March 6, 2023

Brian Wanzenried
Viterra USA Grain, LLC.
1719 South 4th Rd
Huntley, MT 59307

Sent via email: brian.wanzenried@viterra.com

RE: Final Permit Issuance for MAQP #5241-01

Dear Mr. Wanzenried:

Montana Air Quality Permit (MAQP) #5241-01 is deemed final as of March 4, 2023, 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,

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

Emily Hultin
Air Quality Engineering Scientist
Air Quality Bureau
(406) 444-2049

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

Montana Air Quality Permit #5241-01

Viterra USA Grain, LLC.
Grain Elevator
West Half of Section 20, Township 2 North, Range 28 East Yellowstone County, Montana
1719 South 4th Road
Huntley, MT 59307

March 4, 2023

MONTANA AIR QUALITY PERMIT

Issued To: Viterra USA Grain, LLC
1719 South 4th Road
Huntley, MT 59307

MAQP: #5241-01
Administrative Amendment (AA) Request
Received: January 31, 2023
Department's Decision on AA: February 16, 2023
Permit Final: March 4, 2023

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Viterra USA Grain (Viterra), 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

The facility is located in west half of Section 20, Township 2 North, Range 28 East, Yellowstone County, Montana. The physical address is 1719 South 4th Road, Huntley, Montana 59037.

B. Current Permit Action

On January 31, 2023, DEQ received a request from Gavilon for an Administrative Amendment to MAQP #5241-00 to change the name of the facility from Gavilon Grain, LLC., to Viterra USA Grain, LLC.

Section II: Conditions and Limitations

A. Emission Limitations

1. Viterra shall install, operate, and maintain the following emission control equipment in accordance with the manufacturer's instructions to provide maximum pollution control (ARM 17.8.752):

    a. Truck Receiving Pits #1 (EU01) and #2 (EU02) designed with baffles and rated at 38,000 bu/hr, each.
    b. 2-sided and roofed enclosure at Truck Receiving Pits #1 (EU01) and #2 (EU02).
    c. A baghouse dust filter (or other control device with equivalent or better control efficiency) that controls emissions from both Truck Receiving Pits #1 (EU01) and #2 (EU02).
    d. A baghouse dust filter (or other control device with equivalent or better control efficiency) that controls emissions from both the enclosure for the grain elevator internal handling (EU04) which includes a series of conveyors (belt, drag and /or bucket) and the grain cleaner (EU17).
    e. Telescoping loadout spouts with socks, or a similar apparatus from the hopper discharge to the railcar to minimize open air grain drop distance for the Truck Loading Area (EU06), Truck Loading Side Tap 1 (EU08),

Truck Loading Side Tap 2 (EU8), Railcar Loading (EU09) and the Truck Baghouse Dust Loadout (EU16).

2. Viterra shall not receive more than 12,000,000 bushels of grain per calendar year (ARM 17.8.749).

3. Viterra shall handle no more than 1,500,000 bushels of grain per calendar year in one temporary storage pile (ARM 17.8.749).

4. Viterra shall fully enclose grain elevator internal handling equipment (EU04) including elevator legs and bucket conveyors, bin fill conveyors, belt conveyors and the distribution system and vent to the baghouse dust filter. The grain cleaner (EU17) shall also vent to the same baghouse dust filter. (ARM 17.8.749).

5. Viterra shall minimize the grain drop distance from the grain railcar bottoms (EU03) and from grain trucks (EU01 and EU02) to the receiving pit to minimize particulate emissions (ARM 17.8.752).

6. Viterra shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

7. Viterra 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).

8. Viterra shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area (EU10 & EU15) with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precaution limitation in Section II.A.7 (ARM 17.8.752).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

The Department of Environmental Quality (DEQ) may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Viterra shall supply DEQ with annual production information for all emission points, as required by DEQ in the annual emission inventory request. The request would 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).
Viterra shall submit the following information annually to DEQ by February 15th of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505):

a. annual grain throughput (bushels), and

b. annual temporary storage pile throughput (bushels).

2. Viterra 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 Viterra 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. These records may be stored at a location other than the plant site upon approval by DEQ (ARM 17.8.749).

