determination

A BACT determination is required for each new or modified source. Westmoreland shall install on the new or modified source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. This permitting action was an administrative amendment therefore, a BACT determination was not required.

IV. Emission Inventory

The following table presents the total emissions from Area C and the Area F expansion. As a result of the Area F expansion the emission inventory for Area C was updated to reflect emission factors and estimation methods currently employed by the Department. All mining activity, coal extraction, and coal processing were accounted for under the Area C emission inventory. A complete emission inventory is available from the Department.

Area C - Potential Emissions Summary

| Fugitive Emissions | | | | | | | |
|---|----------------|------------------|-------------------|---------------|-----------------|-----------------|----------|
| Emission Source(s) | PM | PM ₁₀ | PM _{2.5} | CO | NO _x | SO ₂ | VOC |
| Topsoil Removal | 74.93 | 37.46 | 3.75 | -- | -- | -- | -- |
| Topsoil Dumping | 2.85 | 1.35 | 0.2 | -- | -- | -- | -- |
| Overburden Drilling | 4.22 | 0.52 | 0.05 | -- | -- | -- | -- |
| Overburden Blasting Cast Blasting | 110.95 | 57.69 | 3.33 | -- | -- | -- | -- |
| Overburden Removal - Dragline | 623.78 | 120.22 | 10.6 | -- | -- | -- | -- |
| Overburden Handling - Truck/Shovel | 250.88 | 188.16 | 4.77 | -- | -- | -- | -- |
| Overburden Dumping | 2.85 | 1.35 | 0.2 | -- | -- | -- | -- |
| Overburden Handling - Bulldozer | 97.8 | 18.57 | 10.27 | -- | -- | -- | -- |
| Haul Roads - Travel | 852.27 | 227.09 | 22.57 | -- | -- | -- | -- |
| Access Roads - Unpaved | 374 | 101.56 | 10.16 | -- | -- | -- | -- |
| Coal Drilling | 0.71 | 0.09 | 0.01 | -- | -- | -- | -- |
| Coal Blasting | 40.67 | 21.15 | 1.22 | -- | -- | -- | -- |
| Coal Removal | 0.33 | 0.11 | 0.02 | -- | -- | -- | -- |
| Explosive Detonation (ANFO) | -- | -- | -- | 577.04 | 146.41 | 17.23 | -- |
| Disturbed Acres - Complete (< 2 yrs.) | 39.79 | 19.89 | 1.99 | -- | -- | -- | -- |
| Disturbed Acres - Partial (< 1 yrs.) | 134.06 | 67.03 | 6.7 | -- | -- | -- | -- |
| Disturbed Acres - Partial (> 1 yrs.) | 119.51 | 59.76 | 5.98 | -- | -- | -- | -- |
| Disturbed Acres - Pits, Peaks, Soil Stripping | 1066.13 | 533.06 | 53.31 | -- | -- | -- | -- |
| TOTAL FUGITIVE EMISSIONS | 3795.73 | 1455.06 | 135.13 | 577.04 | 146.41 | 17.23 | 0 |

| Non-Fugitive Emissions | | | | | | | |
|-------------------------------------|-------------|------------------|-------------------|----------|-----------------|-----------------|----------|
| Emission Source(s) | PM | PM ₁₀ | PM _{2.5} | CO | NO _x | SO ₂ | VOC |
| Truck Dump - Coal | 0.27 | 0.1 | 0.01 | -- | -- | -- | -- |
| Coal Crusher | 0.8 | 0.24 | 0.02 | -- | -- | -- | -- |
| Coal Conveyors | 0.08 | 0.03 | 0.004 | -- | -- | -- | -- |
| TOTAL NON-FUGITIVE EMISSIONS | 1.15 | 0.37 | 0.034 | 0 | 0 | 0 | 0 |

Area F - Potential Emissions Summary

| Fugitive Emissions | | | | | | | |
|---------------------------------|---------------|------------------|-------------------|----------|-----------------|-----------------|----------|
| Emission Source(s) | PM | PM ₁₀ | PM _{2.5} | CO | NO _x | SO ₂ | VOC |
| Haul Roads - Travel | 309.51 | 82.47 | 8.2 | -- | -- | -- | -- |
| Access Roads - Unpaved | 36 | 9.78 | 0.98 | -- | -- | -- | -- |
| TOTAL FUGITIVE EMISSIONS | 345.51 | 92.25 | 9.18 | 0 | 0 | 0 | 0 |

V. Existing Air Quality

The Rosebud Mine is located in areas designated as attainment/unclassifiable for the PM₁₀ National Ambient Air Quality Standard (NAAQS). MAQP #1570-09 contains emission limits and control measures to limit impacts to existing air quality.

