

May 11, 2022

Cody Shick  
Molson Coors Beverage Company USA, LLC.  
Power Elevator  
P.O. Box 217  
Power, MT 59468

Sent via email: [cody.shick@molsoncoors.com](mailto:cody.shick@molsoncoors.com)

**RE: Final Permit Issuance for MAQP #4847-02**

Dear Mr. Shick:

Montana Air Quality Permit (MAQP) 4847-02 is deemed final as of May 5, 2022, by DEQ. This permit is for a grain elevator. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,



Bo Wilkins  
Air Quality Bureau Chief

For:  
Julie A. Merkel  
Permitting Services Section Supervisor  
Air Quality Bureau  
(406) 444-3626



John P. Proulx  
Environmental Scientist 2  
Air Quality Bureau  
(406) 444-5391

**Montana Department of Environmental Quality  
Air, Energy & Mining Division  
Air Quality Bureau**



Montana Air Quality Permit #4847-02

Molson Coors Beverage Company USA, LLC.  
Power Elevator  
P.O. Box 217  
Power, MT 59468

May 5, 2022

## MONTANA AIR QUALITY PERMIT

Issued To: Molson Coors Beverage  
Company USA, LLC. –  
Power Elevator  
P.O. Box 217  
Power, MT 59468

MAQP: #4847-02  
Administrative Amendment (AA) Request  
Received: 03/23/2022  
Departments Decision on AA: 04/19/2022  
Permit Final: 05/05/2022

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

### Section I: Permitted Facilities

#### A. Permitted Equipment

Molson Coors operates a barley storage and elevator facility with the ability to ship and receive 20,000 bushels of barley per hour and with a storage capacity of 3.4 million bushels (170 million pounds). This facility is referred to as the Power Elevator. The facility includes two truck and one railcar unloading pits and loadout facilities for both trucks and railcars; conveyor systems; eight round storage bins; grain cleaning with two rotary drum scalpels; a scale system; and a system for capturing materials (fines) from the cleaning process and pollution control devices. One baghouse (Baghouse #01) controls emissions from unloading/incoming grain receiving and grain loadout, and another baghouse (Baghouse #02) controls emissions from grain cleaning (drum scalpels). Emission points at the Power Elevator include:

1. Truck unloading (2 pits – straight or hopper bottom trucks)
2. Railcar unloading
3. Headhouse and grain handling
4. Grain storage (8 bins)
5. Grain cleaning with drum scalpels
6. Truck loadout for shipping
7. Railcar loadout for shipping
8. Fines (materials from cleaning and captured by baghouses) bin
9. Fines loadout to truck for shipping
10. Unpaved haul roads

#### B. Current Permit Action

On March 23, 2022, the Montana Department of Environmental Quality (DEQ) received a letter from Molson Coors, requesting a De Minimis addition of a 20,000 bushel per hour drag conveyor, a correction to which processes are controlled by the 2 baghouses with reinstatement of the applicable Baghouse #02 emission limits, and a company name change from MillerCoors, LLC to Molson Coors Beverage Company, LLC.

## Section II: Conditions and Limitations

### A. Emission Limitations

1. Molson Coors shall install, operate, and maintain the following emission control equipment in accordance with manufacturer's instructions to provide maximum pollution control (ARM 17.8.752):
  - a. Partial enclosure for the truck and railcar unloading pits and fully enclosed handling equipment for all of the headhouse and grain handling operations, all vented to a baghouse (Baghouse #01).
  - b. A baghouse for the grain cleaning operations (Baghouse #02).
  - c. A Dust Control and Loading (DCL) discharge spout on the grain truck, fines truck, and railcar loadouts.
  - d. A baghouse for the fines, truck, and railcar loadouts (Baghouse #01).
2. Emissions from Baghouse #01 shall not exceed the following limits (ARM 17.8.752):
  - a. 0.45 pounds per hour (lb/hr) of particulate matter (PM)
  - b. 0.35 lb/hr of PM with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>)
  - c. 0% opacity
3. Emissions from Baghouse #2 shall not exceed the following limits (ARM 17.8.752):
  - a. 0.36 lb/hr of PM
  - b. 0.09 lb/hr of PM<sub>10</sub>
  - c. 0% opacity
4. Molson Coors 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. Molson Coors shall apply water or chemical dust suppressant as necessary to the haul road to minimize visible emissions (ARM 17.8.752).
6. Molson Coors shall post and enforce a 25 mile per hour (mph) speed limit on the haul road (ARM 17.8.749).
7. Molson Coors shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60, Subpart DD – Standards of Performance for Grain Elevators (ARM 17.8.340 and 40 CFR 60, Subpart DD).

