

October 19, 2016

United Grain Corporation P.O. Box 732 Culbertson, MT 59218

Dear Mr. Northington:

Montana Air Quality Permit #4845-01 is deemed final as of October 19, 2016, by the Department of Environmental Quality (Department). All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie A. Merkel

Permitting Services Section Supervisor

Julio A Merkel

Air Quality Bureau

(406) 444-3626

ЈМ:СН

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

## Montana Department of Environmental Quality Air, Energy and Mining Division

Montana Air Quality Permit #4845-01

United Grain Corporation P.O. Box 732 Culbertson, MT 59218

October 19, 2016



## MONTANA AIR QUALITY PERMIT

Issued to: United Grain Corporation MAOP: #4845-01

P.O. Box 732

Application Complete: 08/18/2016 Preliminary Determination Culbertson, MT 59218

Issued: 09/14/2016

Department's Decision Issued: 10/3/2016

Permit Final: 10/19/2016

AFS #: 085-0152

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to United Grain Corporation (UGC), 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 plant's approximate location is 1 mile south of Culbertson, Montana. The legal site location description of this facility is the Northwest 1/4 of Section 32, Township 28 North, Range 56 East in Roosevelt County.

#### B. Current Permit Action

On August 18, 2016, the Department received a request from UGC proposing to install two new storage bins to the existing operation. The bins are each estimated at 500,000 bushels of storage with concrete floor and steel walls. An existing condition in MAQP #4845-00 required the use of bag filtration on all storage bins at the site. The two new bins have a different design from the existing bins and the bag filtration requirement is being modified to only include existing storage bins. A BACT analysis for the two new storage bins is also included. The original potential to emit (PTE) for the facility was based on product throughput and the addition of new storage bins does not increase the PTE for the facility based on the previous analysis. A complete list of the permitted equipment is included in Section I.A of the permit analysis.

## SECTION II: Conditions and Limitations

#### A. Emission Limitations

- UGC shall install, operate, and maintain the following emission control 1. equipment in accordance with manufacturer's instructions to provide maximum pollution control (ARM 17.8.752):
  - a. Mechanical receiving pit baffles (grain receiving).
  - b. Baghouse dust filter with connection to truck receiving pit and associated conveyor system (grain receiving).
  - c. 2-sided roofed enclosure on truck receiving pit (grain receiving).

- d. Enclosure on internal grain handing equipment; including elevator legs and bucket conveyors, bin fill conveyors, reclaim conveyors, and distribution system (internal grain handling).
- e. Telescoping loadout spout (railcar loading).
- f. Bag filtration on storage bin vents numbered one (1) through eleven (11).
- 2. UGC shall receive by way of straight or hopper truck into the grain elevator no more than 13,000,000 bushels of grain per rolling 12-month period (ARM 17.8.749).
- 3. UGC shall handle no more than 26,000,000 bushels of grain per rolling 12-month period within the grain elevator and permanent storage bins (ARM 17.8.749).
- 4. UGC shall ship by way of rail no more than 13,000,000 bushels of grain per rolling 12-month period (ARM 17.8.749).
- 5. UGC 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).
- 6. UGC 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).
- 7. UGC shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.6 (ARM 17.8.749).

## B. Testing Requirements.

- 1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- 2. The Montana Department of Environmental Quality (Department) may require further testing (ARM 17.8.105).

## C. Operational Reporting Requirements

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

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

- 2. UGC shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new 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 or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
- 3. All records compiled in accordance with this permit must be maintained by UGC as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 4. UGC shall document, by month, the total amount of grain received into the grain elevator. By the 25<sup>th</sup> of each month, UGC shall total the grain received for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. The information for the previous months shall be submitted along with the annual emissions inventory (ARM 17.8.749).
- 5. UGC shall document, by month, the total amount of grain handled by the grain elevator (internal grain handling). By the 25<sup>th</sup> of each month, UGC shall total the grain handled for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.3. The information for the previous months shall be submitted along with the annual emissions inventory (ARM 17.8.749).
- 6. UGC shall document, by month, the total amount of grain shipped via rail from this this facility. By the 25<sup>th</sup> of each month, UGC shall total the grain shipped for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.4. The information for the previous months shall be submitted along with the annual emissions inventory (ARM 17.8.749).

#### D. Notification

UGC shall provide the Department with written notification of the following dates within the specified time periods (ARM 17.8.749):

- 1. Actual date the new storage bins (numbered 12 and 13) are put into service within 15 days after the actual start-up; and
- 2. All compliance source tests, as required by the Montana Source Test Protocol and Procedures Manual.

