

January 28, 2021

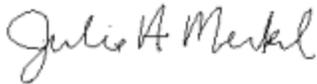
Mr. Brad Watkins  
Barretts Minerals, Inc.  
Regal Mine  
8625 MT Hwy 91 South  
Dillion, MT 59725

Sent via email: [brad.watkins@mineralstech.com](mailto:brad.watkins@mineralstech.com)

Dear Mr. Watkins:

Montana Air Quality Permit #3086-02 is deemed final as of January 28, 2021, by the Department of Environmental Quality (Department). This permit is for a talc mine. 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



Julie Ackerlund  
Air Quality Engineer  
Air Quality Bureau  
(406) 444-4267

JM:JA  
Enclosure

Montana Department of Environmental Quality  
Air, Energy & Mining Division

Montana Air Quality Permit #3086-02

Barretts Minerals, Inc.  
Regal Mine  
8625 MT Hwy 91 South  
Dillion, MT 59725

January 28, 2021



## MONTANA AIR QUALITY PERMIT

Issued To:	MAQP: #3086-02
Barretts Minerals, Inc.	Application Complete: 11/09/2020
Regal Mine	Preliminary Determination Issued: 11/23/2020
8625 MT Hwy 91 South	Department's Decision Issued: 01/12/2021
Dillion, MT 59725	Permit Final: 01/28/2021

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Barretts Minerals, Inc. (BMI), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8. 740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

#### A. Plant Location

BMI operates the Regal Mine, a talc mine, located in Section 35, Township 7 South, Range 7 West, Madison County, Montana. The latitude and longitude of the mine site centroid is 45.1754 N, -112.4326 W.

#### B. Current Permit Action

On October 6, 2020, the Montana Department of Environmental Quality (Department) received an application requesting to increase the processing rate of both the waste rock and production ore. Additional supporting information was received on October 22, 2020 and November 9, 2020. The application was deemed complete on November 9, 2020. BMI proposes to process an additional 6,700,000 tons of waste rock on a rolling 12-month basis for a total of 10,200,000 tons of waste rock processing per rolling 12-months. BMI also proposes to process an additional 50,000 tons of ore product on a rolling 12-month basis for a total of 250,000 tons of ore production per rolling 12-months. MAQP #3086-02 incorporates the requested changes and updates the permit to reflect current Department language, rule references, and federal emission standards for affected equipment.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. BMI shall not 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 (ARM 17.8.304).
2. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following

averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 Code of Federal Regulations (CFR) 60, Subpart OOO):

- a. For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity
  - b. For crushers that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 15% opacity
3. All visible emissions from any NSPS-affected equipment, other than a crusher (such as screens and conveyors), shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO):
    - a. For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity
    - b. For equipment that commences construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity
  4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
  5. Maximum ore production at BMI shall be limited to 250,000 tons during any 12-month rolling period (ARM 17.8.749).
  6. Maximum waste rock production at BMI shall be limited to 10,200,000 tons during any 12-month rolling period (ARM 17.8.749).
  7. The 180-horsepower engine/generator shall be compliant with Environmental Protection Agency (EPA) non-road compression-ignition engine Tier 3 (at minimum) emission standards for all pollutants for the same model year and maximum engine power (ARM 17.8.749).
  8. BMI 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).
  9. BMI 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.8 (ARM 17.8.749)
  10. BMI shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

11. BMI shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start-up, an EPA Method 9 opacity test and/or other methods and procedures as specified in 40 CFR Part 60.675 must be performed on any NSPS-affected equipment, to demonstrate compliance with the emission limitations contained in Sections II.A.2 and II.A.3 (ARM 17.8.340, 40 CFR 60, Subpart A and Subpart OOO).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational and Emission Inventory Reporting Requirements

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

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

2. BMI shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 (1) 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. 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 BMI 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. BMI shall document, by month, the ore and waste production at the facility. By the 25th day of each month, BMI shall total the ore and waste rock production for the previous month. This monthly information will be used to verify compliance with the rolling 12-month limitations in Sections II.A.5 and 6. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

BMI shall supply the Department the following notification (ARM 17.8.749).