## B. Testing Requirements

1. Within 60 days after achieving maximum production rate, but no later than 180 days from initial startup, an Environmental Protection Agency (EPA) Methods 1-5 and 9 performance test shall be performed on Baghouse #01 and Baghouse #02 to demonstrate initial compliance with their applicable emission limits. Each baghouse does not need to be tested simultaneously; however, the EPA Methods 1-5 and 9 tests must be conducted concurrently on a particular baghouse. Molson Coors may choose to infer compliance with PM<sub>10</sub> if the Method 5 result is less than the PM<sub>10</sub> limits or perform separate PM<sub>10</sub>-specific test; however, 40 CFR 60, Subpart DD requires EPA Methods 1-5 and 9 for demonstrating initial compliance with the emission standard (ARM 17.8.105; ARM 17.8.749; and 40 CFR 60, Subparts A and DD).
2. After the initial compliance demonstration described in Section II.B.1 has been satisfied, testing shall continue for each baghouse on an every two-year basis using the test methods described in Section II.B.1, or another schedule and/or methods as approved by DEQ (ARM 17.8.749).
3. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
4. The Department may require further testing (ARM 17.8.105).

## C. Operational Reporting Requirements

1. Molson Coors shall supply DEQ with annual production information for all emission points, as required by DEQ 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 DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ. 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. Molson Coors shall notify DEQ of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to DEQ, in writing, 10 days prior to startup 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 Molson Coors 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 DEQ, and must be submitted to DEQ upon request (ARM 17.8.749).

D. Notification

Molson Coors shall provide DEQ with written notification of the following dates within the specified time periods (ARM 17.8.749):

1. Commencement of construction of the facility within 30 days after commencement of construction.
2. Actual start-up date of the facility within 15 days after the actual start-up.
3. All compliance tests, as required by the Montana Source Test Protocol and Procedures Manual.

SECTION III: General Conditions

- A. Inspection – Molson Coors shall allow DEQ’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 (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Molson Coors fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Molson Coors of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by DEQ’s decision may request, within 15 days after DEQ 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 DEQ’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 DEQ’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, DEQ’s decision on the application is final 16 days after DEQ’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 DEQ at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Molson Coors 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  
Molson Coors Beverage Company USA, LLC – Power Elevator  
MAQP #4847-02

I. Introduction/Process Description

Molson Coors Beverage Company USA, LLC (Molson Coors) owns and operates a barley grain elevator. The facility is located in Section 26, Township 23 North, Range 1 West, in Teton County, and is known as the Power Elevator.

A. Permitted Equipment

Molson Coors operates a barley storage and elevator facility with the ability to ship and receive 20,000 bushels of barley per hour and with a storage capacity of 3.4 million bushels (170 million pounds). This facility is referred to as the Power Elevator. The facility includes two truck and one railcar unloading pits and loadout facilities for both trucks and railcars; conveyor systems; eight round storage bins; grain cleaning with two rotary drum scalpers; a scale system; and a system for capturing materials (fines) from the cleaning process and pollution control devices. The facility utilizes two baghouses to control emissions from all receiving and shipping/loading. Emission points at the Power Elevator include:

1. Truck unloading (2 pits – straight or hopper bottom trucks)
2. Railcar unloading
3. Headhouse and grain handling with drum scalpers
4. Grain storage (8 bins)
5. Grain cleaning with drum scalpers
6. Truck loadout for shipping
7. Railcar loadout for shipping
8. Fines (materials from cleaning and captured by baghouses) bin
9. Fines loadout to truck for shipping
10. Unpaved haul roads

B. Source Description

The Power Elevator has a receiving and shipping capacity of 20,000 bushels per hour and a storage capacity of 3.4 million bushels. Barley is received from farmers by truck or railcar via two enclosed truck receiving pits and one enclosed rail receiving pit. The pits are configured with a common receiving drag conveyor rated at 20,000 bushels per hour. Barley is stored in eight round bins. The facility is designed such that barley can be reclaimed from the bins at a rate of 20,000 bushels per hour. Grain is elevated and dropped into a scale system then loaded into either railcars or trucks for shipping. Materials (fines) from cleaning and fines captured in the baghouses are collected in a bin and loaded to trucks for removal.