#### SECTION III: General Conditions

- A. Inspection UGC shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring System (CEMS), Continuous Emission Rate Monitoring System (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 UGC fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving UGC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by UGC 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 United Grain Corporation MAQP #4845-01

## I. Introduction/Process Description

## A. Facility Description

United Grain Corporation (UGC) is proposing to install two new storage bins with a total storage capacity of approximately 1,000,000 bushels. The new storage bins will be located adjacent to the previously installed storage bins. Previous storage bins are numbered one (1) through eleven (11). The two new storage bins will be numbered twelve (12) and thirteen (13).

UGC is proposing to install two new storage bins with concrete base and steel walls. Each new bin will add approximately 500,000 bushels of storage. With the expansion the facility will have a grain storage capacity of approximately 2,000,000 bushels of permanent storage, 25,000 bushels per hour (bu/hr) truck receiving capacity, and 50,000 bu/hr of railcar loadout capacity.

The proposed facility expansion will continue to allow the facility to receive grain from local farms for storage until the grain is shipped to market. Area grain is hauled to the facility from producers via truck and routed to the receiving area of the elevator, where grain is gravity feed into a receiving pit for placement into storage. The receiving pit is equipped with mechanically actuated pit baffles and dust aspiration to a baghouse. Air with entrained dust particles from the truck receiving pit and conveyor system is collected and routed through ducts to a baghouse dust filter before exhausting to the atmosphere.

Grain is transferred through the elevator by means of fully enclosed conveyors and elevator legs to minimize the release of dust to the atmosphere. The receiving conveyors and elevator leg, each rated at 25,000 bu/hr, route the grain into the storage silos. The shipping belt conveyor and elevator leg (reclaim system), each rated at 50,000 bu/hr, distribute grain to the bulk weigher for loadout to railcar.

The two new storage bins will allow for longer term storage but do not increase the original throughput of the elevator. It is estimated that the new storage bins will be filled and emptied only a couple of times each season and therefore, any particulate emission increases is already accounted for in the original analysis where it was assumed 26,000,000 bushels would be processed through the storage bins. Equipment used at this facility includes, but is not limited to, the following:

- Truck receiving pit and drag conveyor(s) 25,000 bu/hr;
- Internal grain handling (receiving leg & drag conveyor) 25,000 bu/hr;
- Grain silo storage bin(s) 2,000,000 bu permanent storage (approximate)
- Internal grain handling (shipping leg & main reclaim belt conveyor) 50,000 bu/hr
- Grain railcar loadout equipment 50,000 bu/hr;
- Dust control systems Baghouse dust filter, receiving baffles, bin vents; and,
- Associated grain handling equipment;

## B. Facility History

**MAQP #4845-00** was issued to United grain Corporation on February 27, 2013. The permit was for a Grain Elevator and associated equipment.

#### C. Current Permit Action

On August 18, 2016, the Department received a request from UGC proposing to install two new storage bins to the existing operation. The bins are each estimated at 500,000 bushels of storage with concrete floor and steel walls. An existing condition in MAQP #4845-00 required the use of bag filtration on all storage bins at the site. The two new bins have a different design from the existing bins and the bag filtration requirement is being modified to only include existing bins (bins numbered one (1) through eleven (11). A BACT analysis for the two new storage bins is also included. The original potential to emit (PTE) for the facility was based on product throughput and the addition of new storage bins does not increase the PTE for the facility. **MAQP #4845-01** replaces MAQP #4845-00.

## II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Montana Department of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

- A. ARM 17.8 Subchapter 1, General Provisions, including, but not limited to:
  - 1. <u>ARM 17.8.101 Definitions</u>. This section includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, including instruments and sensing devices, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
  - 3. <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

UGC shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Testing Protocol and Procedures Manual is available from the Department upon request.

- 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
- 5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.
- B. ARM 17.8, Subchapter 2 Ambient Air Quality, including, but not limited to the following:
  - 1. ARM 17.8.204 Ambient Air Monitoring
  - 2. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
  - 3. ARM 17.8.221 Ambient Air Quality Standard for Visibility
  - 4. ARM 17.8.223 Ambient Air Quality Standards for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (PM<sub>10</sub>)

UGC must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. This rule requires that no person may cause or authorize emissions to be discharged into an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
  - 2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions are taken to control emissions of airborne particulate. (2) Under this section, UGC 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. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. 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 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (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 requirements of this subpart. UGC 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 the Department. UGC submitted the appropriate permit application fee for the current permit action.
  - 2. <u>ARM 17.8.505 Air Quality Operation Fees</u>. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department; and the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

