

November 22, 2024

Brienne Davenport
Viterra USA Grain, LLC
Huntley Facility
1653 South 4th Road
Huntley, Montana 59037

Sent via email: brienne.davenport@viterra.com

RE: Final Permit Issuance for MAQP #5241-02

Dear Brienne Davenport:

Montana Air Quality Permit (MAQP) #5241-02 is deemed final as of November 22, 2024, by DEQ. This permit is for Viterra USA Grain, LLC, a grain handling facility. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,



Eric Merchant
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 #5241-02

Viterra USA Grain, LLC
Huntley Facility
Section 20, Township 2 North, Range 28 East
1719 South 4th Road, Huntley, Montana 59037

November 22, 2024



MONTANA AIR QUALITY PERMIT

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

MAQP: #5241-02
Application Complete Date: 09/11/2024
Preliminary Decision: 10/15/2024
Department Decision: 11/06/2024
Permit Final: 11/22/2024

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Viterra USA Grain, LLC (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 September 11, 2024, the Montana Department of Environmental Quality (DEQ) received a request from Viterra to increase the allowable total grain storage capacity and associated allowable area of the ground covered by the permitted temporary storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst-case annual operating scenarios for the engine rental unit utilized by Viterra at the Huntley facility.

Further, in July 2023, DEQ received a request from Viterra for an Administrative Amendment (AA), which at the time was incorrectly determined to be a de minimis action pursuant to ARM 17.8.745. This request allowed for the increase in allowable grain receipts from 12 million bushels per year, to 12,875,000 bushels per year; increased the allowable handling capacity of bushels of grain per calendar year via one temporary storage pile from 1,500,000 bushels of grain to 2,500,000 bushels of grain per calendar year in two temporary storage piles; and limited operation of the portable generator engine (EU17) to no more than 8,000 hours per calendar year. Therefore, under the current permit action, these actions are analyzed and appropriately incorporated into the permit along with the requested actions received on September 11, 2024.

Section II: Conditions and Limitations

A. Emissions 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 12,875,000 bushels of grain per calendar year (ARM 17.8.749).
3. Viterra shall handle no more than 4,000,000 bushels of grain per calendar year in two temporary storage piles (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).

C. The Department of Environmental Quality (DEQ) may require testing (ARM 17.8.105). 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 specified time periods (ARM 17.8.749):

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

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
Viterra USA Grain, LLC
MAQP #5241-02

I. Introduction/Process Description

Viterra operates a grain handling facility with two temporary flat grain storage piles 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 12,875,000 bushels and two temporary grain storage piles to be emptied at least annually. 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);
- Two Temporary Storage Piles: Truck Unloading to Conveyor (EU11), Conveyor Dropping to Pile (EU12), Storage Pile Wind Erosion (EU13), Storage Pile Truck Loading (EU14) – 25,000 bu/hr, - total acre pile of 7.10 acres with 4,000,000-bushel capacity;
- Truck Baghouse Dust Loadout (EU16) – 10,000 bu/hr; and
- Grain Cleaner (EU17) – 15,000 bu/hr.
- Portable Generator Engine (EU18) – 250 hp

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 allowable annual throughput capacity of the facility is 12,875,000 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.

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** replaced MAQP #5241-00.

D. Current Permit Action

On September 11, 2024, the Montana Department of Environmental Quality (DEQ) received a request from Viterra to increase the allowable total grain storage capacity and associated allowable area of the ground covered by the permitted temporary storage piles; increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760 (unlimited); and account for worst-case annual operating scenarios for the engine rental unit utilized by Viterra at the Huntley facility.

Further, in July 2023, DEQ received a request from Viterra for an Administrative

Amendment (AA), which at the time was incorrectly determined to be a de minimis action pursuant to ARM 17.8.745. This request allowed for the increase in allowable grain receipts from 12 million bushels per year, to 12,875,000 bushels per year; increased the allowable handling capacity of bushels of grain per calendar year via one temporary storage pile from 1,500,000 bushels of grain to 2,500,000 bushels of grain per calendar year in two temporary storage piles; and limited operation of the portable generator engine (EU17) to no more than 8,000 hours per calendar year. Therefore, under the current permit action, these actions are analyzed and appropriately incorporated into the permit along with the requested actions received on September 11, 2024. **MAQP #5241-02** replaces MAQP #5241-01.

E. Response to Public Comments

No public comments were received.

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 PM₁₀

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.

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). 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. Viterra submitted the appropriate permit application fee for the current permit action
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to 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) and NO_x; 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. Viterra submitted the required permit application for the current permit action. 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. Viterra submitted an affidavit of publication of public notice for the September 6, 2024, issue of the *Yellowstone County News*, a newspaper of general circulation in the town of Huntley, Montana, in Yellowstone County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by 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:

1. 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 (PM₁₀) in a serious PM₁₀ 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 #5241-02 for Viterra, the following conclusions were made:
 - d. The facility's PTE is less than 100 tons/year for any pollutant.
 - e. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.

- f. This source is not located in a serious PM₁₀ nonattainment area.
- g. This facility is not subject to any current NSPS.
- h. This facility is not subject to any current NESHAP.
- i. This source is not a Title IV affected source, or a solid waste combustion unit.
- j. 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 submitted by Viterra in permit application #5241-02, addressing some available methods of controlling PM/PM₁₀/PM_{2.5} from the storage pile operations. DEQ reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by DEQ in order to make the following BACT determination.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

This project does not impact the BACT analysis that Viterra completed as part of the original permit application submitted for Viterra - Huntley in 2020.

BACT Analysis – PM/PM₁₀/PM_{2.5}

Step 1 - Identify All Available PM/PM₁₀/PM_{2.5} Control Technologies

The PM/PM₁₀/PM_{2.5} control technologies evaluated in this study include:

- Mineral oil as dust suppressant

Step 2 - Eliminate Technically Infeasible PM/PM₁₀/PM_{2.5} Control Options

The only technically feasible add-on control and process improvement for storage pile operations (EU-11, EU-12, EU-13, and EU-14) is the use of mineral oil as dust suppressant, with an assigned PM/PM₁₀/PM_{2.5} control efficiency of 60 percent. Based on cost effectiveness, mineral oil control can be eliminated as an

option for BACT.

The estimated cost to install mineral oil application equipment is approximately \$40,000. Assuming a 7% discount rate and a 20-year lifespan for the equipment, the annualized equipment cost becomes \$3,784 per year. Additionally, the cost of the oil itself is approximately \$5.00 per gallon and is applied at a rate of 1.7 gallons per 1000 bushels. At a throughput rate of 4 million bushels per year, the cost of oil for the ground storage pile is approximately \$34,000 per year. This makes the total cost of owning and operating the oil application system \$37,784 per year.

Potential uncontrolled PM emissions from the storage piles is 16.08 tons per year when throughput is limited to 4 million bushels per year. With a control efficiency of 60%, the total PM emissions reduction from the use of mineral oil is 9.65 tons per year, making the annual cost of PM reduction \$3,915 per ton of PM removed. Since PM emissions from the storage piles makes up just 6 percent of total PM emissions from the Viterra - Huntley facility, and the cost per ton of PM reduction is \$3915, the use of mineral oil is not economically feasible. Therefore, Mineral oil does not constitute BACT for the proposed action.

Annualized Cost of Mineral Oil System:

$$\text{Annuity Factor} = \frac{1 - \frac{1}{(1+r)^t}}{r}$$

r = cost of capital

t = lifespan of equipment

$$\text{Annuity Factor} = \frac{1 - \frac{1}{(1+0.07)^{20}}}{0.07} = 10.57$$

$$\text{Annualized Cost of Capital} = \frac{\text{Total Cost}}{\text{Annuity Factor}} = \frac{\$40,000}{10.57} = \$3,784.30$$

Cost of Mineral Oil = \$5.00/gal * (# of Gallons)

Cost of Mineral Oil = \$5.00/gal * (4,000,000 bushels * 1.7 gal/1000 bushels) = \$34,000

Total Cost of Mineral Oil System = \$3,784.30 + \$34,000 = \$37,784.30

Note: Total cost does not include annual cost of maintaining the mineral oil system. Including these costs will increase the annualized cost of the system and will increase the cost of each ton of PM reduction achieved from using the system.

Step 3 - Rank Control Technologies by PM/PM₁₀/PM_{2.5} Control Effectiveness

Control Technology Ranking	Control Technology	Associated Cost Per Year
1	Good Operating Practices	\$0.00
2	Mineral Oil as Dust Suppressant	\$37,784.30

Step 4 - Evaluate Most Effective PM/PM₁₀/PM_{2.5} Controls and Document Results

Emissions control depends on economic feasibility as well as technical feasibility. The addition of mineral oil as dust suppressant for the temporary storage piles is technically feasible. However, it is deemed economically infeasible because of the high annual cost necessary to achieve a relatively limited PM reduction of 9.65 tons per year.

Step 5 – Select PM/PM₁₀/PM_{2.5} BACT

Based on the analysis presented, BACT for the temporary ground storage piles becomes good operating practices, as prescribed by Montana DEQ in the initial Viterra-Huntley air quality permit.