4. Viterra shall document, by month, the total bushels of grain received by the facility. By the 25th day of each month, Viterra shall total the bushels of grain received for the previous month, and the total bushels of grain received since the beginning of the calendar year. The annual inventory of grain received by the facility would be used to verify compliance with the annual limitation in Section II.A.2. The monthly bushels of grain received, and the calendar year total of grain received shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. Viterra shall document the total monthly bushels of grain deposited in the temporary storage pile. By the 25th day of each month, Viterra shall calculate the bushels of grain deposited in the storage pile for the previous month.

   The information would be used to verify compliance with the limitation in Section II.A.3. The monthly bushels of grain deposited, and the calendar year total of grain deposited in the storage pile for the previous year shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

Viterra shall provide DEQ with written notification of the following dates within the specific time periods (ARM 17.8.749):

1. Within 15 days after the actual start-up date of the grain elevator, Viterra shall submit written notification to DEQ of the initial start-up date of the affected equipment.

2. All compliance source tests, as required by the Montana Source Test Protocol and Procedures Manual.

SECTION III: General Conditions

A. Inspection – Viterra 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 such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Viterra fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Viterra 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 affected in an adverse manner by DEQ's decision may request, within 15 days after DEQ 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 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 Viterra 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
Viterrra USA Grain, LLC
MAQP #5241-01

I. Introduction/Process Description

Viterra operates a grain handling facility with a single temporary flat grain storage pile on a site approximately 1 mile east of Huntley, Montana. The legal description of the facility is west half of Section 20, Township 2 North, Range 28 East, Yellowstone County, Montana. The physical address is 1719 South 4th Road, Huntley, Montana 59037.

A. Permitted Equipment

Viterra operates a truck and rail grain handling elevator and storage facility. The facility has a permanent grain storage bin capacity of approximately 750,000 bushels, 38,000 bushels per hour (bu/hr) receiving and shipping capacity. The facility anticipates an annual grain processing rate of no more than 12,000,000 bushels and a temporary grain storage pile that is to be emptied at least annually, if not more often. Emission sources located at this facility include, but are not limited to, the following:

- Two Grain Truck Receiving Pits (EU01 & EU02) – 38,000 bu/hr (each);
- One Railcar Receiving Pit (EU03) – 38,000 bu/hr;
- Internal Handling System, (a.k.a. a headhouse composed of conveyor and elevators) (EU04) – 80,000 bu/hr;
- Vents from Nine Storage Bins (EU05) – 80,000 bu/hr:
    - Four 174,000-bushel storage bins,
    - Four 10,500-bushel storage bins, and
    - One 12,000-bushel storage bin;
- One Truck Loading Area (EU06) - 20,000 bu/hr;
- Two Truck Loading Side Taps (EU07 & EU08) – 15,000 bu/hr (each);
- One Railcar Loadout (EU09) – 80,000 bu/hr;
- Unpaved Roads: Haul Roads (EU10) and Storage Pile Roads (EU15);
- One Temporary Storage Pile: Truck Unloading to Conveyor (EU11), Conveyor Dropping to Pile (EU12), Storage Pile Wind Erosion (EU13), Storage Pile Truck Loading (EU14) – 25,000 bu/hr, 3.1-acre pile of 1,500,000-bushel capacity;
- Truck Baghouse Dust Loadout (EU16) – 10,000 bu/hr; and
- Grain Cleaner (EU17) – 15,000 bu/hr.

B. Source Description

The proposed truck and rail grain handling facility is designed to receive grain from local farms for storage and cleaning until it is shipped to market. The annual throughput capacity of the facility is 12,000,000 bushels. Locally grown grains are hauled to the facility generally via truck, but the facility is also designed to accept grain from railcars. There are three grain receiving pits; two pits designed for trucks and the third for railcars.

Trucks delivering grain would discharge grain into one of the two truck receiving pits, equipped with baffles and located within a 2-sided and roofed enclosure. The truck receiving pits are controlled with a single baghouse. The single railcar receiving pit is only

expected to be used when an off-specification railcar needs to be unloaded. The railcar receiving pit does not contain baffles or implement other particulate control measures. All transferring of grain is done using enclosed conveyors from the point of the receiving pits to the storage bins. The main elevator legs and conveyor system are fully enclosed to minimize the release of dust to the atmosphere. Grain can be processed for cleaning as necessary before shipping. Grain is most often shipped by railcar and occasionally by truck.