- E. ARM 17.8, Subchapter 7 Permit, Construction, and Operation of Air Contaminant Sources, including but not limited to:
  - 1. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 Montana Air Quality Permits When Required</u>. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year (tpy) of any pollutant. UGC has PTE greater than 25 tpy of PM and PM<sub>10</sub>; therefore, an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  - 4. <u>ARM 17.8.745 Montana Air Quality Permits Exclusion for De Minimis Changes</u>. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

- 5. ARM 17.8.748 New or Modified Emitting Units Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. UGC submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. UGC submitted an affidavit of publication of public notice for the August 18, 2016, issue of the *Searchlight*, a newspaper of general circulation in the Town of Culbertson in Roosevelt County, as proof of compliance with the public notice requirements.
- 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
- 7. <u>ARM 17.8.752 Emission Control Requirements</u>. This rule requires a source to install the maximum air pollution control capability, which is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
- 8. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
- 9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving UGC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
- 10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
- 11. <u>ARM 17.8.762 Duration of Permit</u>. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
- 12. <u>ARM 17.8.763 Revocation of Permit</u>. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

- 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
- 14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8 Subchapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this chapter.
  - 2. <u>ARM 17.8.818 Review of Major Stationary Source and major Modifications Source Applicability and Exemptions.</u> The requirements contained in ARM 17.8.819 through 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this chapter would otherwise allow.
    - This facility is not a major stationary source because it is not a listed source and does not have the PTE more than 250 tpy or more of any air pollutant from point sources of emissions.
- G. ARM 17.8 Subchapter 12, Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
    - a. PTE > 100 tpy of any pollutant;
    - b. PTE > 10 tpy of any single hazardous air pollutant (HAP), PTE > 25 tpy of a combined HAPs, or lesser quantity as the Department may establish by rule; or
    - c. PTE > 70 tpy of PM<sub>10</sub> in a serious PM<sub>10</sub> non-attainment area.
  - 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. 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 #4845-01 for UGC, the following conclusions were made:

- a. The facility's PTE is less than 100 tpy for all criteria pollutants.
- b. The facility's PTE is less than 10 tpy of any single HAP and less than 25 tpy of all HAPs.
- c. This source is not located in a serious  $PM_{10}$  non-attainment area.
- d. This facility is not subject to any current NSPS.
- e. This facility is not subject to any current NESHAP.
- f. This source is not a Title IV affected source or a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

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

## III. BACT Determination

A BACT determination is required for each new or modified source. UGC shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. The two new storage bins being proposed at the site are intended for long term storage of product and do not function in the same manner as the existing storage bins. The two new storage bins are expected to only be filled and emptied a couple of times each year and therefore emissions associated with these storage bins are nearly insignificant.

For previously permitted sources similar to UGC, the Department has reviewed the following particulate matter control options during review of the BACT analysis.

## A. Electrostatic Precipitator (ESP)

An ESP ionizes the contaminated air flowing between oppositely charged electrodes. These charged particles migrate towards the oppositely charged plates, which are eventually removed and collected at the bottom of the ESP. An ESP can handle large gas volumes and are very efficient at removing small particles with high removal efficiencies ranging from approximately 90% to 99%. While an ESP can achieve high removal efficiencies, the installation and operation costs of the ESP are considerably higher than other similar control technologies. For this reason, an ESP has not constituted BACT in previously permitted sources similar to UGC.

## B. Baghouse

Fabric dust filtration equipment (baghouse) is used to collect dry particles from a gas stream. As the gas stream passes through the fabric dust filter, the dust particles are collected and retained by the fabric. A baghouse is very efficient at removing small particles and high particulate mass loadings, with removal efficiencies commonly ranging from 95% to 99%. A baghouse can achieve high removal efficiencies and the installation and operation costs of a baghouse are considerably less than an ESP.

Therefore, the Department determined that the installation, operation, and maintenance of a baghouse constituted BACT in previously permitted sources similar to UGC.

## C. Process Enclosure

Enclosing grain handling activities, including receiving, loading, and conveyors, serves to isolate these activities from wind disturbance which could mobilize dust generated during transfer activities. The effectiveness of enclosure is difficult to quantify, however control efficiencies are documented to achieve 40% to 80%. Enclosures are a comparatively inexpensive add-on control method; therefore, the Department determined that the installation of enclosures around grain handling activities constituted BACT in previously permitted sources similar to UGC. The existing grain process handling enclosures are in still in place and the two new storage bins are effectively a process enclosure. The receiving pit also contains a fabric dust filtration system through which all material received is controlled. The majority of dust on received product will be removed and controlled at this location. Additionally, new receiving and reclaim conveyors are fully enclosed across the site.