IV. Emission Inventory

Viterra USA Grain, LLC
 1653 South 4th Road, Huntley, MT 59037
 Revision to MAQP 5241-01
 Emissions from Grain Receiving

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

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Truck receiving with original process rate from Permit 5241-01	0.18	0.059	0.010	12,000,000	360,000	99%	0.32	0.11	0.02
Truck receiving with increased process rate in 08/09/2023 Administrative Amendment	0.18	0.059	0.010	12,875,000	386,250	99%	0.35	0.11	0.02
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01				875,000	26,250		0.024	0.008	0.001

[1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for straight trucks, 3/03

[2] Viterra USA Grain, LLC received an increase in total annual throughput to 12,875,000 bushels/yr as part of 08/09/2023 administrative permit amendment

[3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A

[4] Receiving pits are controlled with a baghouse. Baghouse control efficiency obtained from MAQP #5241-01

[5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1 - Control Efficiency) / 2000 lbs per ton

Railcar Receiving Pit (EU03)
 Incoming Grain Receiving - SCC 3-02-008-02

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Railcar receiving with original process rate from Permit 5241-01	0.032	0.0078	0.0013	12,000,000	360,000	0%	5.76	1.40	0.23
Railcar receiving with increased process rate in 08/09/2023 Administrative Amendment	0.032	0.0078	0.0013	12,875,000	386,250	0%	6.18	1.51	0.25
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01				875,000	26,250		0.42	0.10	0.02

[1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for railcar receiving, 3/03

[2] Viterra USA Grain, LLC received an increase in total annual throughput to 12,875,000 bushels/yr as part of 08/09/2023 administrative permit amendment

[3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A

[4] Railcar receiving pit is uncontrolled

[5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1 - Control Efficiency) / 2000 lbs per ton

Facility-Wide Emissions

Summary of Facility-Wide Emissions Following Increase in Throughput and Installation/Expansion of Additional Grain Storage Pile

Process or Unit	Pollutant Emissions (tons/yr)							
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	Total HAP
EU01: Truck Receiving Pit 1	0.35	0.11	0.02	-	-	-	-	-
EU02: Truck Receiving Pit 2								
EU03: Railcar Receiving Pit	6.18	1.51	0.25	-	-	-	-	-
EU04: Internal Grain Handling	0.12	0.07	0.01	-	-	-	-	-
EU05: Storage Bin Vents	4.83	1.22	0.21	-	-	-	-	-
EU06: Truck Loading Area				-	-	-	-	-
EU07: Truck Loading Side Tap 1				-	-	-	-	-
EU08: Truck Loading Side Tap 2	16.61	6.57	1.12	-	-	-	-	-
EU09: Rail Loading				-	-	-	-	-
EU14: Storage Pile Truck Loading				-	-	-	-	-
EU16: Truck Loading (Dust Loadout)				-	-	-	-	-
EU11: Storage Pile Truck Receiving	10.80	3.54	0.60	-	-	-	-	-
EU12: Storage Pile Adding/Removing	0.04	0.02	0.00	-	-	-	-	-
EU13: Storage Pile Wind Erosion	0.08	0.04	0.01	-	-	-	-	-
EU17: Grain Cleaner	0.48	0.07	0.01	-	-	-	-	-
EU18: Grain Pile Portable Engine	2.41	2.41	2.41	2.24	33.95	7.31	2.75	3.74E-02
Potential Emissions	41.90	15.55	4.65	2.24	33.95	7.31	2.75	0.04
EU10: Haul Roads (Unpaved) ^[1]	23.57	6.36	0.64	-	-	-	-	-
EU15: Storage Pile Unpaved Haul Roads ^[1]								
Total Emissions	65.47	21.91	5.29	2.24	33.95	7.31	2.75	0.04

[1] Emissions from unpaved haul roads are included as a worst-case scenario. These fugitive emissions are defined as secondary emissions and therefore do not contribute to PTE aggregation when determining eligibility for administrative permit amendment under ARM 17.8.745(2).

Emissions from Internal Handling and Grain Storage

Internal Handling (EU04)
Headhouse & Grain Handling - SCC 3-02-005-30

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Internal Handling with original process rate from Permit 5241-01	0.061	0.034	0.0058	12,000,000	360,000	99%	0.11	0.06	0.01
Internal Handling with increased process rate in 08/09/2023 Administrative Amendment	0.061	0.034	0.0058	12,875,000	386,250	99%	0.12	0.07	0.01
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01				875,000	26,250		0.008	0.004	0.001

- [1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for Headhouse & Grain Handling, 3/03
- [2] Viterra USA Grain, LLC received an increase in total annual throughput to 12,875,000 bushels/yr as part of 08/09/2023 administrative permit amendment
- [3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A
- [4] Internal handling process is controlled with a baghouse. Baghouse control efficiency obtained from MAQP #5241-01
- [5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1- Control Efficiency) / 2000 lbs per ton

Storage Bin Vents (EU05)
Storage Bin (vent) - SCC 3-02-005-40

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Grain Storage Bin Vents with original process rate from Permit 5241-01	0.025	0.0063	0.0011	12,000,000	360,000	0%	4.50	1.13	0.20
Grain Storage Bin Vents with increased process rate in 08/09/2023 Administrative Amendment	0.025	0.0063	0.0011	12,875,000	386,250	0%	4.83	1.22	0.21
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01				875,000	26,250		0.33	0.08	0.01

- [1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for Storage Bins (vent), 3/03
- [2] Viterra USA Grain, LLC received an increase in total annual throughput to 12,875,000 bushels/yr as part of 08/09/2023 administrative permit amendment
- [3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A
- [4] Storage bin vents are uncontrolled
- [5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1- Control Efficiency) / 2000 lbs per ton

Emissions from Grain Loadout (Shipping)

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

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Grain Shipping with original process rate from Permit 5241-01	0.086	0.034	0.0058	12,000,000	360,000	0%	15.48	6.12	1.04
Grain Shipping with increased process rate in 08/09/2023 Administrative Amendment	0.086	0.034	0.0058	12,875,000	386,250	0%	16.61	6.57	1.12
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01				875,000	26,250		1.13	0.45	0.08

- [1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for Grain Shipping - Truck, 3/03
- [2] Viterra USA Grain, LLC received an increase in total annual throughput to 12,875,000 bushels/yr as part of 08/09/2023 administrative permit amendment
- [3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A
- [4] Truck shipping process is uncontrolled
- [5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1- Control Efficiency) / 2000 lbs per ton

Viterra USA Grain, LLC
 1653 South 4th Road, Huntley, MT 59037
 Revision to MAQP 5241-01
 Emissions from Grain Storage Pile Truck Receiving, Pile Unloading and Loading, and Pile Wind Erosion

Storage Pile Truck Receiving (Unloading) (EU11)
 Incoming Grain Receiving - SCC 3-02-008-02

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Pile receiving with original process rate in MAQP 5241-01	0.18	0.059	0.010	1,500,000	45,000	0%	4.05	1.33	0.23
Pile Receiving with installation of additional pile in 08/09/2023 Administrative Amendment (2 piles total)	0.18	0.059	0.010	2,500,000	75,000	0%	6.75	2.21	0.38
Pile receiving after additional expansion of ground storage piles in 2024 (2 piles total)	0.18	0.059	0.010	4,000,000	120,000	0%	10.80	3.54	0.60
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01^[6]				2,500,000	75,000		6.75	2.21	0.38

[1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for straight trucks, 3/03
 [2] Viterra USA Grain, LLC requests the ability to store up to 4 million bushels per year in 7.10 acres of temporary storage piles as part of this permit revision
 [3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A
 [4] Grain pile receiving is uncontrolled
 [5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1- Control Efficiency) / 2000 lbs per ton
 [6] Expansion of ground storage piles is considered a single project with the ground storage pile project described in the 08/09/2023 administrative amendment. Therefore, when determining if this expansion is a de minimis change or a change that requires a MAQP revision, Viterra USA Grain, LLC must compare the change in emissions today with the emissions in original MAQP 5241-01.

Viterra USA Grain, LLC
 1653 South 4th Road, Huntley, MT 59037
 Revision to MAQP 5241-01
 Emissions from Grain Storage Pile Truck Receiving, Pile Unloading and Loading, and Pile Wind Erosion

Unloading to Storage Pile and Loading Trucks from Storage Pile (EU12)
 $EF = k(0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$ (see footnote [1])

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[3]	Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Pile activities with original process rate in MAQP 5241-01	0.00037	0.00017	0.000026	3,000,000	90,000	0%	0.0167	0.0077	0.0012
Pile activities with installation of additional pile in 08/09/2023 Administrative Amendment (2 piles total)	0.00037	0.00017	0.000026	5,000,000	150,000	0%	0.0278	0.0128	0.0020
Pile activities after additional expansion of ground storage piles in 2024	0.00037	0.00017	0.000026	8,000,000	240,000	0%	0.0444	0.0204	0.0031
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01^[6]				5,000,000	150,000		0.0278	0.0128	0.0020

[1] Emission factors from predictive equation in AP-42, Chapter 13.2.4-3, 10/06. Particle size multipliers (k) for PM=0.74, PM10=0.35, and PM2.5=0.053 are from AP-42, Section 13, 11/06. Mean wind speed (U) of 10.8 mph is an average wind speed from Billings/Logan Int'l Airport from 1984-1992. Material moisture content (M) of 15.50 percent is from "Technology and Policy for Suppressing Grain Dust Explosions in Storage Facilities, 09/1995).
 [2] Viterra USA Grain, LLC requests the ability to store up to 4 million bushels per year in 7.10 acres of temporary storage piles as part of this permit revision. Processing both unloading and loading of the pile doubles the throughput shown during receipt of grain at the piles
 [3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A
 [4] Pile loading and unloading activities are uncontrolled
 [5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1- Control Efficiency) / 2000 lbs per ton
 [6] Expansion of ground storage piles is considered a single project with the ground storage pile project described in the 08/09/2023 administrative amendment. Therefore, when determining if this expansion is a de minimis change or a change that requires a MAQP revision, Viterra USA Grain, LLC must compare the change in emissions today with the emissions in original MAQP 5241-01.