C. Permit History

On May 28, 2020 Gavilon Grain, LLC (Gavilon) was issued **MAQP #5241-00** to construct and operate a grain elevator facility which would have a permanent grain storage capacity of 750,000 bushels and a receiving and load-out capacity each of 38,000 bushels per hour (bu/hr). The permanent grain storage capacity would be composed of four 174,000-bushel bins, four 10,500-bushel bins, one 12,000-bushel bin, and a single 1.5 million-bushel temporary ground storage pile. The facility would have two truck receiving pits, one railcar receiving pit, one grain cleaning operation, one railcar loadout station, one truck loadout station that including two side taps loadouts, one truck loading of baghouse dust, and loading and unloading of grain to the storage pile. The facility would also have several unpaved haul roads leading to the grain elevators and the temporary storage pile.

D. Current Permit Action

On January 31, 2023, DEQ received a request from Gavilon for an Administrative Amendment to MAQP #5241-00 to change the name of the facility from Gavilon Grain, LLC., to Viterra USA Grain, LLC. **MAQP #5241-01** replaces MAQP #5241-00.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (DEQ). Upon request, DEQ would 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).

Viterra 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. In (2) of this rule, DEQ 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 (1) of this rule, 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. As described in (2) of this rule, 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
2. ARM 17.8.221 Ambient Air Quality Standard for Visibility
3. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Viterra 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. In (1) of this rule, it 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. As described in (2) of this rule, Viterra 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. In (3) of this rule, 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.

8. 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). Subpart DD, Standards of Performance for Grain Elevators, indicates that grain terminal elevators that have a permanent storage capacity of more than 2.5 million U.S. bushels are subject to the requires of this subpart. Viterra does not have a permanent storage capacity of 2.5 million bushels or more; therefore, NSPS Subpart DD does not apply to this facility.

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. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.

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. DEQ 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 of any pollutant. Viterra has a PTE greater than 25 tons per year of particulate matter (PM); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. In (1) of this rule, it 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 action because the permit change is considered an administrative amendment. In (7) of this rule, it 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 permit change.

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 Viterra 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 17.8.760 Additional Review of Permit Applications. This rule describes DEQ's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. 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.

13. 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).

14. 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.

15. 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.

16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to DEQ for incineration facilities subject to 75-2-215, Montana Code Annotated (MCA).

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 9 – Permit Requirements for Major Stationary Sources or Major Modifications Locating Within Nonattainment Areas, including, but not limited to:

This facility is not a major source nor considered a major modification.

H. ARM 17.8, Subchapter 10 – Preconstruction Permit Requirements for Major Stationary Sources of Modifications Located Within Attainment or Unclassified Areas, including, but not limited to:

ARM 17.8.1004 When Air Quality Preconstruction Permit Required. This current permit action does not constitute a major modification. Therefore, the requirements of this subchapter do not apply.

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as DEQ may establish by rule; or

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} 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 #5241-01 for Viterra, 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 for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NSPS.

   e. This facility is not subject to any current NESHAP.

f. This source is not a Title IV affected source, or a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

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

III. BACT Determination

A best available control technology (BACT) determination is required for each new or modified source. Viterra shall install on the new or modified source the maximum air pollution control technology which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was not required for the current permit action because the current permit action is considered an administrative permit action.

IV. Emission Inventory

Facility-wide Emissions (tons)

Emitting Unit ID	Emitting Unit	PM	PM_{10}	$PM_{2.5}$
EU01	Truck Receiving Pit 1	0.32	0.11	0.02
EU02	Truck Receiving Pit 2			
EU03	Railcar Receiving Pit	5.76	1.40	0.23
EU04	Internal Grain Handling	0.11	0.06	0.01
EU05	Storage Bin Vents	4.50	1.13	0.20
EU06	Truck Loading Area	15.48	5.22	0.88
EU07	Truck Loading Side Tap 1			
EU08	Truck Loading Side tap 2			
EU09	Rail Loading			
EU14	Storage Pile Truck Loading			
EU16	Truck Loading (Dust Loadout)			
EU10	Haul Roads (Unpaved)	22.0	5.9	0.6
EU15	Storage Pile Unpaved Haul Roads			
EU11	Storage Pile Truck Receiving	4.05	1.33	0.23
EU12	Storage Pile Adding	0.0165	0.0078	0.0012
EU13	Storage Pile Wind Erosion	0.034	0.017	0.006