PM estimates for the two new storage bins are estimated at less than one ton per year and therefore pollution control for these two storage bins according to their planned operation is not feasible. The storage bins act as process enclosures and the low velocity used for conditioning also reduces the likelihood of particulate emissions. Further, the dust filtration system used at the receiving pit, will control the majority of particulate emissions. The Department reviewed the methods of controlling PM emissions proposed by UGC, as well as previous BACT determinations to determine the appropriate BACT for this facility. UGC proposed, and the Department approved as BACT, the installation and effective operation of the following particulate matter control options for each emitting unit.

## New Storage Bins numbered as twelve (12) and thirteen (13)

- 1. Enclosure of elevator legs/bucket conveyors to the new storage bins
- 2. Fabric Dust Filtration System at the Receiving Pit (existing).

## IV. Emissions Inventory

	Emissions Tons/Year [PTE]					
	Uncontrolled Emissions Controlled Emissions			ions		
Emission Source	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
Grain Receiving - Permanent Storage	35.10	11.51	1.95	14.04	4.60	0.78
Head House & Internal Grain Handling	23.79	13.26	2.26	23.79	13.26	2.26
Storage Bin Vents	9.75	2.46	0.43	0.98	0.25	0.04
Grain Shipping - Truck Loadout	16.77	5.66	0.96	10.06	3.39	0.57
Unpaved Roadways <sup>(a)</sup>	19.49	4.97	0.50	19.49	4.97	0.50
TOTAL EMISSIONS ►	85.41	32.88	5.60	48.87	21.50	3.66

(a) Emissions from unpaved roadways are included as a worst-case scenario. These fugitive emissions are defined as secondary emission and therefore do not contribute to PTE aggregation.		
bu, bushel Ce, control efficiency (%) EF, emission factor hr, hour	PM, particulate matter PM <sub>10</sub> , particulate matter with an aerodynamic diameter of 10 microns or less PM <sub>2.5</sub> , particulate matter with an aerodynamic diameter of 2.5 microns o SCC, Source Classification Code	

lbs, pounds mph, miles per hour	TPY, tons per year VMT, vehicle miles travelled
PTE, Potential To Emit	

#### United Grain Corporation - Country Grain Elevator

Grain Properties: 0.03 tons/Bu

60.00 lbs/Bu

Throughput Capacity: 13,000,000 bu/year

390,000 tons/year

## **Grain Handling:**

Grain Receiving - Straight Truck [SCC 3-02-005-51]

Throughput Capacity: 13,000,000 bu/year

390,000 tons/year

Control Equipment: Receiving Pit Enclosure / Mechanical Receiving Pit Baffles & Baghouse Filter

Estimated Control Efficiency (C<sub>e</sub>): 40-80 % Receiving Pit Enclosure

20 - 40 % Receiving Pit Baffles Capture w/Baghouse Control60 % Combined Capture and Control Assignment

Basis: Utilized straight truck emission factors as provide a greater lb/ton ratio than hopper truck (bottom dump) emission factor

PM Emissions:

Emission Factor 0.18 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.18 lbs/ton) \* (390000 tons/year) \* (0.0005 lbs/ton) = 35.10 tons/year (uncontrolled)

(35.10 tons/year) \* (1 - 0.6 Ce) 14.04 tons/year (controlled)

PM<sub>10</sub> Emissions:

Emission Factor 0.059 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.059 lbs/ton) \* (390000 tons/year) \* (0.0005 lbs/ton) = 11.51 tons/year (uncontrolled)

(11.51 tons/year) \* (1 - 0.6 Ce) 4.60 tons/year (controlled)

PM<sub>2.5</sub> Emissions:

Emission Factor 0.010 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.01 lbs/ton) \* (390000 tons/year) \* (0.0005 lbs/ton) = 1.95 tons/year (uncontrolled)

(1.95 tons/year) \* (1 - 0.6 Ce) = 0.78 tons/year (controlled)

Head House and Internal Grain Handling [SCC 3-02-005-30]

Throughput Capacity: 26,000,000 bu/year

780,000 tons/year

Control Equipment: Enclosed Equipment

Estimated Control Efficiency (Ce): Not Determined - Insufficient Data

PM Emissions (uncontrolled):

Emission Factor 0.061 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.061 lbs/ton) \* (780000 tons/year) \* (0.0005 lbs/ton) = 23.79 tons/year