EU13:

Admin Amendment to MAQP 5241-00
Emissions from Grain Storage Pile Truck Receiving, Pile Unloading and Loading, and Pile Wind Erosion

Storage Pile Wind Erosion

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Pile Area (acres)	Storage Timeframe (days)	Control Efficiency ^[4] (%)	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/day/acre)	(lb/day/acre)	(lb/day/acre)				(tons/yr)	(tons/yr)	(tons/yr)
Pile wind erosion with original acreage from Permit 5241-01	0.06	0.03	0.01	3.10	365	0%	0.0339	0.0170	0.0057
Pile wind erosion with installation of additional pile in 08/09/2023 Administrative Amendment (2 piles total)	0.06	0.03	0.01	5.15	365	0%	0.0564	0.0282	0.0094
Pile wind erosion after additional expansion of ground storage piles in 2024	0.06	0.03	0.01	7.10	365	0%	0.0777	0.0389	0.0130
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01^[6]				4.00			0.0438	0.0219	0.0073

- [1] Emission factors are from MAQP #5241-00 as provided in original application by the applicant
- [2] Viterro USA Grain, LLC requests the ability to store up to 4 million bushels per year in 7.10 acres of temporary storage piles as part of this permit revision. Processing both unloading
- [3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A
- [4] Pile loading and unloading activities are uncontrolled
- [5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1 - Control Efficiency) / 2000 lbs per ton
- [6] Expansion of ground storage piles is considered a single project with the ground storage pile project described in the 08/09/2023 administrative amendment. Therefore, when determining if this expansion is a de minimis change or a change that requires a MAQP revision, Viterro USA Grain, LLC must compare the change in emissions today with the emissions in original MAQP 5241-01.

Viterro USA Grain, LLC
1653 South 4th Road, Huntley, MT 59037
Revision to MAQP 5241-01
Emissions from Unpaved Haul Roads (Secondary Emissions)

Unpaved roads {AP-42 Chapter 13.2.2 (11/06)}

$$\text{Equation (1a): } E = k \times \left(\frac{sC}{12}\right)^a \times \left(\frac{W}{3}\right)^b \times \left(\frac{365 - P}{365}\right)$$

	k	a	b
PM	4.9	0.7	0.45
PM ₁₀	1.5	0.9	0.45
PM _{2.5}	0.15	0.9	0.45

sC	W	P	VMT in MAQP 5241-00	VMT with Updated Process Throughput from 08/09/2023 AA
6.4	27.5	90	6,818	7,315

Emission Calculations

	Emission Factors (lb/VMT)			Potential Emissions (tons/yr)		
	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
Unpaved Roads with original process rate in MAQP 5241-01	6.444	1.740	0.174	22.00	5.90	0.60
Unpaved Roads with increased process rate in 08/09/2023 Administrative Amendment	6.444	1.740	0.174	23.57	6.36	0.64
Change in Emissions:				1.57	0.46	0.04

Grain Cleaner (EU17)
 Grain Cleaning - SCC 3-02-005-03

Emission Source	PM Emission Factor ^[1]	PM10 Emission Factor ^[1]	PM2.5 Emission Factor ^[1]	Annual Throughput ^[2]	Annual Throughput ^[2]	PM/PM10 Control Efficiency ^[4]	PM2.5 Control Efficiency ^[4]	PM PTE ^[5]	PM10 PTE ^[5]	PM2.5 PTE ^[5]
	(lb/ton)	(lb/ton)	(lb/ton)	(bushels/yr)	(tons/yr)	(%)	(%)	(tons/yr)	(tons/yr)	(tons/yr)
Grain Cleaning with original process rate from Permit 5241-01	0.50	0.076	0.0064	12,000,000	360,000	99.5%	99%	0.45	0.07	0.01
Grain Shipping with increased process rate in 08/09/2023 Administrative Amendment	0.50	0.076	0.0064	12,875,000	386,250	99.5%	99%	0.48	0.07	0.01
Total Increase in Process Rate and Annual Emissions Compared to Original MAQP 5241-01				875,000	26,250			0.033	0.005	0.001

[1] Emission factors from AP-42, Chapter 9, Table 9.9.1-1 for Grain Cleaning (cyclone controlled), 3/03. Established an uncontrolled emission factor by assuming cyclone control efficiencies as follows: PM=85%, PM10=75%, PM2.5=50%. These control efficiencies were also used in MAQP #5241-01

[2] Viterra USA Grain, LLC received an increase in total annual throughput to 12,875,000 bushels/yr as part of 08/09/2023 administrative permit amendment

[3] Throughput converted from bushels/yr to tons/yr by assuming grain density of 60 lbs/bushel. This is highest grain density value in AP-42, Appendix A

[4] Grain cleaner is controlled by a baghouse. PM/PM10/PM2.5 control efficiencies taken from AP-42, Appendix B, Table B.2-3, fabric filter - med temp. These efficiencies were also used in MAQP #5241-00

[5] Emissions (tons/yr) = Emission Factor (lbs/ton) * Annual Throughput (tons/yr) * (1- Control Efficiency) / 2000 lbs per ton

Emissions from Portable Generator Engine

Design rate of engine^[1]: 250 hp
 1.75 MMBtu/hr^[2]
 Operating hours limit: 8,760 hrs/yr

[1] Original portable rental engine in 2023 administrative amendment was Southwest Products QP125, rated at 149 horsepower, and a certified Tier 3 nonroad engine. However, due to possible variations in rental units, Viterra is assuming that any engine used will not exceed 250 horsepower, and emission factors will be consistent with AP-42, Chapter 3, Section 3.3.

[2] Per AP-42, Table 3.3-1, maximum horsepower of engine converted to MMBtu/hr by assuming a BSFC of 7,000 Btu/hp-hr

**Grain Pile Portable Generator Engine
 Uncontrolled Diesel Industrial Engine - SCC 2-02-001-02**

Pollutant	Emission Factor ^[2]	Hourly PTE	PTE
	(lb/hp-hr)	(lbs/hr)	(tons/yr)
PM	2.20E-03	0.55	2.41
PM ₁₀	2.20E-03	0.55	2.41
PM _{2.5}	2.20E-03	0.55	2.41
NO _x	3.10E-02	7.75	33.95
CO	6.68E-03	1.67	7.31
SO ₂	2.05E-03	0.51	2.24
VOC	2.51E-03	0.63	2.75
Pollutant	Emission Factor ^[3]	Hourly PTE	PTE
	(lb/MMBtu)	(lbs/hr)	(tons/yr)
Individual HAPs			
Acetaldehyde	7.67E-04	1.34E-03	5.88E-03
Acrolein	9.25E-04	1.62E-03	7.09E-03
Benzene	9.33E-04	1.63E-03	7.15E-03
1,3-Butadiene	3.91E-05	6.84E-05	3.00E-04
Formaldehyde	1.18E-03	2.07E-03	9.04E-03
Naphthalene	8.48E-05	1.48E-04	6.50E-04
PAH (Exclude Naphthalene)	2.50E-04	4.38E-04	1.92E-03
Toluene	4.09E-04	7.16E-04	3.13E-03
Xylenes	2.85E-04	4.99E-04	2.18E-03
Total HAPs		8.53E-03	3.74E-02

Viterra USA Grain, LLC
 1653 South 4th Road, Huntley, MT 59037
 Revision to MAQP 5241-01
 Facility-Wide Emissions

Summary of Facility-Wide Emissions Following Increase in Throughput and Installation/Expansion of Additional Grain Storage Pile

Process or Unit	Pollutant Emissions (tons/yr)							
	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	Total HAP
EU01: Truck Receiving Pit 1	0.35	0.11	0.02	-	-	-	-	-
EU02: Truck Receiving Pit 2								
EU03: Railcar Receiving Pit	6.18	1.51	0.25	-	-	-	-	-
EU04: Internal Grain Handling	0.12	0.07	0.01	-	-	-	-	-
EU05: Storage Bin Vents	4.83	1.22	0.21	-	-	-	-	-
EU06: Truck Loading Area	16.61	6.57	1.12	-	-	-	-	-
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)				-	-	-	-	-
EU11: Storage Pile Truck Receiving	10.80	3.54	0.60	-	-	-	-	-
EU12: Storage Pile Adding/Removing	0.04	0.02	0.00	-	-	-	-	-
EU13: Storage Pile Wind Erosion	0.08	0.04	0.01	-	-	-	-	-
EU17: Grain Cleaner	0.48	0.07	0.01	-	-	-	-	-
EU18: Grain Pile Portable Engine	2.41	2.41	2.41	2.24	33.95	7.31	2.75	3.74E-02
Potential Emissions	41.90	15.55	4.65	2.24	33.95	7.31	2.75	0.04
EU10: Haul Roads (Unpaved) ^[1]	23.57	6.36	0.64	-	-	-	-	-
EU15: Storage Pile Unpaved Haul Roads ^[1]								
Total Emissions	65.47	21.91	5.29	2.24	33.95	7.31	2.75	0.04

[1] Emissions from unpaved haul roads are included as a worst-case scenario. These fugitive emissions are defined as secondary emissions and therefore do not contribute to PTE aggregation when determining eligibility for administrative permit amendment under ARM 17.8.745(2).