1. Anticipated date of initial start-up of any NSPS Subpart OOO affected facilities postmarked not more than 60 days nor less than 30 days prior to such date (ARM 17.8.749).
2. Actual date of initial start-up of any NSPS Subpart OOO affected facilities postmarked within 15 days after such date (ARM 17.8.749).
3. Make, model, year of manufacture, and date of installation of any equipment (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection - BMI shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, 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 BMI fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving BMI 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 therefor, 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, failure to pay the annual operation fee by BMI 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  
Barretts Minerals, Inc. Regal Mine  
MAQP #3086-02

I. Introduction/ Process Description

Barretts Minerals, Inc. (BMI) owns and operates the Regal Mine, a talc mine, located in Section 35, Township 7 South, Range 7 West, Madison County, Montana. This mine is located along Sweetwater Road approximately 11 miles east-southeast of Dillon, Montana.

A. Permitted Equipment

The current permit will allow BMI to drill, blast, crush, screen, and stockpile talc. Originally, BMI did not have any equipment on site. The operation at the site now includes a 180 horsepower (hp) diesel fueled Tier 3 engine/generator and a 200-kilowatt (kw) diesel fueled emergency engine/generator.

B. Source Description

BMI, a talc mine, has been undergoing exploration and development activities since 1972. The talc is drilled and blasted from the mine and hauled to the Barretts Mill Complex for processing. This permit covers the operations of the facility. Operations include blasting, drilling, crushing, screening, and conveying of material. Emissions are also generated from diesel generators, bulk loading, stockpiles, diesel vehicle exhaust, and haul and access roads.

C. Permit History

On March 7, 2000, the Department of Environmental Quality (Department) received a completed application from BMI to operate a talc mine. **MAQP #3086-00** was issued final on May 6, 2000 to BMI.

On June 2, 2010, the Department received a request for the addition of a Tier 3, 180-hp diesel engine/generator. The permit action added the diesel engine/generator to the list of permitted equipment and updated the permit to reflect the current permit language and rule references used by the Department. **MAQP #3086-01** replaced MAQP #3086-00.

D. Current Permit Action

On October 6, 2020, the Montana Department of Environmental Quality (Department) received an application requesting to increase the processing rate of both the waste rock and production ore. Additional supporting information was received on October 22, 2020 and November 9, 2020. The application was deemed complete on November 9, 2020. BMI proposes to process an additional 6,700,000 tons of waste rock on a rolling 12-month basis for a total of 10,200,000 tons of waste rock processing per rolling 12-months. BMI also proposes to process an additional 50,000 tons of ore product on a rolling 12-month basis for a total of 250,000 tons of ore production per rolling 12-months. MAQP #3086-02 incorporates the requested changes and updates the permit to reflect current Department language, rule

references, and federal emission standards for affected equipment. **MAQP #3086-02** replaces MAQP #3086-01.

E. Response to Public Comments

Person/Group Commenting	Permit Reference	Comment	Department Response
No comments received			

F. Additional Information

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

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations which 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 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 emissions 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).

BMI 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. In rule (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. In rule (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. In rule (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 17.8.210, Ambient Air Quality Standards for Sulfur Dioxide,
2. ARM 17.8.211, Ambient Air Quality Standards for Nitrogen Dioxide,
3. ARM 17.8.212, Ambient Air Quality Standards for Carbon Monoxide,
4. ARM 17.8.213, Ambient Air Quality Standard for Ozone,
5. ARM 17.8.214, Ambient Air Quality Standard for Hydrogen Sulfide,
6. ARM 17.8.220, Ambient Air Quality Standard for Settled Particulate Matter,
7. ARM 17.8.221, Ambient Air Quality Standard for Visibility,
8. ARM 17.8.222, Ambient Air Quality Standard for Lead, and
9. ARM 17.8.223, Ambient Air Quality Standard for PM<sub>10</sub>.

BMI 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 to an outdoor atmosphere from any source installed after Nov. 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308, Particulate Matter, Airborne. Rule (1) requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. Under rule (2), BMI shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309, Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310, Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322, Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324(3), Hydrocarbon Emissions--Petroleum Products. In rule (3), 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 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). BMI is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
  - a. 40 CFR 60, Subpart A – General Provisions. apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing/screening plant to be subject to NSPS requirements, two specific criteria must be met. First, the crushing/screening plant must meet the definition of an affected facility and, second, the equipment in question must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by BMI, at the time of issuance of MAQP #3086-01, the crushing/screening equipment to be used under MAQP #3086-02 may potentially be subject to New Source Performance Standards (NSPS) requirements (40 CFR 60, Subpart A General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants).
  - c. 40 CFR 60, Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary compression ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. Based on the information submitted by BMI, the 180 hp Tier III diesel engine generator to be used under MAQP #3086-02 was constructed after April 1, 2006 and is subject to this subpart.