All conveyors are enclosed. A dust collection system equipped with two baghouses is used to control emissions from the receiving pits, loadout spouts, conveyors, elevators, and reclaim system.



An unpaved haul road with a 25 mile per hour speed limit provides access to the elevator. Dust suppressant or water is applied as needed to the road to minimize dust.

### C. Permit History

The Department of Environmental Quality – Air Resources Management Bureau (DEQ) issued the MAQP #4847-00 to MillerCoors, Inc. on March 22, 2013.

On July 21, 2014, DEQ received a request from MillerCoors to update their permit to specify that the headhouse and grain handling source includes cleaning; to identify the use of two baghouses for general emissions control; and to remove the combination aspirator screen cleaner and dedicated baghouse.

The permit action amended the permit to include the requested changes and updated the permit to reflect current permit language, format, and rule references. **MAQP #4847-01** replaced MAQP #4847-00.

### D. Current Permit Action

On March 23, 2022, DEQ received a letter from Molson Coors, requesting a De Minimis addition of a 20,000 bushel per hour drag conveyor, a correction to which processes are controlled by the 2 baghouses with reinstatement of the applicable Baghouse #02 emission limits, and a company name change from MillerCoors, LLC. to Molson Coors Beverage Company, LLC. DEQ has updated the MAQP to reflect current naming conventions. **MAQP #4748-02** replaces MAQP #4748-01.

## 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 DEQ. Upon request, DEQ will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of DEQ, 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 DEQ.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, 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).

Molson Coors 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 Test Protocol and Procedures Manual is available from DEQ 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 that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>
11. ARM 17.8.230 Fluoride in Forage

Molson Coors 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 less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Molson Coors 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 Hydrocarbon Emissions--Petroleum Products. (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 and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Molson Coors 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 DD – Standards of Performance for Grain Elevators applies to each affected facility at any grain terminal elevator which has a permanent storage capacity of more than 2.5 million bushels. The Power Elevator would have a permanent storage capacity of 3.4 million bushels; therefore, this subpart applies.
- 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 DEQ. This permit action is considered an administrative action and does not require a permit application or application fee.
  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 DEQ by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by DEQ. 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. Molson Coors has a PTE greater than 25 TPY of particulate matter (PM), PM with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), and PM with an aerodynamic diameter of 2.5 or less (PM<sub>2.5</sub>); therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.  
(1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative amendment.  
(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. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative amendment.
  6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by DEQ 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 DEQ 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 Molson Coors 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 DEQ'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 DEQ.
- 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 tons per year 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. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
    - a. PTE > 100 TPY of any pollutant;
    - b. PTE > 10 TPY of any one hazardous air pollutant (HAP), PTE > 25 TPY of a combination of all HAPs, or lesser quantity as DEQ may establish by rule; or
    - c. PTE > 70 TPY of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
  2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4847-02 for Molson Coors, the following conclusions were made:
    - a. The facility's PTE is less than 100 TPY for any non-fugitive pollutant.
    - b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY for all HAPs.
    - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
    - d. This facility is subject to a current NSPS; 40 CFR 60, Subpart DD – Standards of Performance for Grain Elevators.
    - e. This facility is not subject to any current NESHAP.
    - f. This source is not a Title IV affected source.
    - g. This source is not a solid waste combustion unit.
    - h. This source is not an EPA designated Title V source.

Based on these facts, DEQ determined that Molson Coors 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, Molson Coors will be required to obtain a Title V Operating Permit.

### III. BACT Determination

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

The current permit action, in accordance with ARM 17.8.745, is considered an administrative action; therefore, a BACT determination is not required. Previously accepted and more stringent BACT limits associated with Baghouse #02 from MAQP #4847-00 were reinstated as part of clarifying which processes are controlled by which baghouse.