EU17	Grain Cleaner	0.45	0.07	0.01
Total		**52.7**	**15.3**	**2.2**

Footnotes:

[a]*Emissions from unpaved roadways are included as a worst-case scenario. These fugitive emissions are defined as secondary emission and therefore do not contribute to PTE aggregation.*

-The emission inventory reflects enforceable limits on production for the facility.

Truck Receiving Pits (EU01 and EU02)
Incoming Grain Receiving – SCC 3-02-008-02

Max Process Rate = 12,000,000 bu/yr (Applicant Info)	12,000,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 360,000 tons/yr	360,000	tons/yr	

PM Emissions:

Emission Factor = 0.18 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.18	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM Control Efficiency = 99% (Applicant Info- Baghouse)	99	%	(Applicant Info- Baghouse)
Calculation: (360,000 tons/yr)*(0.18 lb/ton)*(ton/2000 lb) = 32.40 ton/yr (uncontrolled)	32.40	ton/yr	(uncontrolled)
Calculation: ((32.40 ton/yr))*(1 - 99%) = 0.32 ton/yr (Baghouse emissions)	**0.32**	ton/yr	(Baghouse emissions)

PM_{10} Emissions:

Emission Factor = 0.059 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.059	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM10 Control Efficiency = 99% (Applicant Info- Baghouse)	99	%	(Applicant Info- Baghouse)
Calculation: (12,000,000 bu/yr)*(0.059 lb/ton)*(ton/2000 lb) = 10.62 ton/yr (uncontrolled)	10.62	ton/yr	(uncontrolled)
Calculation: ((10.62 ton/yr ton/yr)*(1 - 99%)) = 0.11 ton/yr (Baghouse emissions)	**0.11**	ton/yr	(Baghouse emissions)

$PM_{2.5}$ Emissions:

Emission Factor = 0.01 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.01	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM2.5 Control Efficiency = 99% (Applicant Info- Baghouse)	99	%	(Applicant Info- Baghouse)

Calculation: (360,000 bu/yr)*(0.01 lb/ton)*(ton/2000 lb) = 1.80 ton/yr (uncontrolled)	1.80	ton/yr	(uncontrolled)
Calculation: (1.80 ton/yr)*(1 - 99%) = 0.02 ton/yr (Baghouse emissions)	**0.02**	ton/yr	(Baghouse emissions)

Railcar Receiving Pit (EU03)

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

Max Process Rate = 12,000,000 bu/yr (Applicant Info)	12,000,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 360,000 tons/yr	360,000	tons/yr	

PM Emissions:

Emission Factor = 0.032 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.032	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM Control Efficiency = 0% No controls proposed	0	%	No controls proposed
Calculation: (360,000 bu/yr)*(0.032 lb/ton)*(ton/2000 lb) = 5.76 ton/yr (uncontrolled)	5.76	ton/yr	(uncontrolled)
Calculation: ((5.76 ton/yr ton/yr))*(1 - 0%) = 5.76 ton/yr (controlled)	**5.76**	ton/yr	(controlled)

PM_{10} Emissions:

Emission Factor = 0.0078 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.0078	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM Control Efficiency = 0% No controls proposed	0	%	No controls proposed
Calculation: (12,000,000 bu/yr)*(0.0078 lb/ton)*(ton/2000 lb) = 1.40 ton/yr (uncontrolled)	1.40	ton/yr	(uncontrolled)
Calculation: ((1.40 ton/yr - 0.23 ton/yr)*(1 - 0%)) + (0.23 ton/yr) = 1.40 ton/yr (controlled)	**1.40**	ton/yr	(controlled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.0013 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.0013	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM Control Efficiency = 0% No controls proposed	0	%	No controls proposed