8. ARM 17.8.341, Standards of Performance for Hazardous Air Pollutants. The source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.
9. 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. BMI is considered a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts:
  - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAP Subpart as listed below:
  - b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Pursuant to 40 CFR 63.6590(a), an affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. Pursuant to 40 CFR 63.6590(a)(2)(iii), a stationary RICE located at an area source of HAP emissions is new if construction commenced on the stationary RICE on or after June 12, 2006. Based on the information submitted by BMI, the RICE equipment to be used under MAQP #3086-01 is subject to this subpart because the 180 hp Tier III diesel generator to be used under MAQP #3086-01 was constructed after April 1, 2006.

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. The permit application fee was received on October 6, 2020.
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. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The

Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740, Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743, Montana Air Quality Permits--When Required. This rule requires a 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. BMI has a PTE greater than 25 tpy of total particulate matter (PM), PM with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), PM with an aerodynamic diameter of 2.5 microns or less (PM<sub>2.5</sub>), and carbon monoxide (CO); 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. Rule (1) requires that a permit application be submitted prior to installation, modification, or use of a source. BMI submitted the required permit application for the current permit action. Rule (7) 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. BMI submitted an affidavit of publication of public notice for the October 7, 2020 issue of the Dillion Tribune, a newspaper of general circulation in the Town of Dillion in Madison 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 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 BMI 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 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 ARM 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 subchapter would otherwise allow.

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

- G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201, Definitions. In rule (23), Major Source under Section 7412 of the Federal Clean Air Act (FCAA) is defined as any source having:
    - a) PTE > 100 tons/year of any pollutant;
    - b) PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
    - c) PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.
  2. ARM 17.8.1204 Air Quality Operating Permit Program. In rule (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 #3086-02 for BMI, the following conclusions were made:
    - a) The facility's PTE is less than 100 tons/year for any pollutant.
    - b) The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
    - c) This source is not located in a serious PM<sub>10</sub> nonattainment area.
    - d) This facility is subject to an NSPS (40 CFR 60, Subpart IIII and potentially subject to Subpart OOO).
    - e) This facility is subject to a current NESHAP standard (40 CFR 60, Subpart ZZZZ).

- f) This source is not a Title IV affected source, nor a solid waste combustion unit.
- g) This source is not an Environmental Protection Agency designated Title V source.

Based on these facts, the Department determined that BMI will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, BMI will be required to obtain a Title V Operating Permit.

### III. BACT Determination

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

A BACT analysis was submitted by BMI in permit application #3086-02, addressing available methods of controlling particulate matter emissions from the requested annual increases of ore production and waste rock production. BMI identified that wet dust suppression and no add-on controls were the only two technically feasible control technologies. Wet dust suppression is achieved through the application of water or a chemical dust suppressant from water bars or spray bars. Wet dust suppression can control up to 50 percent of the particulate matter emissions. BMI proposes, and the Department concurs, that BACT shall be limiting opacity to the equipment specific opacity limit and that it shall be achieved by using wet dust suppression, as necessary. The Department reviewed these methods, as well as previous BACT determinations. This BACT determination is consistent with other BACT determinations for the production of ore and waste rock.

### IV. Emission Inventory

**Facility Emissions (tpy)**

	TSP	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	VOC	SO <sub>2</sub>
Drilling	11.25	5.63	5.63				
Blasting	4.50	2.25	2.25	12.24	48.24	15.05	1.44
Stockpile/Waste Ore	51.00	20.40	20.40				
Ore Production	1.25	0.50	0.50				
Crushing	2.50	1.13	1.13				
Screening	3.13	1.09	1.09				
Conveying	1.25	0.50	0.50				
Emergency Generator	0.19	0.19	0.19	0.27	0.58	0.22	0.18
Existing Generator	0.23	0.23	0.23	4.64	0.17	1.97	1.62
Haul Roads	115.52	51.99	51.99				
Access Roads	39.42	17.74	17.74				
<b>Total (tons/year)</b>	<b>230.24</b>	<b>101.64</b>	<b>101.64</b>	<b>17.15</b>	<b>48.99</b>	<b>17.24</b>	<b>3.24</b>

### **Drilling**

Holes Drilled: 15,000 holes (Project increase of 10,000 holes per year)  
Hours of operation: 8760 hr/yr

TSP Emissions:

Emission Factor: 1.5 lb/hole {AP-42}  
Calculations: 15,000 holes \* 1.5 lb/hole \* 1 ton/2000 lb = 11.25 tpy

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emission Factor: 0.75 lb/hole {AP-42}  
Calculations: 15,000 holes \* 0.75 lb/hole \* 1 ton/2000 lb = 5.63 tpy

### **Blasting**

Number of Blasts: 180 blasts (Project increase of 120 blasts per year)  
Hours of Operation: 8760 hr/yr  
1,440 ton ANFO/yr (8 ton ANFO/blast)

TSP Emissions:

Emission Factor: 50 lb/blast {AP-42}  
Calculations: 180 blasts \* 50 lb/blast \* 1 ton/2000 lb = 4.5 tpy

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emission Factor: 25 lb/blast {AP-42}  
Calculations: 180 blasts \* 25 lb/blast \* 1 ton/2000 lb = 2.25 tpy

NO<sub>x</sub> Emissions:

Emission Factor: 17 lb/ton ANFO {AP-42, Table 13.3-1, 1/95}  
Calculations: 1,440 ton ANFO/yr \* 17 lb/ton ANFO \* 1 ton/2000 lb = 12.24 tpy

CO Emissions:

Emission Factor: 67 lb/ton ANFO {AP-42, Table 13.3-1, 1/95}

Calculations:  $1,440 \text{ ton ANFO/yr} * 67 \text{ lb/ton ANFO} * 1 \text{ ton}/2000 \text{ lb} = 48.24 \text{ tpy}$

VOC Emissions:

Emission Factor: 20.9 lb/ton ANFO {AP-42, Table 13.3-1, 1/95}

Calculations:  $1,440 \text{ ton ANFO/yr} * 20.9 \text{ lb/ton ANFO} * 1 \text{ ton}/2000 \text{ lb} = 15.048 \text{ tpy}$

SO<sub>2</sub> Emissions:

Emission Factor: 2 lb/ton ANFO {AP-42, Table 13.3-1, 1/95}

Calculations:  $1,440 \text{ ton ANFO/yr} * 2 \text{ lb/ton ANFO} * 1 \text{ ton}/2000 \text{ lb} = 1.44 \text{ tpy}$

### **Stockpile/Waste Rock**

Waste Rock: 10,200,000 tpy (Project increase of 6,700,000 tons waste per year)

Hours of Operation: 8760 hr/yr

No control efficiency is credited for emissions because BACT only requires use of wet dust suppression as needed to limit opacity to 20% since the material has an inherent high moisture content.

TSP Emissions:

Emissions Factor: 0.01 lb/ton {AP-42, Table 11.19.2-2}

Calculations:  $10,200,000 \text{ tpy} * 0.01 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lb} = 51.00 \text{ tpy}$

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emissions Factor: 0.004 lb/ton {AP-42, Table 11.19.2-2}

Calculations:  $10,200,000 \text{ tpy} * 0.004 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lb} = 20.40 \text{ tpy}$

### **Ore Production/Bulk Loading**

Ore Production: 250,000 tpy (Project increase of 50,000 tons ore product per year)

Hours of Operation: 8760 hr/yr

No control efficiency is credited for emissions because BACT only requires use of wet dust suppression as needed to limit opacity to 20% since the material has an inherent high moisture content.

**TSP Emissions:**

Emissions Factor: 0.01 lb/ton {AP-42, Table 11.19.2-2}

Calculations: 250,000 tpy \* 0.01 lb/ton \* 1 ton/2000 lb = 1.25 tpy

**PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:**

Emissions Factor: 0.004 lb/ton {AP-42, Table 11.19.2-2}

Calculations: 250,000 tpy \* 0.004 lb/ton \* 1 ton/2000 lb = 0.50 tpy

**Crushing**

Processed Ore: 250,000 tpy (Project increase of 50,000 tons ore product per year with an inherent moisture content of 15-20%)

Hours of Operation: 8760 hr/yr

**TSP Emissions:**

Emissions Factor: 0.02 lb/ton {AP-42, Table 11.24-2, for ore with ≥5 percent moisture by weight}

Calculations: 250,000 tpy \* 0.02 lb/ton \* 1 ton/2000 lb = 2.50 tpy

**PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:**

Emissions Factor: 0.009 lb/ton {AP-42, Table 11.24-2}

Calculations: 250,000 tpy \* 0.009 lb/ton \* 1 ton/2000 lb = 1.125 tpy

**Screening**

Processed Ore: 250,000 tpy (Project increase of 50,000 tons ore product per year)