Viterra USA Grain, LLC
 1653 South 4th Road, Huntley, MT 59037
 Revision to MAQP 5241-01
 Facility-Wide Change in Emissions

Change in Emissions Compared to MAQP #5241-00

	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	Total HAP
Updated Potential Emissions	41.90	15.55	4.65	2.24	33.95	7.31	2.75	0.04
Potential Emissions from MAQP 5241-01	30.72	9.34	1.59	0	0	0	0	0
Change in Potential Emissions	11.18	6.21	3.06	2.24	33.95	7.31	2.75	0.04
Updated Total Emissions	65.47	21.91	5.29	2.24	33.95	7.31	2.75	0.04
Total Emissions from MAQP 5241-01	52.7	15.3	2.2	0	0	0	0	0
Change in Total Emissions	12.77	6.61	3.09	2.24	33.95	7.31	2.75	0.04

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. Air quality in the area affected by the proposed action is currently unclassifiable or in compliance (attainment) with applicable national ambient air

quality standards (NAAQS). Existing sources of air pollution in the area are limited and generally include fugitive dust associated with high wind events and exposed ground, vehicle travel on paved and unpaved roads (fugitive dust), vehicle exhaust emissions, and various agricultural practices (vehicle exhaust emissions and fugitive dust). The enforceable limitations and conditions contained in MAQP #5241-02 ensure the facility would not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS). As of October 2, 2024, part of Yellowstone County is designated as an Attainment area for SO₂ according to 40 CFR 81.327. The area originates at the point defined as the southwest corner of Section 11, Township 1S, Range 26E. From that point the boundary proceeds north along the western section line of Section 11 to the point of intersection with the midline of Interstate Highway 90. From that point the boundary follows the midline of Interstate Highway 90, across the Yellowstone River, to the point where the highway midline intersects the northern boundary of Section 35, Township 1N, Range 26E. From that point the boundary proceeds east along the northern section line of Sections 35 and 36 to the point where Old US 87/Hardin Road leaves the section line and turns southeast. The boundary follows the midline of Old US 87/Hardin Road southeast to the point where the road intersects the western boundary of the SE 1/4 of the SE 1/4 of Section 31, Township 1N, Range 27E. From that point the boundary proceeds south along the 1/4 section line to the southern boundary of Township 1N, then east to the northeast corner of Section 5, Township 1S, Range 27E. The boundary then proceeds south along the eastern section line of sections 5 and 8 to the southeast corner of Section 8, Township 1S, Range 27E, where it turns west and follows the south section line of Sections 8 and 7, Township 1S, Range 27E; and Sections 12 and 11, Township 1S, Range 26E, back to the point of origin. As of October 2, 2024, part of Yellowstone County is designated as an Attainment area for CO, according to 40 CFR 81.327. The following areas of Yellowstone Co. (Range and Township) sections: R25E T1N—Sections 24 through 27 and 34 through 36; R25E T1S—Sections 1, 2, and 12; R26E T1N Sections 19 through 22 and 27 through 34; R26E T1S Sections 2 through 11 and 15 through 18.

VI. Air Quality Impacts

DEQ determined that there will be minor impacts from this permitting action based off the potential emissions. Therefore, DEQ 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 result in an increase of emissions from the facility therefore, an environmental assessment is required.



FINAL ENVIRONMENTAL ASSESSMENT

November 22, 2024

Air Quality Bureau
Montana Department of Environmental Quality

PROJECT/SITE NAME: <u>Huntley Facility</u>	
APPLICANT/COMPANY NAME: Viterra USA Grain, LLC	
PROPOSED PERMIT/LICENSE NUMBER: <u>5241-02</u>	
LOCATION: Township 2 North, Range 28 East, Section 20	COUNTY: Yellowstone
PROPERTY OWNERSHIP: FEDERAL <input type="checkbox"/> STATE <input type="checkbox"/> PRIVATE <input checked="" type="checkbox"/>	

Table of Contents

<u>PROJECT OVERVIEW</u>	3
<u>LOCATION</u>	3
<u>COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT</u>	3
<u>PROPOSED ACTION</u>	3
<u>PURPOSE AND NEED</u>	3
Figure 1: Regional Location Map	6
<u>EVALUATION OF AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE:</u>	6
<u>1. GEOLOGY AND SOIL QUALITY, STABILITY, AND MOISTURE</u>	8
<u>2. WATER QUALITY, QUANTITY, AND DISTRIBUTION</u>	8
<u>3. AIR QUALITY</u>	9
<u>4. VEGETATION COVER, QUANTITY, AND QUALITY</u>	10
<u>5. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS</u>	11
<u>6. UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES</u>	12
<u>7. HISTORICAL AND ARCHAEOLOGICAL SITES</u>	12
<u>8. AESTHETICS</u>	13
<u>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR, OR ENERGY</u>	14
<u>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES</u>	14
<u>11. HUMAN HEALTH AND SAFETY</u>	15
<u>12. INDUSTRIAL, COMMERCIAL, AND AGRICULTURAL ACTIVITIES AND PRODUCTION</u>	16
<u>14. LOCAL AND STATE TAX BASE AND TAX REVENUES</u>	17
<u>15. DEMAND FOR GOVERNMENT SERVICES</u>	17
<u>16. LOCALLY-ADOPTED ENVIRONMENTAL PLANS AND GOALS</u>	18
<u>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES</u>	19
<u>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</u>	19
<u>19. SOCIAL STRUCTURES AND MORES</u>	20
<u>20. CULTURAL UNIQUENESS AND DIVERSITY</u>	20
<u>21. PRIVATE PROPERTY IMPACTS</u>	21
<u>22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES</u>	22
<u>23. GREENHOUSE GAS ASSESSMENT</u>	22
<u>PROPOSED ACTION ALTERNATIVES:</u>	25
<u>CONSULTATION</u>	25
<u>OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION:</u>	26
<u>NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS</u>	26
<u>CONCLUSIONS AND FINDINGS</u>	27
<u>ABBREVIATIONS AND ACRONYMS</u>	31

Project Overview

COMPANY NAME: Viterra USA Grain, LLC
EA DATE: November 6, 2024
SITE NAME: Huntley Facility
MAQP#: 5241
Version #: 02
Application Received Date: September 11, 2024

Location

Township 2 North, Range 28 East, Section 20

County: Yellowstone

PROPERTY OWNERSHIP: FEDERAL STATE PRIVATE X

Compliance with the Montana Environmental Policy Act

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The proposed action is considered to be a state action that may have an impact on the human environment and, therefore, the Department of Environmental Quality (DEQ) must prepare an environmental review. This Environmental Assessment (EA) will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608. DEQ may not withhold, deny, or impose conditions on the Permit based on the information contained in this EA (§ 75-1-201(4), MCA).

Proposed Action

Viterra USA Grain, LLC (Viterra) has applied for a Montana Air Quality permit modification under the Clean Air Act of Montana to increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility. The state law that regulates air quality permitting in Montana is the Clean Air Act of Montana, §§ 75-2-101, et seq., (CAA) Montana Code Annotated (MCA). DEQ may not approve a proposed project contained in an application for an air quality permit unless the project complies with the requirements set forth in the CAA of Montana and the administrative rules adopted thereunder, ARMs 17.8.101 et. seq. The proposed action would be located on privately owned land, in Yellowstone County, Montana. All information included in this EA is derived from the permit application, discussions with the applicant, analysis of aerial photography, topographic maps, and other research tools.

Purpose and Need

Under MEPA, Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The Proposed Action is considered to be a state action that may have an impact on the human environment and, therefore, DEQ must prepare an environmental review. This EA will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in ARM 17.4.608.

Table 1: Summary of Proposed Action

Proposed Action	
General Overview	This permitting action is to modify a Montana Air Quality Permit (MAQP) to increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility.
Duration & Hours of Operation	Construction: August 2024 Operation: Continuous operation
Estimated Disturbance	No new land disturbance would occur from this permitting action.
Construction Equipment	None
Personnel Onsite	Construction: Operation: This facility employes 13 full-time employees.
Location and Analysis Area	Location: Section 20, Township 2 North, Range 28 East, in Yellowstone County, Montana Analysis Area: The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.	
Air Quality	The applicant proposes to receive a modification to an existing air quality permit to increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility.
Water Quality	This permitting action would not affect water quality. Viterra is required to comply with the applicable local, county, state and federal requirements pertaining to water quality.

Erosion Control and Sediment Transport	This permitting action would not affect erosion control and sediment transport. Viterra is required to comply with the applicable local, county, state and federal requirements pertaining to erosion control and sediment transport.
Solid Waste	This permitting action would not affect solid waste in the area. Viterra is required to comply with the applicable local, county, state and federal requirements pertaining to solid waste.
Cultural Resources	This permitting action would not affect cultural resources. Viterra is required to comply with the applicable local, county, state and federal requirements pertaining to cultural resources.
Hazardous Substances	This permitting action would not contribute to any hazardous substances. Viterra is required to comply with the applicable local, county, state and federal requirements pertaining to hazardous substances.
Reclamation	This permitting action would not require any reclamation.

Cumulative Impact Considerations	
Past Actions	See previous permitting actions in the Permit History, Section I.C. of the Permit Analysis section of this permit.
Present Actions	Viterra proposes to increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility.
Related Future Actions	DEQ is not currently aware of any future projects from Viterra. Any future projects would be subject to a new permit application.