Calculation: (12,000,000 bu/yr)*(0.0013 lb/ton)*(ton/2000 lb) = 0.23 ton/yr (uncontrolled)	0.23	ton/yr	(uncontrolled)
Calculation: (0.23 ton/yr)*(1 - 0%) = 0.23 ton/yr (controlled)	**0.23**	ton/yr	(controlled)

Internal Handling (EU04)

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

Max Process Rate = 12,000,000 bu/yr (Applicant Info)	12,000,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 360,000 tons/yr	360,000	tons/yr	

PM Emissions:

Emission Factor = 0.061 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)	0.061	lb/ton	(AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)
PM Control Efficiency = 99.00% Baghouse (99%)	99.00	%	Baghouse (99%)
Calculation: (360,000 bu/yr)*(0.061 lb/ton)*(ton/2000 lb) = 10.98 ton/yr (uncontrolled)	10.98	ton/yr	(uncontrolled)
Calculation: (10.98 ton/yr)*(1 - 99%) = 0.11 ton/yr (controlled)	**0.11**	ton/yr	(controlled)

PM_{10} Emissions:

Emission Factor = 0.034 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)	0.034	lb/ton	(AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)
PM10 Control Efficiency = 99% Baghouse (99%)	99.00	%	Baghouse (99%)
Calculation: (360,000 bu/yr)*(0.034 lb/ton)*(ton/2000 lb) = 6.12 ton/yr (uncontrolled)	6.12	ton/yr	(uncontrolled)
Calculation: (6.12 ton/yr)*(1 - 99%) = 0.06 ton/yr (controlled)	**0.06**	ton/yr	(controlled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.0058 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)	0.0058	lb/ton	(AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03)
PM2.5 Control Efficiency = 99% Baghouse (99%)	99.00	%	Baghouse (99%)

Calculation: (360,000 bu/yr)*(0.0058 lb/ton)*(ton/2000 lb) = 1.04 ton/yr (uncontrolled)	1.04	ton/yr	(uncontrolled)
Calculation: (1.04 ton/yr)*(1 - 99%) = 0.01 ton/yr (controlled)	**0.01**	ton/yr	(controlled)

Storage Bin Vents (EU05)

Storage Bin (vent) – SCC 3-02-005-40

Max Process Rate = 12,000,000 bu/yr (Applicant Info)	12,000,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 360,000 tons/yr	360,000	tons/yr	

PM Emissions:

Emission Factor = 0.025 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	0.025	lb/ton	(AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)
Calculation: (12,000,000 bu/yr)*(0.025 lb/ton)*(ton/2000 lb) = 4.50 ton/yr (uncontrolled)	**4.50**	ton/yr	(uncontrolled)

PM_{10} Emissions:

Emission Factor = 0.0063 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	0.0063	lb/ton	(AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)
Calculation: (12,000,000 bu/yr)*(0.0063 lb/ton)*(ton/2000 lb) = 1.13 ton/yr (uncontrolled)	**1.13**	ton/yr	(uncontrolled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.0011 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	0.0011	lb/ton	(AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)
Calculation: (12,000,000 bu/yr)*(0.0011 lb/ton)*(ton/2000 lb) = 0.20 ton/yr (uncontrolled)	**0.20**	ton/yr	(uncontrolled)

Truck Shipping Area 1 (EU06)

Truck Shipping Side Tap 1 (EU07)

Truck Shipping Side Tap 2 (EU08)

Railcar Shipping (EU09)

Truck Filled from Storage Pile (EU14)
Truck Baghouse Dust Loadout (EU16)
Loadout – SCC 3-02-005-60

Max Process Rate = 12,000,000 bu/yr (Applicant Info)	12,000,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 360,000 tons/yr	360,000	tons/yr	

PM Emissions:

Emission Factor = 0.086 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	0.086	lb/ton	(AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)
PM Control Efficiency = 0% (Applicant Info - No Controls)	0	%	(Applicant Info - No Controls)
Calculation: (360,000 bu/yr)*(0.086 lb/ton)*(ton/2000 lb) = 15.48 ton/yr (uncontrolled)	**15.48**	ton/yr	(uncontrolled)

PM_{10} Emissions:

Emission Factor = 0.029 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	0.029	lb/ton	(AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)
PM10 Control Efficiency = 0% (Applicant Info - No Controls)	0	%	(Applicant Info - No Controls)
Calculation: (360,000 bu/yr)*(0.029 lb/ton)*(ton/2000 lb) = 5.22 ton/yr (uncontrolled)	**5.22**	ton/yr	(uncontrolled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.0049 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	0.0049	lb/ton	(AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)
PM ≤ 2.5 μm Control Efficiency = 0% (Applicant Info - No Controls)	0	%	(Applicant Info - No Controls)
Calculation: (360,000 bu/yr)*(0.0049 lb/ton)*(ton/2000 lb) = 0.88 ton/yr (uncontrolled)	**0.88**	ton/yr	(uncontrolled)

Unpaved Roadways (Haul Roads) - Secondary Emissions
Haul Roads (EU10) and Storage Pile Haul Roads (EU15)

Vehicle Miles Travelled (VMT):	6818	Miles/Year
Mean Vehicle Weight:	27.5	Tons (Weight Empty/Full)

Particulate Emissions (controlled):

Emission Factor EF = k(s/12)^a * (W/3)^b * [(365-P)/365]

where: [AP-42 13.2.2.2, 11/06]

EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)

k, Empirical Constant PM =	4.9	[AP-42 Table 13.2.2-2, 11/06]
k, Empirical Constant PM10=	1.5	[AP-42 Table 13.2.2-2, 11/06]
k, Empirical Constant PM2.5 =	0.15	[AP-42 Table 13.2.2-2, 11/06]
s, Surface Material Silt Content (%) =	6.4	[AP-42 Table 13.2.2-1, 11/06, Viterra selected value for MSW landfills]
W, Mean Vehicle Weight (tons) =	27.5	[Viterra Estimate]
a, Empirical Constant PM =	0.7	[AP-42 Table 13.2.2-2, 11/06]
a, Empirical Constant PM10 /PM2.5 =	0.9	[AP-42 Table 13.2.2-2, 11/06]
b, Empirical Constant PM - PM2.5 =	0.45	[AP-42 Table 13.2.2-2, 11/06]
p, Days w/ Precipitation (≤ 0.01")	90	[AP-42 Figure 13.2.2-1, 11/06]

PM Emissions (controlled):

Emission Factor	EF = 4.9 * (6.4/12)^0.7 * (27.5/3)^0.45 * [(365 - 90)/365] =	6.444	lbs/VMT
Calculations	(6.444 lbs/VMT) * (6,818 miles/year) *(0.0005 tons/lb) =	**22.0**	**TPY**

PM10 Emissions (controlled):

Emission Factor	EF = 1.5 * (6.4/12)^0.9 * (27.5/3)^0.45 * [(365-90)/365] =	1.740	lbs/VMT
Calculations	(1.740 lbs/VMT) * (6,818 miles/year)*(0.0005 tons/lb) =	**5.9**	**TPY**

PM2.5 Emissions (controlled):

Emission Factor	EF = 0.15 * (6.4/12)^0.9 * (27.5/3)^0.45 * ((365-90)/365] =	0.174	lbs/VMT
Calculations	(0.174 lbs/VMT) * (6,818 miles/year) *(0.0005 tons/lb) =	**0.6**	**TPY**

Storage Pile Truck Receiving (Unloading) (EU11)

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

Max Process Rate = 1,500,000 bu/yr (Applicant Info)	1,500,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 45,000 tons/yr	45,000	tons/yr	

PM Emissions:

Emission Factor = 0.18 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.18	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM Control Efficiency = 0% No Controls	0	%	No Controls
Calculation: (45,000 tons/yr)*(0.18 lb/ton)*(ton/2000 lb) = 4.05 ton/yr (uncontrolled)	**4.05**	ton/yr	(uncontrolled)
Calculation: ((4.05 ton/yr))*(1 - 0%) = 4.05 ton/yr (controlled)	**4.05**	ton/yr	(controlled)

PM_{10} Emissions:

Emission Factor = 0.059 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.059	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM10 Control Efficiency = 0% No Controls	0	%	No Controls
Calculation: (1,500,000 bu/yr)*(0.059 lb/ton)*(ton/2000 lb) = 1.33 ton/yr (uncontrolled)	**1.33**	ton/yr	(uncontrolled)
Calculation: ((1.33 ton/yr ton/yr)*(1 - 0%)) = 1.33 ton/yr (controlled)	**1.33**	ton/yr	(controlled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.01 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)	0.01	lb/ton	(AP-42 Table 9.9.1-1, Grain Receiving Straight Truck, 3/03)
PM2.5 Control Efficiency = 0% No Controls	0	%	No Controls

Calculation: (45,000 bu/yr)*(0.01 lb/ton)*(ton/2000 lb) = 0.23 ton/yr (uncontrolled)	**0.23**	ton/yr	(uncontrolled)
Calculation: (0.23 ton/yr)*(1 - 0%) = 0.23 ton/yr (controlled)	**0.23**	ton/yr	(controlled)

Unloading to Storage Pile and Loading Trucks from Storage Pile (EU12)

Storage Pile Throughput =	45,000	tons grain/yr	(Applicant Info)
Processing both Unloading and Loading Doubles the Grain Handlings Throughput =	90,000	total tons/yr	

Emission Factor (lb/ton) EF = k(0.0032) * (U/5)^1.3 / (M/2)^1.4 [AP-42, 13.2.4-3, 10/06]

where:

k, particle size multiplier, PM =	0.74	[AP-42, Section 13, 11/06, Aerodynamic Particle Size Multiplier]
k, particle size multiplier, PM10 =	0.35	[AP-42, Section 13, 11/06, Aerodynamic Particle Size Multiplier]
k, particle size multiplier, PM2.5 =	0.053	[AP-42, Section 13, 11/06, Aerodynamic Particle Size Multiplier]
U, mean wind speed (mph) =	10.8	[Applicant provided, based on Billings/Logan Int'l Airport data from 1984-1992]
M, material moisture content (%) =	15.50	[Applicant provided, based on corn value in the Office of Technology Assessment's "Technology and Policy for Suppressing Grain Dust Explosions in Storage Facilities, September 1995]
PM Emission Factor (lb/ton) =	0.00037	lb/ton
PM10 Emission Factor (lb/ton) =	0.00017	lb/ton
PM2.5 Emission Factor (lb/ton) =	0.000026	lb/ton

PM Emissions:

(90,000 total tons/yr)*(0.00037 lb/ton)*(ton/2000 lb) =	**0.0165**	**TPY**	(uncontrolled)

PM10 Emissions:

(90,000 total tons/yr)*(0.00017 lb/ton)*(ton/2000 lb) =	**0.0078**	**TPY**	(uncontrolled)

PM2.5 Emissions:

(90,000 total tons/yr)*(0.000026 lb/ton)*(ton/2000 lb) = **0.0012** **TPY** (uncontrolled)

Storage Pile Erosion (EU13)

Storage Pile Size = 3.1 acres (Applicant Info)	3.1	acres	(Applicant Info)
Days Exposed = 365 days (Applicant Info)	365	days	(Applicant Info)
Throughput = 1 tons/yr	1	tons/yr	

PM Emissions:

Emission Factor = 0.06 lb/day/acre (Applicant Info)	0.06	lb/day/acre	(Applicant Info)
Calculation: (3.1 acres)*(365 days)*(0.06 lb/day/acre)*(ton/2000 lb) =	**0.034**	**TPY**	(uncontrolled)

PM_{10} Emissions:

Emission Factor = 0.03 lb/day/acre (Applicant Info)	0.03	lb/day/acre	(Applicant Info)
Calculation: (3.1 acres)*(365 days)*(0.03 lb/day/acre)*(ton/2000 lb) =	**0.017**	**TPY**	(uncontrolled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.01 lb/day/acre (Applicant Info)	0.01	lb/day/acre	(Applicant Info)
PM10 Control Efficiency = 0% (no controls)	0	%	(no controls)
Calculation: (3.1 acres)*(365 days)*(0.01 lb/day/acre)*(ton/2000 lb) =	**0.006**	**TYP**	(uncontrolled)

Grain Cleaner (EU17)