Hours of Operation: 8760 hr/yr

TSP Emissions:

Emissions Factor: 0.025 lb/ton {AP-42, Table 11.19.2-2}

Calculations:  $250,000 \text{ tpy} * 0.025 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lb} = 3.125 \text{ tpy}$

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emissions Factor: 0.0087 lb/ton {AP-42, Table 11.19.2-2}

Calculations:  $250,000 \text{ tpy} * 0.0087 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lb} = 1.0875 \text{ tpy}$

### Conveying

Conveyed Ore: 250,000 tpy (Project increase of 50,000 tons ore product per year with an inherent moisture content of 15-20%)

Hours of Operation: 8760 hr/yr

TSP Emissions:

Emissions Factor: 0.01 lb/ton {AP-42, Table 11.24-2}

Calculations:  $250,000 \text{ tpy} * 0.01 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lb} = 1.25 \text{ tpy}$

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emissions Factor: 0.004 lb/ton {AP-42, Table 11.24-2}

Calculations:  $250,000 \text{ tpy} * 0.004 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lb} = 0.50 \text{ tpy}$

### Diesel Generator (Emergency, 200 kw = 349 hp)

Hours of operation: 500 hr/yr

Number of Generators 1 Generator

TSP Emissions

Emission Factor: 0.0022 lbs/hp-hr (AP-42, Table 3.3-1)

Calculations:  $0.0022 \text{ lbs/hp-hr} * 500 \text{ hr/yr} * 349 \text{ hp} * 0.0005 \text{ tons/lb} = 0.19 \text{ tpy}$

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emission Factor: 0.0022 lbs/hp-hr (AP-42, Table 3.3-1)

Calculations:  $0.0022 \text{ lbs/hp-hr} * 500 \text{ hr/yr} * 349 \text{ hp} * 0.0005 \text{ tons/lb} = 0.19 \text{ tpy}$

NO<sub>x</sub> Emissions:

Emission Factor: 0.0031 lbs/hp-hr (AP-42, Table 3.3-1)

Calculations:  $0.0031 \text{ lbs/hp-hr} * 500 \text{ hr/yr} * 349 \text{ hp} * 0.0005 \text{ tons/lb} = 0.270475 \text{ tpy}$

CO Emissions:

Emission Factor: 0.00668 lbs/hp-hr (AP-42, Table 3.3-1)

Calculations:  $0.00668 \text{ lbs/hp-hr} * 500 \text{ hr/yr} * 349 \text{ hp} * 0.0005 \text{ tons/lb} = 0.58283 \text{ tpy}$

VOC Emissions:

Emission Factor: 0.00251 lbs/hp-hr (AP-42, Table 3.3-1)

Calculations:  $0.00251 \text{ lbs/hp-hr} * 500 \text{ hr/yr} * 349 \text{ hp} * 0.0005 \text{ tons/lb} = 0.2189975 \text{ tpy}$

SO<sub>2</sub> Emissions:

Emission Factor: 0.00205 lbs/hp-hr (AP-42, Table 3.3-1)

Calculations:  $0.00205 \text{ lbs/hp-hr} * 500 \text{ hr/yr} * 349 \text{ hp} * 0.0005 \text{ tons/lb} = 0.1788625 \text{ tpy}$

**Diesel Generator (180 hp – Tier III)**

Hours of operation: 8760 hr/yr

Number of Generators 1 Generator

$180 \text{ hp} * 0.746 \text{ kw/hp} = 134 \text{ kw}$

TSP Emissions

Emission Factor: 0.18 g/kw-hr (manufacturer's data) \* 0.0022 lbs/g = 0.000397 lbs/kw-hr

Calculations:  $0.000397 \text{ lbs/kw-hr} * 134 \text{ kw} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 0.23300724 \text{ tpy}$

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emission Factor: 0.18 g/kw-hr (manufacturer's data) \* 0.0022 lbs/g = 0.000397 lbs/kw-hr  
Calculations: 0.000397 lbs/kw-hr \* 134 kw \* 8760 hr/yr \* 0.0005 tons/lb = 0.23300724 tpy

NO<sub>x</sub> Emissions:

Emission Factor: 3.6 g/kw-hr (manufacturer's data) \* 0.0022 lbs/g = 0.0079 lbs/kw-hr  
Calculations: 0.0079 lbs/kw-hr \* 134 kw \* 8760 hr/yr \* 0.0005 tons/lb = 4.636668 tpy