### IV. Emission Inventory

Maximum Process Rate:	20000	bushels/hr	(Maximum Process Rate)
	48	lb/bushel	(Applicant Info)
Maximum Hours of Operation:	480	tons/hr	
	8760	hrs/yr	(Continuous operation)
Maximum Process Rate:	4,204,800	TPY	

Emission Source	TPY (controlled emissions)							
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	VOC	SO <sub>2</sub>	CO <sub>2e</sub>
Truck and Railcar Receiving	0.98	0.73	0.21	--	--	--	--	--
Headhouse and Grain Handling	0.48	0.42	0.12	--	--	--	--	--
Grain Cleaning	1.58	0.41	0.07	--	--	--	--	--
Storage Bins	52.56	13.25	2.31	--	--	--	--	--
Shipping: Truck Loadout	0.48	0.36	0.10	--	--	--	--	--
Fines Bin	0.005	0.003	0.001	--	--	--	--	--
Fines Loadout	0.020	0.015	0.004	--	--	--	--	--
Haul Roads	86.04	23.23	2.32	--	--	--	--	--
<b>Total Emissions</b>	<b>142.14</b>	<b>38.40</b>	<b>5.15</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>

#### NOTES:

PM	particulate matter	CO	carbon monoxide
PM <sub>10</sub>	PM with an aerodynamic diameter of 10 microns or less	VOC	volatile organic compounds
PM <sub>2.5</sub>	PM with an aerodynamic diameter of 2.5 microns or less	SO <sub>2</sub>	sulfur dioxide
NO <sub>x</sub>	Oxides of nitrogen	CO <sub>2e</sub>	carbon dioxide equivalent

		TPY (controlled emissions)		
Emission Source		PM	PM <sub>10</sub>	PM <sub>2.5</sub>
Baghouse (BH)#01 and BH#02	Truck and Railcar Receiving	0.98	0.73	0.21
	Headhouse and Grain Handling	0.48	0.42	0.12
	Shipping: Truck Loadout	0.48	0.36	0.10
	Fines Bin	0.005	0.003	0.001
	Fines Loadout	0.020	0.015	0.004
	<b>BH#01</b>	<b>1.96</b>	<b>1.52</b>	<b>0.44</b>
	<b>BH #2 (Grain Cleaning)</b>	<b>1.58</b>	<b>0.41</b>	<b>0.07</b>

### **Incoming Grain Receiving – SCC 3-02-008-02**

Max Process Rate = 4,204,800 ton/yr (Applicant Info)

Hours of operation = 8760 hr/yr

#### **PM Emissions:**

Emission Factor = 0.18 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)

PM > 10 µm Control Efficiency = 99.9% (Applicant Info)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.18 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 378.43 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((378.43 \text{ ton/yr} - 124.04 \text{ ton/yr}) \times (1 - 99.9\%)) + (0.73 \text{ ton/yr}) = 0.98 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.059 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)

PM ≤ 10 and > 2.5 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.059 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 124.04 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((124.04 \text{ ton/yr} - 21.02 \text{ ton/yr}) \times (1 - 99.5\%)) + (0.21 \text{ ton/yr}) = 0.73 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.01 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)

PM ≤ 2.5 µm Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.01 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 21.02 \text{ ton/yr}$  (uncontrolled)

Calculation:  $(21.02 \text{ ton/yr}) \times (1 - 99\%) = 0.21 \text{ ton/yr}$  (controlled)

### **Headhouse & Grain Handling – SCC 3-02-005-30**

Max Process Rate = 4,204,800 ton/yr (Applicant Info)

Hours of operation = 8760 hr/yr

#### **PM Emissions:**

Emission Factor = 0.061 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)

PM > 10 µm Control Efficiency = 99.9% (Applicant Info)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.061 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 128.25 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((128.25 \text{ ton/yr} - 71.48 \text{ ton/yr}) \times (1 - 99.9\%)) + (0.42 \text{ ton/yr}) = 0.48 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.034 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)

PM ≤ 10 and > 2.5 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.034 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 71.48 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((71.48 \text{ ton/yr} - 12.19 \text{ ton/yr}) \times (1 - 99.5\%)) + (0.12 \text{ ton/yr}) = 0.42 \text{ ton/yr}$  (controlled)



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

Emission Factor = 0.0058 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)

PM ≤ 2.5 μm Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation: (4,204,800 ton/yr)\*(0.0058 lb/ton)\*(ton/2000 lb) = 12.19 ton/yr (uncontrolled)