See Figure 1 below for the project location of the Viterra- Huntley site.

Figure 1: Site Location Map



EVALUATION OF AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE:

The impact analysis will identify and evaluate whether the impacts are direct or secondary impacts to the physical environment and human population in the area to be affected by the proposed project. Direct impacts occur at the same time and place as the action that causes the impact. Secondary impacts are a further impact to the human environment that may be stimulated, or induced by, or otherwise result from a direct impact of the action (ARM 17.4.603(18)). Where impacts would occur, the impacts will be described.

Cumulative impacts are the collective impacts on the human environment within the borders of Montana that could result from the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location and generic type. Related future impacts must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The activities identified in Table 1 were analyzed as part of the cumulative impacts assessment for each resource.

The duration is quantified as follows:

- **Construction Impacts (short-term):** These are impacts to the environment during the construction period. When analyzing duration, please include a specific range of time.

- Operation Impacts (long-term): These are impacts to the environment during the operational period. When analyzing duration, please include a specific range of time.

The intensity of the impacts is measured using the following:

++No impact: There would be no change from current conditions.

- Negligible: An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- Minor: The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- Moderate: The effect would be easily identifiable and would change the function or integrity of the resource.
- Major: The effect would alter the resource.

1. Geology and Soil Quality, Stability, and Moisture

The Viterra Huntley facility area is characterized by the Montana Bureau of Mines and Geology (MBMG) as an Alluvial Fan deposit. The proposed project area is currently used as a grain elevator facility. The addition of the second temporary storage pile was new disturbance, but not first time disturbance for the facility. Expanding the storage pile area for both piles is also not considered first time disturbance. The area near the Viterra Huntley facility site consists of mainly farms and farmland.

Direct Impacts:

The permit application included additional information like analysis of aerial photography, topographic maps, information provided by Viterra and other research tools. This permitting action would not be considered a new disturbance, as the land was previously disturbed by human activity which resulted in the existing grain elevator facility. With this permitting action, no new land disturbance would occur. Therefore, no direct impacts would be expected because of the proposed project.

Secondary Impacts:

No secondary impacts to geology, stability, and moisture would be expected because this action is occurring within the existing Viterra property boundary and no new disturbance is occurring.

Cumulative Impacts:

No cumulative impacts to geology, stability, and moisture would be expected because of this permitting action, as no new land disturbance is occurring, and will be taking place within an already permitted facility.

2. Water Quality, Quantity, and Distribution

The Viterra-Huntley facility is located approximately 5 miles from the Yellowstone River, a popular recreational area in the region. Discharges would not be released to ground or surface water. No fragile or unique water resources or values are present.

Direct Impacts:

Viterra has not submitted any other permit applications that DEQ is aware of related to this proposed permitting action.

No fragile or unique water resources or values are present in the area affected by the proposed project. No direct impacts to water quality and quantity, which are resources of significant statewide and societal importance, would be expected from this permitting action.

Secondary Impacts:

During operations, discharges would not be released to ground or surface water because of the proposed project. Further, as permitted, the proposed project would not be expected to cause or contribute to a violation of the applicable primary or secondary NAAQS. See permit analysis for more detailed information regarding air quality impacts. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Therefore, no secondary impacts to water quality would be expected because of the proposed project. No new water resources would be required for normal operations of the affected new equipment. No secondary impacts to water quantity, quantity, and distribution would be expected from this permitting action.

Cumulative Impacts:

No major cumulative impacts to water quality, quantity, and distribution are anticipated from this permitting action. Viterra has not submitted any other permit applications that DEQ is aware of. Further, DEQ is unaware of any related actions under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures.

3. Air Quality

For details about the existing air quality, see Section V of the Permit Analysis. This facility is located in the Unclassifiable/Attainment category, with some designated areas for SO₂ and CO nearby.

Direct Impacts:

Expected emissions from the construction and operation of this permitting action are shown in the Permit Analysis Section within the Emission Inventory. An assessment of greenhouse gases (GHGs) is described in Section 23 of this draft EA.

Air quality standards, set by the federal government and DEQ are enforced by the Air Quality Bureau (AQB) and allow for pollutants at the levels permitted within the MAQP. The Viterra-Huntley facility has emissions including particulate matter (PM) species, oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), volatile organic compounds (VOCs), Hazardous Air Pollutants (HAPs), and GHG emissions.

Air pollution control equipment must be operated at the maximum design for which it is intended ARM 17.8.752(2). Limitations would be placed on the allowable emissions for the new emission sources. As part of the air quality permit application, Viterra submitted a Best Available Control Technology (BACT) analysis for each emitting unit related to this permitting action. These proposed limits were reviewed by DEQ and incorporated into MAQP #5241-02, if necessary, as federally enforceable conditions. These permit limits cover

NO_x, CO, SO₂, VOCs, PM, and HAPs with associated ongoing compliance demonstrations, as determined by DEQ.

Air quality standards are regulated by the federal Clean Air Act, 42 U.S.C. 7401 *et seq.* and the Montana CAA, § 50-40-101 *et seq.*, MCA, and are implemented and enforced by DEQ's AQB. As stated above, Viterra is required to comply with all applicable state and federal laws. Minor air quality impacts would be anticipated from the proposed action.

Secondary Impacts:

Impacts to air quality from the operation of the Viterra-Huntley facility are to be restricted by an MAQP and therefore should have minor secondary air quality impacts.

Cumulative Impacts:

Cumulative impacts to air quality from the operation of the Viterra-Huntley facility are to be restricted by an MAQP and therefore should have minor air quality impacts. Minor impacts are anticipated from this permitting action. The nearby area also has another stationary source, Coors Brewing Co, MAQP3106-01, that contributes to the air quality in the area.

4. Vegetation Cover, Quantity, and Quality

No fragile or unique resources of values, or resources of statewide or societal importance, are present. The area around the Viterra-Huntley facility is generally farmland. DEQ conducted research using the Montana Natural Heritage Program (MTNHP) website and ran the query titled "Environmental Summary Report" dated October 3, 2024, which identified the following plant Species of Concern (SOC) located in or near the affected facility: Smooth Goosefoot, Fleshy Stitchwort, Double Bladderpod, Crawe's Sedge, Schweinitz's Flatsedge, Long-sheath Waterweed, and Slim-pod Venus'-looking-glass.

The proposed action would be located within the existing footprint of the Viterra property.

The polygon area analyzed using the MTNHP website produces an area inherently larger than the specific disturbance area, so some additional species may be reported that are not necessarily present in the affected area, but nearby.

No important plant areas are present in the area.

Direct Impacts:

The information provided above is based on the information that DEQ had available at the time of draft EA preparation and information provided by the applicant. The permit application provided an analysis of aerial photography, topographic maps, geologic maps, soil maps, and other research tools. As the proposed action would be located within the Viterra-Huntley facility property boundary, minor impacts to vegetation cover are

anticipated, as this permitting action is not considered first time disturbance and will occur within already existing structures. No new land area would be disturbed.

Secondary Impacts:

No secondary impacts to vegetation cover, quantity, and quality are expected since no new land disturbance would occur because of this permitting action, therefore no vegetation would be affected.

Cumulative Impacts:

No cumulative impacts to vegetation cover, quantity, and quality are expected from this permitting action as it did not reduce the amount of vegetation cover, and the land is still being utilized for industrial purposes.

5. Terrestrial, Avian, and Aquatic Life and Habitats

As described earlier in Section 4., Vegetation Cover, the affected area is represented by agricultural and industrial operations and DEQ conducted research using the MTNHP website and ran the query titled “Environmental Summary Report” dated October 3, 2024, which identified the following species of concern (SOC): Sauger, Great Blue Heron, Snapping Turtle, Little Brown Myotis, Hoary Bat, Pinyon Jay, Golden Eagle, Spiny Softshell, Northern Leopard Frog, American White Pelican, Brewer's Sparrow, Sharp-tailed Grouse, Loggerhead Shrike, Burrowing Owl, Brown Creeper, Ferruginous Hawk, Yellow Rail, Yellow-billed Cuckoo, Monarch, Black-billed Cuckoo, Western Milksnake, Merriam's Shrew, Eastern Red Bat, Plains Hog-nosed Snake, Pallid Bat, Great Plains Toad, White-faced Ibis, Dwarf Shrew, Long-eared Myotis, Spotted Bat, Townsend's Big-eared Bat, Black-tailed Prairie Dog, Long-legged Myotis, Suckley Cuckoo Bumble Bee, Bobolink, Veery, Fringed Myotis, Greater Short-horned Lizard, Greater Sage-Grouse, Long-billed Curlew, Sage Thrasher, Black-necked Stilt, Preble's Shrew, American Bittern, Green-tailed Towhee, Red-headed Woodpecker, Baird's Sparrow, Black-crowned Night-Heron, Lewis's Woodpecker, Sprague's Pipit, and Whooping Crane.

The polygon area analyzed using the MTNHP website produces an area inherently larger than the specific disturbance area, so some additional species may be reported that are not necessarily present in this exact area, but nearby. Further, because the proposed action would occur within the footprint of the existing Viterra facility, and the affected area is industrial in nature, the identified Species of Concern would not be expected to locate within or use the affected area for part of their life cycle.

No important bird areas are present on the Viterra property.

Direct Impacts:

The potential impact to terrestrial, avian and aquatic life and habitats would be negligible,

due to the long-term industrial nature of the site.