CO Emissions:

Emission Factor: 1.3 g/kw-hr (manufacturer's data) \* 0.0022 lbs/g = 0.000287 lbs/kw-hr  
Calculations: 0.000287 lbs/kw-hr \* 134 kw \* 8760 hr/yr \* 0.0005 tons/lb = 0.16844604 tpy

VOC Emissions:

Emission Factor: 0.0025 lbs/hp-hr (AP-42, Table 3.3 Table 3.3-1, TOC, Exhaust+crankcase)  
Calculations: 0.0025 lbs/hp-hr \* 180 hp \* 8760 hr/yr \* 0.0005 tons/lb = 1.971 tpy

SO<sub>2</sub> Emissions:

Emission Factor: 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1)  
Calculations: 0.00205 lbs/hp-hr \* 180 hp \* 8760 hr/yr \* 0.0005 tons/lb = 1.61622 tpy

**Haul Roads**

Vehicle miles traveled: 211 VMT/day {Estimated}  
Control Efficiency: 50% for watering

TSP Emissions:

Emission Factor: 6 Lbs/VMT (Rated Load Capacity < 50 tons)  
Calculation: 211 VMT/day \* 365 day/yr \* 6.00 Lbs/VMT \* 0.005 tons/lb \* 0.5 = 115.5225 tpy

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

PM<sub>10</sub> Emission Factor is determined by AQD policy dated 4/25/94:

Emission Factor:

2.7 lbs/VMT (Rated Load Capacity < 50 tons)

Calculation:  $211 \text{ VMT/day} * 365 \text{ day/yr} * 2.70 \text{ Lbs/VMT} * 0.005 \text{ tons/lb} * 0.5 = 51.985125 \text{ tpy}$

**Access Roads**

Vehicle miles traveled: 72 VMT/day {Estimated}

Control Efficiency: 50% for watering

TSP Emissions:

Emission Factor:

6 Lbs/VMT (Rated Load Capacity < 50 tons)

Calculation:  $72 \text{ VMT/day} * 365 \text{ day/yr} * 6.00 \text{ Lbs/VMT} * 0.5 = 39.42 \text{ tpy}$

PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

PM<sub>10</sub> Emission Factor is determined by AQD policy dated 4/25/94:

Emission Factor:

2.7 lbs/VMT (Rated Load Capacity < 50 tons)

Calculation:  $72 \text{ VMT/day} * 365 \text{ day/yr} * 2.70 \text{ Lbs/VMT} * 0.5 = 17.739 \text{ tpy}$

V. Existing Air Quality

BMI is located approximately 11 miles east-southeast of Dillon, Montana. The air quality in this area is currently attainment or unclassified for all pollutants.

VI. 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?
	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? (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.

VII. Environmental Assessment

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

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Air, Energy & Mining Division**

**Air Quality Bureau**

**P.O. Box 200901, Helena, Montana 59620**

**(406) 444-3490**

**ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Barretts Minerals, Inc  
Regal Mine  
8625 MT Hwy 91 South  
Dillon, MT 59725

*Montana Air Quality Permit number (MAQP):* 3086-02

*EA Draft:* 11/23/2020

*EA Final:* 01/12/2021

*Permit Final:* 01/28/2021

1. *Legal Description of Site:* Section 35, Township 7 South, Range 7 West, Madison County, MT.
2. *Description of Project:* On October 2, 2020, the Montana Department of Environmental Quality – Air Quality Bureau (Department) received a request from Barretts Minerals Inc. (BMI) to increase the waste rock production limit and increase the ore production limit at the Regal Mine.
3. *Objectives of Project:* These production rate increases will allow the mine to extend its useful life and provide operational flexibility as part of the mine expansion approved in Hard Rock Permit #00013, Amendment 006.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny the modification of the MAQP to the facility. BMI would be denied the opportunity to increase their ore and waste rock production limits. Any potential air emission increases that would be authorized by issuing the MAQP would not occur. However, the Department does not consider the “no-action” alternative to be appropriate because BMI has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration. Other alternatives considered were discussed in the BACT analysis, Section III, in the permit analysis.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #3086-02.