Grain Cleaning – SCC 3-02-005-03

Max Process Rate = 12,000,000 bu/yr (Applicant Info)	12,000,000	bu/yr	(Applicant Info)
Density = 60 lb/bu (highest density grain value from AP-42, Appendix A)	60	lb/bu	(highest density grain value from AP-42, Appendix A)
Throughput = 360,000 tons/yr	360,000	tons/yr	

PM Emissions:

Total PM Emission Factor = 0.075 lb/ton (AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)	0.075	lb/ton	(AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)
PM Cyclone Control Efficiency = 85% (AP-42, Appendix B, Table B.2-3, centrifugal collector - med-efficiency)	85	%	(SOURCE)
PM Emission Factor (uncontrolled) = (0.075) / (1 - 85/100) = 0.5 lb/ton	0.5	lb/ton	(uncontrolled)
PM Fabric Filter Efficiency = 99.5% (AP-42, Appendix B, Table B.2-3, fabric filter - med temp.)	99.5	%	(AP-42, Appendix B, Table B.2-3, fabric filter - med temp.)

Calculation: (360,000 tons/yr)*(0.50 lb/ton)*(ton/2000 lb) = 90.00 ton/yr (uncontrolled)	90.00	ton/yr	(uncontrolled)
Calculation: (90.00 ton/yr)*(1 - 99.5%) = 0.45 ton/yr (controlled)	**0.45**	ton/yr	(controlled)

PM_{10} Emissions:

Emission Factor = 0.019 lb/ton (AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)	0.019	lb/ton	(AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)
PM10 Cyclone Control Efficiency = 75% (AP-42, Appendix B, Table B.2-3, centrifugal collector - med-efficiency)	75	%	(SOURCE)
PM10 Emission Factor (uncontrolled) = (0.019) / (1 - 75/100) = 0.076 lb/ton	0.076	lb/ton	(uncontrolled)
PM10 Fabric Filter Efficiency = 99.5% (AP-42, Appendix B, Table B.2-3, fabric filter - med temp.)	99.5	%	(AP-42, Appendix B, Table B.2-3, fabric filter - med temp.)
Calculation: (360,000 tons/yr)*(0.076 lb/ton)*(ton/2000 lb) = 13.68 ton/yr (uncontrolled)	13.68	ton/yr	(uncontrolled)
Calculation: (13.68 ton/yr)*(1 - 99.5%) = 0.07 ton/yr (controlled)	**0.07**	ton/yr	(controlled)

$PM_{2.5}$ Emissions:

Emission Factor = 0.0032 lb/ton (AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)	0.0032	lb/ton	(AP-42 Table 9.9.1-1, grain cleaning (cyclone controlled), 3/03)
PM2.5 Cyclone Control Efficiency = 50% (AP-42, Appendix B, Table B.2-3, centrifugal collector - med-efficiency)	50	%	(SOURCE)
PM2.5 Emission Factor (uncontrolled) = (0.0032) / (1 - 50/100) = 0.0064 lb/ton	0.0064	lb/ton	(uncontrolled)
PM2.5 Fabric Filter Efficiency = 99% (AP-42, Appendix B, Table B.2-3, fabric filter - med temp.)	99	%	(AP-42, Appendix B, Table B.2-3, fabric filter - med temp.)
Calculation: (360,000 tons/yr)*(0.0064 lb/ton)*(ton/2000 lb) = 1.15 ton/yr (uncontrolled)	1.15	ton/yr	(uncontrolled)
Calculation: (1.15 ton/yr)*(1 - 99%) = 0.01 ton/yr (controlled)	**0.01**	ton/yr	(controlled)

V. Existing Air Quality

Viterra's proposed facility would operate 1 mile east of Huntley, Montana in the west half of Section 20, Township 2 North, Range 28 East, in Yellowstone County. The facility would

only have particulate matter emissions and this area is classified as attainment or unclassified for particulate matter. The limitations and conditions in MAQP #5241-01 ensure the facility would not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS).

VI. Air Quality Impacts

The Department determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the Department believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

DEQ determined that based on the proposed emission sources and controls, the impacts from this permitting action would be minor. DEQ believes it would not cause or contribute to a violation of any ambient air quality standard.

VIII. 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.

IX. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility as it is an administrative amendment and therefore an environmental assessment was not required.

Analysis Prepared By: Emily Hultin
Date: February 9, 2023