Calculation: (12.19 ton/yr)\*(1 - 99%) = 0.12 ton/yr (controlled)

**Storage bin (vent) – SCC 3-02-005-40**

Max Process Rate = 4,204,800 ton/yr (Applicant Info)

Hours of operation = 8760 hr/yr

**PM Emissions:**

Emission Factor = 0.025 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)

Calculation: (4,204,800 ton/yr)\*(0.025 lb/ton)\*(ton/2000 lb) = 52.56 ton/yr (uncontrolled)

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

Emission Factor = 0.0063 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)

Calculation: (4,204,800 ton/yr)\*(0.0063 lb/ton)\*(ton/2000 lb) = 13.25 ton/yr (uncontrolled)

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

Emission Factor = 0.0011 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)

Calculation: (4,204,800 ton/yr)\*(0.0011 lb/ton)\*(ton/2000 lb) = 2.31 ton/yr (uncontrolled)

**Grain Cleaning – SCC 3-02-005-03**

Max Process Rate = 4,204,800 ton/yr (Applicant Info)

Hours of operation = 8760 hr/yr

PM>10 Emission Factor (uncontrolled):

Total PM Emission Factor = 0.075 lb/ton (AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)

PM>10 Emission Factor = PM<sub>Total</sub> - PM<sub>10</sub> = 0.075 - 0.019 = 0.056 lb/ton (cyclone controlled)

PM > 10 μm Cyclone Control Efficiency = 90% (EPA Fact Sheet EPA-452/F-03-005)

PM > 10 μm uncontrolled = (0.056) / (1 - 90/100) = 0.56 lb/ton

PM Total uncontrolled = (PM > 10 μm) + (PM ≤ 10 μm) = 0.60 lb/ton

PM<sub>10-2.5</sub> Emission Factor:

Emission Factor = 0.019 lb/ton (AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)

PM ≤ 10 and > 2.5 μm Emission Factor = PM<sub>10</sub> - PM<sub>2.5</sub> = 0.019 - 0.0032 = 0.0158 lb/ton (cyclone controlled)

PM ≤ 10 and > 2.5 μm Control Efficiency = 50% (AP-42, Appendix B.2, Table B.2-3, single cyclone)

PM ≤ 10 and > 2.5 μm uncontrolled = (0.0158) / (1 - 50/100) = 0.032 lb/ton

PM ≤ 10 uncontrolled = (PM ≤ 10 and > 2.5 μm) + (PM ≤ 2.5 μm) = 0.035 lb/ton

PM≤2.5 Emission Factor:

Emission Factor = 0.0032 lb/ton (AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)

PM ≤ 2.5 μm Control Efficiency = 10% (AP-42, Appendix B.2, Table B.2-3, single cyclone)

PM ≤ 2.5 uncontrolled = (0.0032) / (1 - 10/100) = 0.004 lb/ton

**PM Emissions:**

Emission Factor = 0.60 lb/ton (Uncontrolled, calculated above)

PM > 10 µm Control Efficiency = 99.9% (Applicant Info)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.60 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 1,251.26 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((1,251.26 \text{ ton/yr} - 73.91 \text{ ton/yr}) \times (1 - 99.9\%)) + (0.41 \text{ ton/yr}) = 1.58 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.035 lb/ton (Uncontrolled, calculated above)

PM ≤ 10 and > 2.5 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.035 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 73.91 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((73.91 \text{ ton/yr} - 7.48 \text{ ton/yr}) \times (1 - 99.5\%)) + (0.07 \text{ ton/yr}) = 0.41 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.004 lb/ton (Uncontrolled, calculated above)

PM ≤ 2.5 µm Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.004 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 7.48 \text{ ton/yr}$  (uncontrolled)

Calculation:  $(7.48 \text{ ton/yr}) \times (1 - 99\%) = 0.07 \text{ ton/yr}$  (controlled)

**Loadout – SCC 3-02-005-60**

Max Process Rate = 4,204,800 ton/yr (Applicant Info)

Hours of operation = 8760 hr/yr

**PM Emissions:**

Emission Factor = 0.086 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)

PM > 10 µm Control Efficiency = 99.9% (Applicant Info)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.086 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 180.81 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((180.81 \text{ ton/yr} - 60.97 \text{ ton/yr}) \times (1 - 99.9\%)) + (0.36 \text{ ton/yr}) = 0.48 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.029 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)