As required under the Sage Grouse Executive Order, the proposed project information was submitted to, and reviewed by the Montana Sage Grouse Oversight Team (MSGOT). The MSGOT reviewed the mine expansion and prepared a 2017 letter with their comments. The MSGOT was informed of BMI's proposed modification to increase production at the Regal Mine and a review of current lek information indicated that in the past year, no leks have been found within 4 miles of the expanded mine boundary and therefore, the MSGOT review of the production increase would not change the results of their mine expansion review. Reference Section 7.H for details.

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 that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
7. *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*

The permitting action would be expected to have minor effects on terrestrial and aquatic life and habitats, as the project would operate within an existing mine. Furthermore, the air emissions would likely have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of the operation (as described in Section 7.F of this EA). Therefore, only minor effect to terrestrial and aquatic life and habitat would be expected from the proposed project.

B. *Water Quality, Quantity and Distribution*

Water or a chemical dust suppressant would be required for dust suppression on the roads, mineral processing equipment and surrounding area. This water or chemical dust suppressant use would be expected to only cause minor, if any, impacts to water resources because the production increase would be within an existing mine site and the ore inherently has a high moisture content, so limited need for water or a chemical dust suppressant is expected.

In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F. of this EA. However, the Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #3086-02, any impacts from deposition of pollution on water quality, quantity, and distribution expected would be minor.

C. *Geology and Soil Quality, Stability and Moisture*

The activities associated with the current permit action would be conducted within the boundaries of the existing Regal Mine. MAQP #3806-02 would contain limitations and conditions to minimize emissions to areas beyond the permit boundary effectively reducing the potential impact. Therefore, the Department has determined that the impacts

to the geology and soil quality, stability, and moisture related to the current permit action would likely be minor.

D. *Vegetation Cover, Quantity, and Quality*

The emissions increase from this project would be expected to have a limited impact on the surrounding vegetation with respect to cover, quantity and quality. Further, minor impact to the surrounding area from the air emissions (see Section IV of the permit analysis) would be realized due to dispersion of pollutants. Impacts to vegetation cover, quantity, and quality, would not be expected to be significant.

E. *Aesthetics*

There would not be any changes to the aesthetics of the site because of this project. The site is currently an operating mine and would have the same appearance under current permitted production levels as with the proposed project's increased production levels. Visual impacts would be consistent with those found under current operations. There would not be excessive noise or any change in light. Therefore, the Department has determined that there would not be any impacts to aesthetics related to the proposed project.

F. *Air Quality*

The air quality of the area would realize minor impacts from the proposed project because the proposed project would emit additional particulate matter. These emissions would be minimized by limitations and conditions that would be included in MAQP #3086-02. While additional deposition of pollutants would occur because of the increased production, the Department determined that the impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants, the prevailing atmospheric conditions, and conditions that would be placed in MAQP #3086-02.

G. *Unique Endangered, Fragile, or Limited Environmental Resources*

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department completed a species of concern report through the environmental summary function shared by the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Search results identified a number of species within the search radius. Observed species of concern include the Greater Sage-Grouse, Westslope Cutthroat Trout and Penstemon humilis (Low Beardtongue). Numerous other potential species could inhabit the area based on predictive models and associated habitat. Since potential emission levels are minor, the Department has determined that there will be a minor disturbance to unidentified unique, endangered, fragile, or limited environmental resources in the area.

## H. *Sage Grouse Executive Order*

### **Core Area and General Habitat Area**

The Department recognizes that the facility is within a Greater Sage-grouse General Habitat Area and the south east corner of the facility is in a Core Area as defined by Executive Order No. 12-2015. As the application for this project was received after the Executive Order effective date of 1/1/2016, this project is subject to review under the Executive Order. As required under the Executive Order, the proposed project was reviewed by the Montana Sage Grouse Oversight Team (MSGOT). The MSGOT reviewed the mine expansion project and prepared a letter summarizing their findings and mitigation stipulations in 2017. The Department contacted the MSGOT to discuss this projects production increase and the MSGOT indicated that current lek information indicated that leks were identified further than 4 miles from the expanded mine boundary and therefore, no new stipulations would be required of BMI. Mitigation stipulations are designed to maintain existing levels of suitable sage grouse habitat by managing uses and activities in sage grouse habitat. The stipulations ensure the maintenance of sage grouse abundance and distribution in Montana. Development should be designed and managed to maintain populations and sage grouse habitats. The following mitigating stipulations were identified by MSGOT:

- Weed management is required within General Habitat and Core Areas for sage grouse. Reclamation of disturbed areas must include control of noxious weeds and invasive plant species, including cheatgrass (*Bromus tectorum*) and Japanese brome (*Bromus japonicas*).