Secondary Impacts:

Because the proposed action would occur within the existing footprint of the Viterra facility and because the facility is industrial by nature, no secondary impacts to terrestrial, avian and aquatic life and habitats would be stimulated or induced by the direct impacts analyzed above as all actions are occurring within property boundaries and this is not considered first time disturbance

Cumulative Impacts:

No cumulative impacts to terrestrial, avian and aquatic life and habitats would be stimulated or induced by the direct impacts analyzed above or from the permitting action. The Viterra-Huntley facility is located on land that is already in industrial use.

6. Unique, Endangered, Fragile, or Limited Environmental Resources

As described in Section 5 above, DEQ conducted a search using the MTNHP webpage. The search used a polygon that overlapped the site and produced the list of species of concern identified in Section 5. The project would not be in core, general, or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: <http://sagegrouse.mt.gov>.

Direct Impacts:

Among the SOC identified by the MTNHP, these species would not be expected to be displaced by the proposed action as the land where the permitting action would occur is owned by Viterra and has an existing grain elevator facility onsite. Therefore, any potential direct impacts would be short-term and negligible.

Secondary Impacts:

The proposed action would have no secondary impacts to the identified species of concern because the permit conditions are protective of human and animal health and welfare and the affected area is currently used for industrial operations and would not change the effect to existing habitats that may be present in the affected area.

Cumulative Impacts:

The proposed action would have minor cumulative impacts to endangered species because the permit conditions are protective of human and animal health and all lands involved in the proposed action are currently used for industrial operations and would not change the effect to the environment outside of the original construction of the facility.

7. Historical and Archaeological Sites

The Montana State Historic Preservation Office (SHPO) was contacted to conduct a file search for historical and archaeological sites within Section 20, Township 2 North, Range 28 East, which includes the area affected by the proposed project. SHPO provided a letter dated September 30, 2024, stating there have been a few previously recorded sites within the designated search location, but none located within the proposed project area. One site was a Historic Irrigation System, and two sites were Historic Railroads. All three had eligible status. It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are within the Area of Potential Effect, and are over fifty years old, SHPO recommends that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place.

However, should structures need to be altered, or if cultural materials are inadvertently discovered during this proposed action, SHPO requests their office be contacted for further investigation.

Direct Impacts:

Although the search conducted by SHPO identified recorded cultural sites/resources in the search area, none of the identified sites are located on or near the Viterra property. Therefore, no impacts to the identified sites would be expected because of the proposed project. Further, because the proposed project would occur within the footprint of the existing Viterra operations, the proposed project would not be expected to impact any new, previously unrecorded cultural resources that may exist in the affected area. Therefore, no direct impacts to historical and archaeological sites would be expected because of the proposed project.

Secondary Impacts:

No secondary impacts to historical and archaeological sites are anticipated since the proposed action is located on land currently in industrial use.

Cumulative Impacts:

No cumulative impacts to historical and archaeological sites are anticipated since the proposed action is located on land currently in industrial use.

8. Aesthetics

The proposed action would occur on private land owned by Viterra and in an area mostly surrounded by farmland; the closest farm is located approximately 128 yards away from the northwest part of the facility. Further, no construction activity would occur because of the proposed project.

Direct Impacts:

Viterra’s visual profile would change with the expansion of the allowable on-site grain storage and the addition of a new, second temporary storage pile. More specifically, the grain storage footprint would expand from the original 3.10 acres associated with a single temporary storage pile, to a new area of 7.10 acres of storage area associated with increased allowable grain throughput capacity and the addition of a second temporary storage pile. The proposed increase in capacity and addition of a second temporary storage pile would be a major noticeable visible impact to aesthetics. However, any impacts to aesthetics would also be consistent with existing impacts associated with grain storage piles. There would be no increase in noise levels from this permitting action. Therefore, any direct impacts would be long-term and minor to major, and consistent with existing impacts.

Secondary Impacts:

There would be minor secondary impacts on the aesthetics because the property currently is an existing grain elevator facility.

Cumulative Impacts:

Long-term impacts occurred with the addition of the second temporary storage pile as that was previously not on the facility. Minor cumulative impacts are anticipated with the increase in storage area of the two storage piles, as they are already in existence, and a new pile is not being created.

9. Demands on Environmental Resources of Land, Water, Air, or Energy

The site is located on land owned by Viterra. See Sections 2, 3, and 4 of this EA for details regarding land, water, and air impacts.

Direct Impacts:

There would be a minor increase in demand for the environmental resources of land, air, and energy for these actions. Land usage was converted to temporary storage piles with the addition of the second storage pile. With the increase in storage area, this also converts that land into storage area. There will be minor impacts on air and energy as the emissions increased with both actions, therefore the energy usage also increased with these actions. Any direct impacts would be long-term and minor.

Secondary Impacts:

No secondary impacts to demands on land, water, air, and energy are anticipated as a result of this permitting action due to this site already being an industrial in nature.

Cumulative Impacts:

Minor cumulative impacts to demands on land, water, air, and energy are anticipated as a result of this permitting action. Minor cumulative impacts are anticipated with the addition of the second temporary storage pile, and the expansion of the area of both storage piles, in terms of land, air, and energy, as this causes an increase demand on all of those areas.

10. Impacts on Other Environmental Resources

The site is currently a grain elevator facility.

Direct Impacts:

No other environmental resources are known to have been identified in the area beyond those discussed above. Hence, there is no impact to other environmental resources.

Secondary Impacts:

No secondary impacts to other environmental resources are anticipated as a result of the proposed permitting action.

Cumulative Impacts:

No cumulative impacts to other environmental resources are anticipated as a result of the proposed permitting action.

11. Human Health and Safety

The applicant would be required to adhere to all applicable state and federal safety laws. The Occupational Safety and Health Administration (OSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. Members of the public would not be allowed in the immediate proximity to the project during construction or operations and access to the public would continue to be restricted to this property.

Direct Impacts:

Negligible changes in impacts to human health and safety are anticipated as a result of this project action due to the industrial nature of the facility.

Secondary Impacts:

No secondary impacts to human health and safety are anticipated as a result of the proposed permitting action due to the industrial nature of the facility.

Cumulative Impacts:

No cumulative impacts to human health and safety are anticipated as a result of the proposed permitting action due to the industrial nature of the facility.

12. Industrial, Commercial, and Agricultural Activities and Production

This site is used for industrial purposes as it was privately owned land by Viterra and is an existing grain elevator facility.

Direct Impacts:

This permitting action would not change the purpose of the property as it is currently being used for industrial purposes, with the existing grain elevator. Any impacts on industrial, commercial, and agricultural activities and production in the area would be long-term and minor due to the addition of a second temporary storage pile, and an expansion of the area of the two storage piles, which would increase industrial production of the facility and the affected area.

Secondary Impacts:

No secondary impacts to industrial, commercial, and agricultural activities and production are anticipated as a result of the proposed permitting action as this property is already an existing industrial facility.

Cumulative Impacts:

The cumulative impacts are minor as the facility currently used for industrial purposes on land that was already used for industrial purposes, but will see an increase from the addition of the second temporary storage pile and increase in area of the two storage piles.

13. Quantity and Distribution of Employment

There currently are 13 permanent jobs at the Viterra-Huntley site. No new full-time jobs would result from this permitting action. No construction will occur with this permitting action.

Direct Impacts:

The proposed action would be expected to have no impact on the overall distribution of employment as the facility as no new, additional employment would be expected because of this permitting action.

Secondary Impacts:

No secondary impact to the quality and distribution of employment is expected on long-term employment from the proposed action as no new employees are being added from this permitting action.

Cumulative Impacts:

There would be no cumulative impacts on employment for this permitting action because no new employees would be added as a result of this permitting action.

14. Local and State Tax Base and Tax Revenues

Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefiting from this operation.

Direct Impacts:

The proposed action would be expected to have long-term, minor, beneficial impacts on the local and state tax base and tax revenues due to the addition of the second temporary storage pile and expansion allowable grain processing.

Secondary Impacts:

Viterra would continue to be responsible for accommodation of any increased taxes associated with the operation of the modified facility. No secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed permitting action.

Cumulative Impacts:

Minor impacts to local and state tax base and tax revenues were anticipated with the construction and operation of a new facility in the area. Viterra would continue to be responsible for accommodation of any increased taxes associated with the operation of the modified facility. Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefiting from this operation. Therefore, any cumulative impacts would be negligible to minor, consistent with existing impacts in the affected area.

15. Demand for Government Services

The area surrounding the Viterra Huntley site consists of farmland with traditional row crops and hay fields.

Direct Impacts:

The air quality permit has been prepared by state government employees as part of their day-to-day, regular responsibilities. Therefore, any direct impacts to demands for government services would be short-term, consistent with existing impacts, and negligible. Compliance review and assistance oversight by DEQ AQB would be conducted in concert with other area activity when in the vicinity of the proposed project. Therefore, any direct impacts would be long-term and negligible to minor, mainly through increased regulatory oversight by DEQ.

Secondary Impacts:

Initial and ongoing compliance inspections of facility operations would be accomplished by state government employees as part of their typical, regular duties and required to ensure the facility is operating within the limits and conditions listed in the air quality permit. Therefore, any secondary impacts to demands for government services would be long-term, consistent with existing impacts, and negligible.