PM ≤ 10 and > 2.5 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.029 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 60.97 \text{ ton/yr}$  (uncontrolled)

Calculation:  $((60.97 \text{ ton/yr} - 10.30 \text{ ton/yr}) \times (1 - 99.5\%)) + (0.10 \text{ ton/yr}) = 0.36 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.0049 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)

PM ≤ 2.5 µm Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)

Calculation:  $(4,204,800 \text{ ton/yr}) \times (0.0049 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 10.30 \text{ ton/yr}$  (uncontrolled)

Calculation:  $(10.30 \text{ ton/yr}) \times (1 - 99\%) = 0.10 \text{ ton/yr}$  (controlled)

**Fines bin (vent) – SCC 3-02-005-40**

Max Process Rate = 177,135 ton/yr (Applicant Info)

Hours of operation = 8760 hr/yr

**PM Emissions:**

Emission Factor = 0.025 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)

PM > 10 µm Control Efficiency = 99.9% (Applicant Info)

Calculation:  $(177,135 \text{ ton/yr}) \cdot (0.025 \text{ lb/ton}) \cdot (\text{ton}/2000 \text{ lb}) = 2.21 \text{ ton/yr}$  (uncontrolled)  
Calculation:  $((2.21 \text{ ton/yr} - 0.56 \text{ ton/yr}) \cdot (1 - 99.9\%)) + (0.003 \text{ ton/yr}) = 0.005 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.0063 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)  
PM  $\leq 10$  and  $> 2.5 \mu\text{m}$  Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)  
Calculation:  $(177,135 \text{ ton/yr}) \cdot (0.0063 \text{ lb/ton}) \cdot (\text{ton}/2000 \text{ lb}) = 0.56 \text{ ton/yr}$  (uncontrolled)  
Calculation:  $((0.56 \text{ ton/yr} - 0.10 \text{ ton/yr}) \cdot (1 - 99.5\%)) + (0.001 \text{ ton/yr}) = 0.003 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.0011 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)  
PM  $\leq 2.5 \mu\text{m}$  Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)  
Calculation:  $(177,135 \text{ ton/yr}) \cdot (0.0011 \text{ lb/ton}) \cdot (\text{ton}/2000 \text{ lb}) = 0.10 \text{ ton/yr}$  (uncontrolled)  
Calculation:  $(0.10 \text{ ton/yr}) \cdot (1 - 99\%) = 0.001 \text{ ton/yr}$  (controlled)

### **Loadout – SCC 3-02-005-60**

Max Process Rate = 177,135 ton/yr (Applicant Info)  
Hours of operation = 8760 hr/yr

#### **PM Emissions:**

Emission Factor = 0.086 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)  
PM  $> 10 \mu\text{m}$  Control Efficiency = 99.9% (Applicant Info)  
Calculation:  $(177,135 \text{ ton/yr}) \cdot (0.086 \text{ lb/ton}) \cdot (\text{ton}/2000 \text{ lb}) = 7.62 \text{ ton/yr}$  (uncontrolled)  
Calculation:  $((7.62 \text{ ton/yr} - 2.57 \text{ ton/yr}) \cdot (1 - 99.9\%)) + (0.02 \text{ ton/yr}) = 0.02 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.029 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)  
PM  $\leq 10$  and  $> 2.5 \mu\text{m}$  Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)  
Calculation:  $(177,135 \text{ ton/yr}) \cdot (0.029 \text{ lb/ton}) \cdot (\text{ton}/2000 \text{ lb}) = 2.57 \text{ ton/yr}$  (uncontrolled)  
Calculation:  $((2.57 \text{ ton/yr} - 0.43 \text{ ton/yr}) \cdot (1 - 99.5\%)) + (0.004 \text{ ton/yr}) = 0.02 \text{ ton/yr}$  (controlled)

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

Emission Factor = 0.0049 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)  
PM  $\leq 2.5 \mu\text{m}$  Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)  
Calculation:  $(177,135 \text{ ton/yr}) \cdot (0.0049 \text{ lb/ton}) \cdot (\text{ton}/2000 \text{ lb}) = 0.43 \text{ ton/yr}$  (uncontrolled)  
Calculation:  $(0.43 \text{ ton/yr}) \cdot (1 - 99\%) = 0.004 \text{ ton/yr}$  (controlled)