Implementation of the Mitigation Plan is binding. BMI should be aware that if the location or boundaries of their project or activity changes in the future, or if new activities are proposed within the designated sage grouse habitat areas, the MSGOT shall be contacted to review the changes.

## I. *Demands on Environmental Resource of Water, Air and Energy*

The proposed project would have minor impacts on the demands for the environmental resources of air and water because the proposed production increase would be a source of air pollutants. Deposition of pollutants would occur as a result of the increased operations; however, as explained in Section 7.F of this EA, the Department determined that any impacts on air and water resources from the pollutants (including deposition) would be minor. The Department determined that controlled emissions from the source would not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the proposed facility would be minor.

The proposed project would be expected to have minor impacts on the demand for the environmental resource of energy because the proposed project is only a minor incremental increase over current operations. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

J. *Historical and Archaeological Sites*

In an effort to identify any historical and archaeological sites located near the proposed project areas, the Department contacted the Montana Historical Society, State Historical Preservation Office (SHPO). According to SHPO records, one previously recorded site, the Hoffman Homestead, was noted in the vicinity the project. The site was listed as a combo Prehistoric/Historic site located on private land that was not eligible for National Register of Historic Places status. The Environmental Impact Statement for the Regal Mine expansion prepared in March 2020 by the Department was also consulted, and it found no impacts to significant cultural resources associated with the mine expansion.

The Department has determined there will be no significant impact to historical or archaeological sites associated with this project at the Regal Mine.

K. *Cumulative and Secondary Impacts*

The cumulative and secondary impacts from the proposed project on physical and biological receptors in the immediate area due to an increase in emissions from the proposed project would be expected to be minor. Air pollution from the facility would be controlled by the limitations and conditions in MAQP #3086-02. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined within the air quality permit.

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

A. *Social Structures and Mores*

The proposed project would not create additional disruption to any native or traditional lifestyles or communities (social structures or mores) in the area as the area surrounding the project area is currently undeveloped agricultural or livestock grazing land. Furthermore, the project would occur within the boundary of the mine and the permitted project would continue to be representative of current use. The Department is not aware of any current utilization by native or traditional communities. Therefore, no known impact to social structures and mores would be expected.

B. *Cultural Uniqueness and Diversity*

The Department determined that the current permit action would not have any additional impact on the cultural uniqueness and diversity of this area of operation because the proposed project would occur within the permitted industrial boundary. The surrounding area would remain unchanged because of the proposed project.

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

The current permit action would have no impact on the local and state tax base. In turn, no additional employees are planned because of this project. Therefore, there would be no

cumulative impact to the local and state tax base and revenue.

#### *D. Agricultural or Industrial Production*

The project would only have a minor impact on local agricultural or industrial production, 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 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 #3086-02 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 the production increase would be minimized using water spray or chemical dust suppressant as necessary and other operational limits that would be required by MAQP #3086-02. 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 BMI, there is typical outdoor recreation in the area. Access to outdoor recreation will remain the same as before the project. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

#### *G. Quantity and Distribution of Employment*

The mine currently employs 15 full-time employees. No need for additional employees at the mine were identified for this project. This project is expected to both extend the useful life of the mine and provide operational flexibility. Hence, the project would have an expected extension of employment to maintain the current staffing level and with that an extension of the tax revenue while the mine remains operational.

#### *H. Distribution of Population*

This project is expected to maintain the current level of employees which will extend employment for 15 positions through the extended life of the mine. No change in the distribution of the current population would be expected with this project.

#### *I. Demands for Government Services*

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 projects production increase would represent only a minor increase in the industrial activity at the mine because the increase in talc ore production is only a 25 percent increase. Furthermore, the project activity associated with the increased production will occur within an existing mine. Therefore, only limited additional industrial or commercial activity would be expected because of the project.

K. *Locally Adopted Environmental Plans and Goals*

The Department is not aware of any locally adopted environmental plans and goals this project may impact. The State standards would be protective of the proposed project area.

L. *Cumulative and Secondary Impacts*

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social environment in the immediate area by extending the life of the mine and current employment levels. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #3086-02.

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 increase in ore product and waste rock production. MAQP #3086-02 includes conditions and limitations to ensure the facility will 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 – Montana Sage Grouse Conservation Program

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

EA prepared by: J. Ackerlund  
Date: 11/19/2020