Cumulative Impacts:

The air quality permit has been prepared by state government employees as part of their day-to-day, regular responsibilities. Following construction of the proposed facility, initial and ongoing compliance inspections of facility operations would be accomplished by state government employees as part of their typical, regular duties and required to ensure the facility is operating within the limits and conditions listed in the air quality permit. Therefore, any cumulative impacts to demands for government services would be short- and long-term, consistent with existing impacts, and negligible. Minor cumulative impacts are anticipated on government services with the proposed action and a minimal increase in impact would occur from the permitting and compliance needs associated with this permitted facility.

16. Locally-Adopted Environmental Plans and Goals

A review was conducted on October 3, 2024, to identify any locally adopted environmental plans or goals. However the town of Huntley does not have an existing website identifying such information. No environmental plans or goals were located. The Viterra Huntley facility is located within 50 miles of the Crow Reservation.

Direct Impacts:

Viterra’s Huntley facility is on property owned by Viterra. DEQ is unaware of any locally adopted environmental plans or goals in the affected area; therefore, no direct impacts would be expected because of the proposed project. Further, the proposed project would not be expected to affect the Crow Reservation because the project would not change the nature of existing Viterra operations.

Secondary Impacts:

DEQ is unaware of any locally adopted environmental plans and goals in the area affected by the proposed action. Therefore, no secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

DEQ conducted a search for the City of Huntley website on October 3, 2024, but no websites were found. No environmental plans or goals were located. Therefore, no

cumulative impacts to locally adopted environmental plans and goals are anticipated as a result of the proposed permitting action.

17. Access to and Quality of Recreational and Wilderness Activities

The Viterra Huntley facility is located approximately 100 miles from the closest wilderness area, Pryor Mountain Wilderness Study Area Big Horn Tack-On. It is located approximately 125 miles from the Bighorn Canyon National Recreation Area and approximately 75 miles from the Lake Mason National Wildlife Refuge.

Direct Impacts:

There would be no impacts to the access to wilderness activities as none are in the vicinity of the proposed action. Therefore, no direct impacts to access to and quality of wilderness activities would be expected because of the proposed project. The affected area is industrial by nature and little to no recreational opportunities exist in the area affected by the proposed project. Therefore, no direct impacts would be expected. Access to the wilderness areas would not change with this permitting action.

Secondary Impacts:

No wilderness areas are located nearby or accessed through this land owned by Viterra. The nearest designated wilderness area is the Pryor Mountain Wilderness Study Area Bighorn Tack-On, located approximately 100 miles from the affected site. Therefore, no secondary impacts to access to and quality of wilderness activities would be expected because of the proposed project. No secondary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed permitting action which is wholly contained within the boundary of the Viterra property.

Cumulative Impacts:

No wilderness areas are located nearby or accessed through this land owned by Viterra. The nearest designated wilderness area is the Pryor Mountain Wilderness Study Area Bighorn Tack-On, located approximately 100 miles from the affected site. Therefore, no cumulative impacts to access to and quality of wilderness activities would be expected because of the proposed project. No cumulative impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed permitting action which is wholly contained within the boundary of the Viterra property.

18. Density and Distribution of Population and Housing

The City of Huntley, Montana has approximately 442 residents (U.S. Census Bureau).

Direct Impacts:

Viterra currently employes 13 full time employees at this facility. This permitting action

would not be expected to increase or decrease employment at the Viterra facility, add to the existing population of nearby Huntley and/or the surrounding area, or require additional housing. Therefore, no direct impacts to density and distribution of population and housing are anticipated because of the proposed action.

Secondary Impacts:

Viterra would employ existing staff to operate the facility and the proposed project would not be expected to otherwise result in an increase or decrease in the local population. No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed permitting action.

Cumulative Impacts:

Viterra would employ existing staff for the proposed project and existing Viterra employees would operate the facility following the completion of the proposed project. Therefore, the proposed project would not be expected to result in an increase or decrease in the local population. No cumulative impacts to density and distribution of population and housing are anticipated as a result of the proposed permitting action as no new employees would be added as result of this permitting action.

19. Social Structures and Mores

Based on the required information provided by Viterra, DEQ is not aware of any native cultural concerns that would be affected by the proposed action on this existing facility. This facility is located within 50 miles of the Crow Indian Reservation.

Direct Impacts:

The proposed action is located on an existing industrial site and no changes to or disruption of native or traditional lifestyles would be expected because of the proposed project. Therefore, no impacts to social structure and mores are anticipated.

Secondary Impacts:

No secondary impacts to social structures and mores are anticipated as a result of the proposed actions due to the existing industrial nature of the facility.

Cumulative Impacts:

No cumulative impacts to social structures and mores are anticipated as a result of the proposed actions. Cumulative impacts are anticipated to be negligible as the location is already in industrial use, and all permitting actions are occurring within existing structures.

20. Cultural Uniqueness and Diversity

Based on the required information provided by Viterra, DEQ is not aware of any unique qualities of the area that would be affected by the proposed action at this existing facility.

Direct Impacts:

Viterra would employ existing staff to accommodate the proposed action and thus the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no direct impacts to the existing cultural uniqueness and diversity of the affected population would be expected because of the proposed project.

Secondary Impacts:

The existing nature of the area affected by the proposed project is agricultural. Further, Viterra would employ existing staff to accommodate changes under the proposed action and thus the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no secondary impacts to the existing cultural uniqueness and diversity of the affected population are anticipated as a result of the proposed action.

Cumulative Impacts:

Viterra would employ existing staff to accommodate changes under the proposed action and thus the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no cumulative impacts to the existing cultural uniqueness and diversity of the affected population are anticipated as a result of the proposed action.

21. Private Property Impacts

The proposed action would take place on privately-owned land. The analysis below in response to the Private Property Assessment Act indicates no impact. DEQ does not plan to deny the application or impose conditions that would restrict the regulated person’s use of private property so as to constitute a taking. Further, if the application is complete, DEQ must take action on the permit pursuant to § 75-2-218(2), MCA. Therefore, DEQ does not have discretion to take the action in another way that would have less impact on private property—its action is bound by a statute.

There are private residences in the area of the proposed action. The closest residence, including homes or structures, is located approximately 128 yards northwest of the project site.

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?

YES	NO	
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

22. Other Appropriate Social and Economic Circumstances

The proposed action would not change the nature of existing Viterra operations, only increase capacity. Therefore, no further direct, secondary, or cumulative impacts are anticipated from this project.

23. Greenhouse Gas Assessment

Issuance of this permit would authorize Viterra to increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility.

The analysis area for this resource is limited to the activities regulated by the issuance of MAQP#5241-02, which is to permit the increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18)

from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility. The amount of natural gas fuel utilized at this site may be impacted by a number of factors including seasonal weather impediments and equipment malfunctions. To account for these factors DEQ has calculated the max amount of emissions using 8760 hours per year of operation.

For the purpose of this analysis, DEQ has defined greenhouse gas emissions as the following gas species: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and many species of fluorinated compounds. The range of fluorinated compounds includes numerous chemicals which are used in many household and industrial products. Other pollutants can have some properties that also are similar to those mentioned above, but the EPA has clearly identified the species above as the primary GHGs. Water vapor is also technically a greenhouse gas, but its properties are controlled by the temperature and pressure within the atmosphere, and it is not considered an anthropogenic species.

The combustion of diesel fuel at the site would release GHGs primarily being carbon dioxide (CO₂), nitrous oxide (N₂O) and much smaller concentrations of uncombusted fuel components including methane (CH₄) and other volatile organic compounds (VOCs).

DEQ has calculated GHG emissions using the EPA Simplified GHG Calculator version May 2023, for the purpose of totaling GHG emissions. This tool totals carbon dioxide (CO₂), nitrous oxide (N₂O), and methane (CH₄) and reports the total as CO₂ equivalent (CO₂e) in metric tons CO₂e. The calculations in this tool are widely accepted to represent reliable calculation approaches for developing a GHG inventory.

Direct Impacts:

Operation of the diesel engine at the Viterra-Huntley facility would produce exhaust fumes containing GHGs.

DEQ estimates that approximately 814 metric tons of CO₂e would be produced per year. To account for variability due to the factors described above, DEQ has calculated the maximum amount of emissions using a factor of 8760 hours per year for operation. Using the Environmental Protection Agency's (EPA) simplified GHG Emissions Calculator for mobile sources, approximately 814 metric tons of CO₂e would be produced per year.

Secondary Impacts:

GHG emissions contribute to changes in atmospheric radiative forcing, resulting in climate change impacts. GHGs act to contain solar energy loss by trapping longer wave radiation emitted from the Earth's surface and act as a positive radiative forcing component (BLM 2021).

Per EPA's website "Climate Change Indicators", the lifetime of carbon dioxide cannot be

represented with a single value because the gas is not destroyed over time. The gas instead moves between air, ocean, and land mediums with atmospheric carbon dioxide remaining in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments. Methane remains in the atmosphere for approximately 12 years. Nitrous oxide has the potential to remain in the atmosphere for about 109 years (EPA, Climate Change Indicators). The impacts of climate change throughout the southeastern area of Montana include changes in flooding and drought, rising temperatures, and the spread of invasive species (BLM 2021).

Cumulative Impacts:

Montana recently used the EPA State Inventory Tool (SIT) to develop a greenhouse gas inventory in conjunction with preparation of a possible grant application for the Community Planning Reduction Grant (CPRG) program. This tool was developed by EPA to help states develop their own greenhouse gas inventories, and this relies upon data already collected by the federal government through various agencies. The inventory specifically deals with carbon dioxide, methane, and nitrous oxide and reports the total as CO₂e. The SIT consists of eleven Excel based modules with pre-populated data that can be used with default settings or in some cases, allows states to input their own data when the state believes their own data provides a higher level of quality and accuracy. Once each of the eleven modules is filled out, the data from each module is exported into a final “synthesis” module which summarizes all of the data into a single file. Within the synthesis file, several worksheets display the output data in a number of formats such as GHG emissions by sector and GHG emissions by type of greenhouse gas.