### **Haul Roads**

Vehicle Miles Traveled (VMT) per Day = 790 VMT /day (Applicant info)  
VMT per hour =  $(790 \text{ VMT /day}) / (\text{day}/24 \text{ hrs}) = 32.92 \text{ VMT / hr}$   
Hours of Operation = 8,760 hrs/yr  
Precip days = 120 days/yr (from AP-42, Figure 13.2.2-1)

#### **PM Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.  
Emission Factor =  $k \cdot (s / 12)^a \cdot (W / 3)^b = 9.88 \text{ lb/VMT}$   
Where:  $k$  = constant = 4.9 lbs/VMT (Value for PM<sub>30</sub>/TSP, AP 42, Table 13.2.2-2, 11/06)

s = surface silt content = 6.4 % (Municipal Solid Waste Landfill, Table 13.2.2-3, 11/06)

W = mean vehicle weight = 37.88 tons (Applicant info)

a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 67.12% ((365 - 120)/365 natural mitigation)

Control Efficiency = 91% (Combined speed limit and dust suppression, WRAP Fugitive Dust Control Handbook)

Calculation: (8760 hrs/yr) \* (32.92 VMT / hr) \* (9.88 lb/VMT) \* (ton/2000 lb) = 1,424.18 TPY (Uncontrolled Emissions)

Calculation: (8760 hrs/yr) \* (32.92 VMT / hr) \* (9.88 lb/VMT) \* (ton/2000 lb) \* (67.12/100) = 955.96 TPY (Apply natural mitigation correction)

Calculation: (955.96 TPY) \* (1 - 91/100) = 86.04 TPY (Controlled Emissions)

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

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 2.67 \text{ lb/VMT}$

Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)

s = surface silt content = 6.4 % (Municipal Solid Waste Landfill, Table 13.2.2-3, 11/06)

W = mean vehicle weight = 37.88 tons (Applicant info)

a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 67.12% ((365 - 120)/365 natural mitigation)

Control Efficiency = 91% (Combined speed limit and dust suppression, WRAP Fugitive Dust Control Handbook)

Calculation: (8760 hrs/yr) \* (32.92 VMT / hr) \* (2.67 lb/VMT) \* (ton/2000 lb) = 384.47 TPY (Uncontrolled Emissions)

Calculation: (8760 hrs/yr) \* (32.92 VMT / hr) \* (2.67 lb/VMT) \* (ton/2000 lb) \* (67.12/100) = 258.07 TPY (Apply natural mitigation correction)

Calculation: (258.07 TPY) \* (1 - 91/100) = 23.23 TPY (Controlled Emissions)

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

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 0.27 \text{ lb/VMT}$

Where: k = constant = 0.15 lbs/VMT (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

s = surface silt content = 6.4 % (Municipal Solid Waste Landfill, Table 13.2.2-3, 11/06)

W = mean vehicle weight = 37.88 tons (Applicant info)

a = constant = 0.9 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 67.12% ((365 - 120)/365 natural mitigation)

Control Efficiency = 91% (Combined speed limit and dust suppression, WRAP Fugitive Dust Control Handbook)

Calculation: (8760 hrs/yr) \* (32.92 VMT / hr) \* (0.27 lb/VMT) \* (ton/2000 lb) = 38.45 TPY (Uncontrolled Emissions)

Calculation:  $(8760 \text{ hrs/yr}) * (32.92 \text{ VMT / hr}) * (0.27 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (67.12/100) = 25.81 \text{ TPY}$  (Apply natural mitigation correction)

Calculation:  $(25.81 \text{ TPY}) * (1 - 91/100) = 2.32 \text{ TPY}$  (Controlled Emissions)

#### V. Existing Air Quality

This facility would be located in an area that is currently designated as attainment/unclassifiable for all criteria pollutants.

#### VI. Ambient Air Impact Analysis

Emissions are considered minor and below de minimis thresholds, therefore, DEQ believes it will not cause or contribute to a violation of any ambient air quality standard.

#### VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, DEQ 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, DEQ determined there are no taking or damaging implications associated with this permit action.

## VIII. Environmental Assessment

An Environmental Assessment is not required for the current permitting action because the change is considered administrative.

Analysis Prepared By: John P. Proulx

Date: April 5, 2022