VI. Air Quality Impact Analysis

Based upon an evaluation of historical data, consideration of the activities proposed, and limitations and control measures present within MAQP #1570-09, the Department has determined that impacts to ambient air quality from this permit action will be minor. Furthermore, the expansion into Area F did not result in a violation of ambient air quality standards.

Historical data relates to past PM₁₀ monitoring results and a review of available production data collected during the monitoring period. Pursuant to permit conditions, Western Energy was required to operate seven PM₁₀ ambient air quality monitoring sites from 1992 through 2000. These sites were situated throughout the entire Rosebud Mine complex. Monitoring during the period from 1992-2000 demonstrated that ambient concentrations of PM₁₀ were well below the NAAQS and Montana Ambient Air Quality Standards (MAAQS). The highest 24-hour average PM₁₀ concentration recorded from any individual station during the active monitoring period was 80 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The next highest 24-hour average concentration reported was 78 $\mu\text{g}/\text{m}^3$. In turn, the highest annual average PM₁₀ concentration recorded from any individual site was 14 $\mu\text{g}/\text{m}^3$. The highest 24-hour and annual average PM₁₀ are 53% and 28% of the respective ambient air quality standard. Based on an ongoing demonstration of compliance with the PM₁₀ NAAQS and MAAQS, Western Energy requested authorization from the Department to discontinue ambient monitoring. The request was approved and monitoring ceased in 2001.

A review of production related data from the period in which monitoring was performed (1992-2000) indicates Area C mining activity was generally representative of current activity. Coal production for the years 1994 through 2000 (years of available data during the 1992-2000 monitoring time period) from Area C averaged 6.29 million tons per year, with a high production of 7.52 million tons in 1999. In comparison, coal production during the period 2008 through 2012 from Area C averaged 6.96 million tons per year, with a high production of 7.87 million tons in 2008. As a result, ambient PM₁₀ concentrations produced during 1992 through 2000 should be representative of current and projected mine activity.

The expansion into Area F will encompassed an additional 6,746 acres, bringing the combined extent addressed by MAQP #1570-07 to 12,817 acres. As proposed the expansion did not entail any additional mining activity or associated emission increase. Emissions concomitant with topsoil and overburden removal and handling, blasting, and coal extraction were accounted for with the existing emission inventory. A portion of this mining activity was reallocated to the expansion site. Any new or increased sources of emissions were limited to the extension of access and haul roads necessary to bring coal to the existing truck dump area located in Area C. MAQP #1570-07 placed a restriction on the amount of coal produced from Area F to 4.0

million tons per year. With the coal production limit of 4.0 million tons per year placed on Area F, the continuation of the existing permit-wide coal production limit of 8.0 million tons per year, as well as the effective expansion to the geographic extent of mining activities over a larger area; it is reasonable to consider impacts from this permit action will not create significant additional impacts to air quality.

Concerning particulate emission with an aerodynamic diameter of 2.5 microns or less (PM_{2.5}), the Department took derived PM₁₀ ambient concentrations from past monitoring and applied given PM_{2.5} to PM₁₀ ratios. Several EPA referenced emission factors have been generated from test programs aimed to establish this correlation. Generally accepted estimates from such initiatives consistently present emission fractions of PM_{2.5} at a range of 0.1 to 0.15 for unpaved roadways and 0.15 to 0.2 for wind erosion from industrial and construction sites. No specific data is available for western coal mines, however emission factors were developed from sources with similar characteristics, including; large open cut aggregate mines and large-scale construction projects.

Application of the highest PM_{2.5} to PM₁₀ ratio referenced, in conjunction with the highest 24-hour and annual average PM₁₀ observed concentrations from the previously mention monitoring data, indicates expected PM_{2.5} ambient concentration will be well below the prescribed NAAQS and MAAQS. Consequently PM_{2.5} emissions resulting from this permit action will not significantly impact air quality.

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 | |
|-----|----|--|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property) |
| | X | 4. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 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? |
| | X | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action) |
| | X | 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? |
| | X | 7a. Is the impact of government action direct, peculiar, and significant? |
| | X | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded? |

| YES | NO | |
|-----|----|--|
| | X | 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? |
| | X | Takings or damaging implications? (Takings 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 Policy Act, is not required for the current permit action because it is an administrative action.

Permit Analysis Prepared by: Craig Henrikson

Date: May 30, 2019