DEQ has determined the use of the default data provides a reasonable representation of the greenhouse gas inventory for the various sectors of the state, and the estimated total annual greenhouse gas inventory by year. The SIT data from EPA is currently only updated through the year 2021, as it takes several years to validate and make new data available within revised modules. DEQ maintains a copy of the output results of the SIT.

DEQ has determined that the use of the default data provides a reasonable representation of the GHG inventory for all of the state sectors, and an estimated total annual GHG inventory by year. At present, Montana accounts for 47.77 million metric tons of CO₂e based on the EPA SIT for the year 2021. This project may contribute up to 814 metric tons per year of CO₂e. The estimated emission of 814 metric tons of CO₂e from this project would contribute 0.002% of Montana’s annual CO₂e emissions.

GHG emissions that would be emitted as a result of the proposed activities would add to GHG emissions from other sources. The No Action Alternative would contribute approximately the same amount of GHG emissions, as a similar portable generator engine is currently used on site, this action just takes into account the worst case scenario for the type of portable generator engine that could be used each year, as the Proposed Action Alternative of GHG emissions. The current land use of the area is industrial.

Reference

Bureau of Land Management (BLM) 2021. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: <https://www.blm.gov/content/ghg/2021/>. Accessed February 28, 2024.

PROPOSED ACTION ALTERNATIVES:

No Action Alternative:

In addition to the analysis above for the proposed action, DEQ is considering a “no action” alternative. The “no action” alternative would deny the approval of the proposed permitting action. The applicant would lack the authority to conduct the proposed activity. Any potential impacts that would result from the proposed action would not occur. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

Other Ways to Accomplish the Action:

In order to meet the project objective to increase the total grain storage capacity and area of the ground storage piles, increase operating hours of the Portable Generator Engine (EU18) from 8,000 to 8,760, and account for worst case scenarios with the annual engine rental unit utilized by Viterra at the Huntley facility, there are no other ways to accomplish this action outside of updating the existing MAQP for the Viterra-Huntley facility.

If the applicant demonstrates compliance with all applicable rules and regulations as required for approval, the “no action” alternative would not be appropriate. Pursuant to, § 75-1-201(4)(a), (MCA) DEQ “may not withhold, deny, or impose conditions on any permit or other authority to act based on” an environmental assessment.

CONSULTATION

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the environmental assessment document by DEQ staff. External scoping efforts also included queries to the following websites/databases/personnel:

MAQP#5241-02 Application, EPA State Inventory Tool, the EPA GHG Calculator Tool, the Montana Natural Heritage Program Website, the Montana Cadastral Mapping

Program, the City of Huntley website search, and the State Historical Preservation Office.

PUBLIC INVOLVEMENT:

The public comment period for this permit action was from October 15, 2024, through October 30, 2024. No public comments were received.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION:

The proposed project would be located on private land. All applicable state and federal rules must be adhered to, which, at some level, may also include other state, or federal agency jurisdiction.

This environmental review analyzes the proposed project submitted by the Applicant. The project would be negligible and would be fully reclaimed to the permitted postmining land uses at the conclusion of the project and thus would not contribute to the long-term cumulative effects of mining in the area.

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the seven significance criteria set forth in ARM 17.4.608, which are as follows:

- The severity, duration, geographic extent, and frequency of the occurrence of the impact;
- The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
- Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts – identify the parameters of the proposed action;
- The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
- The importance to the state and to society of each environmental resource or value that would be affected.
- Any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

CONCLUSIONS AND FINDINGS

DEQ finds that this action results in minor impacts to air quality and GHG emissions in Yellowstone County, Montana.

The severity, duration, geographic extent and frequency of the occurrence of the impacts associated with the proposed air quality project would be limited. The proposed action would result in no new disturbance at the Viterra-Huntley facility.

As discussed in this EA, DEQ has not identified any significant impacts associated with the proposed actions for any environmental resource. DEQ does not believe that the proposed activities by the Applicant would have any growth-inducing or growth-inhibiting aspects, or contribution to cumulative impacts. The proposed site does not appear to contain known unique or fragile resources.

There are no unique or known endangered fragile resources in the project area. No underground disturbance would be required for this project.

There would be major impacts to view-shed aesthetics as the facility would be constructed where there previously was not one.

Demands on the environmental resources of land, water, air, or energy would not be significant, as it is already an operational facility.

Impacts to human health and safety would not be significant as access roads would be closed to the public and because the site is on Privately Owned Land. The public is not allowed on the Viterra-Huntley site.

As discussed in this EA, DEQ has not identified any significant impacts associated with the proposed activities on any environmental resource.

Issuance of a Montana Air Quality Permit to the Applicant does not set any precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. If the Applicant submits another modification or amendment, DEQ is not committed to issuing those revisions. DEQ would conduct an environmental review for any subsequent permit modifications sought by the Applicant that require environmental review. DEQ would make permitting decisions based on the criteria set forth in the Clean Air Act of Montana.

Issuance of the Permit to the Applicant does not set a precedent for DEQ's review of other applications for Permits, including the level of environmental review. The level of environmental review decision is made based on case-specific consideration of the criteria set forth in ARM 17.4.608.

Finally, DEQ does not believe that the proposed air quality permitting action by the Applicant would have any growth-inducing or growth inhibiting impacts that would conflict with any local, state, or federal laws, requirements, or formal plans.

Based on a consideration of the criteria set forth in ARM 17.4.608, the proposed operation is not predicted to significantly impact the quality of the human environment. Therefore, preparation of an EA is the appropriate level of environmental review for MEPA.

Environmental Assessment and Significance Determination Prepared By:

Emily Hultin
Air Quality Engineering Scientist

Environmental Assessment Reviewed By:

Eric Merchant, Air Permitting Section Supervisor

Approved By:



October 15, 2024

Eric Merchant, Air Permitting Section Supervisor
Department of Environmental Quality

Date

8. REFERENCES

1. **Viterra USA Grain, LLC (Viterra) application** for the new permit of MAQP#5241-02 received September 11, 2024
2. **Coors Brewing Co**, MAQP #3106-01
3. **MBMG - Publications - Download Geologic Maps**. (2024). Mtech.edu. <https://mbmg.mtech.edu/Information/StoryMaps/GeologicMaps.asp#gsc.tab=0>
4. **Montana DEQ GIS Layer – Through-Out Project Up Until Decision Issuance** (2014). Mtdeq.us. <https://gis.mtdeq.us/portal/home/webmap/viewer.html?webmap=bb443b5b50d74f1d83f040497010882e>
5. **Montana State Historical Preservation Office (SHPO) Report Received September 30, 2024** HIS SHPO. (n.d.). Svc.mt.gov. <https://svc.mt.gov/adsams/DocumentSubmission.aspx>
6. **Bureau of Land Management (BLM) 2021**. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: <https://www.blm.gov/content/ghg/2021/>. Accessed February 28, 2024.
7. **US Census Bureau. (2023, June 29)**. *Search Results*. The United States Census Bureau. https://www.census.gov/search-results.html?q=huntley+montana&page=1&stateGeo=none&searchtype=web&cssp=SERP&_charset_=UTF-8
8. *NHP Mapviewer*. (n.d.). Mtnhp.org. <https://mtnhp.org/MapView/?t=4>
9. **Scopes 1, 2 and 3 Emissions Inventorying and Guidance | US EPA**. (2015, July 17). US EPA. <https://www.epa.gov/climateleadership/scopes-1-2-and-3-emissions-inventorying-and-guidance#:~:text=EPA%27s%20scope%201%20and%20scope>
10. **US EPA**. (2017, February 22). *Climate Change Indicators: Greenhouse Gases*. US EPA. <https://www.epa.gov/climate-indicators/greenhouse-gases>
11. **Program Map**. (2024). Mt.gov. <https://sagegrouse.mt.gov/ProgramMap>

ABBREVIATIONS and ACRONYMS

AQB – Air Quality Bureau
ARM - Administrative Rules of Montana
BACT – Best Available Control Technology
BMP - Best Management Practices
CAA – Clean Air Act of Montana
CFR - Code of Federal Regulations
CO - carbon monoxide
DEQ – Department of Environmental Quality
DNRC – Department of Natural Resources and Conservation
EA – Environmental Assessment
EIS – Environmental Impact Statement
EPA - U.S. Environmental Protection Agency
FCAA- Federal Clean Air Act
MAQP – Montana Air Quality Permit
MCA – Montana Code Annotated
MEPA – Montana Environmental Policy Act
MTNHP - Montana Natural Heritage Program
NO_x - oxides of nitrogen
PM - particulate matter
PM₁₀ - particulate matter with an aerodynamic diameter of 10 microns and less
PM_{2.5} - particulate matter with an aerodynamic diameter of 2.5 microns and less
PPAA - Private Property Assessment Act
Program - Sage Grouse Habitat Conservation Program
PSD - Prevention of Significant Deterioration
SHPO - Montana State Historic Preservation Office
SOC - Species of Concern
SO₂ - sulfur dioxide
tpy – tons per year
U.S.C. - United States Code
Viterra – Viterra USA Grain, LLC
VOC - volatile organic compound