PM<sub>10</sub> Emissions (uncontrolled):

Emission Factor 0.034 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03] Calculations (0.034 lbs/ton) \* (780000 tons/year) \* (0.0005 lbs/ton) = 13.26 tons/year

PM<sub>2.5</sub> Emissions (uncontrolled):

Emission Factor 0.0058 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03] Calculations (0.0058 lbs/ton) \* (780000 tons/year) \* (0.0005 lbs/ton) = 2.26 tons/year

Storage Bin Vents [SCC 3-02-005-40]

Throughput Capacity 26,000,000 bu/year

780,000 tons/year

Control Equipment: Bin Vent Fabric Filters Estimated Control Efficiency ( $C_e$ ):  $\geq 90\%$ 

PM Emissions:

Emission Factor 0.025 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.025 lbs/ton) \* (780000 tons/year) \* (0.0005 lbs/ton) = 9.75 tons/year (uncontrolled)

(9.75 tons/year) \* (1 - 0.90 Ce) = 0.975 tons/year (controlled)

PM<sub>10</sub> Emissions:

Emission Factor 0.0063 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.0063 lbs/ton) \* (780000 tons/year) \* (0.0005 lbs/ton) = 2.46 tons/year (uncontrolled)

(2.457 tons/year) \* (1 - 0.90 Ce) = 0.25 tons/year (controlled)

PM<sub>2.5</sub> Emissions:

Emission Factor 0.0011 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.0011 lbs/ton) \* (780000 tons/year) \* (0.0005 lbs/ton) = 0.43 tons/year (uncontrolled)

(0.429 tons/year) \* (1 - 0.90 Ce) = 0.04 tons/year (controlled)

Grain Shipping - Railcar Loadout [SCC 3-02-005-63]

Throughput Capacity: 13,000,000 Bu/year

390,000 tons/year

Control Equipment: Telescopic Loadout Spout

Estimated Control Efficiency (Ce): 40%

PM Emissions:

Emission Factor 0.086 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.086 lbs/ton) \* (390000 tons/year) \* (0.0005 lbs/ton) = 16.77 tons/year (uncontrolled)

(16.77 tons/year) \* (1 - 0.40 Ce) = 10.06 tons/year (controlled)

PM<sub>10</sub> Emissions:

Emission Factor 0.0290 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.029 lbs/ton) \* (390000 tons/year) \* (0.0005 lbs/ton) = 5.66 tons/year (uncontrolled)

(5.655 tons/year) \* (1 - 0.40 Ce) = 3.39 tons/year (controlled)

PM<sub>2.5</sub> Emissions:

Emission Factor 0.00490 lbs/ton grain [AP-42 Table 9.9.1-1, 3/03]

Calculations (0.0049 lbs/ton) \* (390000 tons/year) \* (0.0005 lbs/ton) = 0.96 tons/year (uncontrolled)

(0.9555 tons/year) \* (1 - 0.40 Ce) 0.57 tons/year (controlled)

Unpaved Roadways (Haul Roads) - Secondary Emissions

4845-01 10 Final: 10/19/2016

Vehicle Miles Travelled (VMT): 15955 Miles/Year

VMT Basis:

Grain 25 Tons [Average Cargo Weight]

Trips 15600 Hauls Per Year [Based on Maximum Annual Throughput]

Distance 5400 feet [Round-Trip - Estimated]

Mean Vehicle Weight: 27.5 Tons [Weight Empty/Full]

Control Method: Water Application Control Efficiency (C<sub>e</sub>): 50%

#### Particulate Emissions (controlled):

Emission Factor EF =  $k(s/12)^a * (W/3)^b * [(365-P)/365]$  [AP-42 13.2.2.2, 11/06]

where: EF, Emission Factor = Ibs Emitted Per Vehicle Mile Traveled (VMT)

k, Empirical Constant PM = 4.9 [AP-42 Table 13.2.2-2, 11/06] k, Empirical Constant PM<sub>10</sub> = 1.5 [AP-42 Table 13.2.2-2, 11/06] k, Empirical Constant PM<sub>2.5</sub> = 0.15 [AP-42 Table 13.2.2-2, 11/06] s, Surface Material Silt Content (%) = 4.8 [AP-42 Table 13.2.2-1, 11/06] W, Mean Vehicle Weight (tons) = 27.5 [Applicant Provided Data] a, Empirical Constant PM = 0.7 [AP-42 Table 13.2.2-2, 11/06] a, Empirical Constant PM<sub>10</sub>/PM<sub>2.5</sub> = 0.9 [AP-42 Table 13.2.2-2, 11/06] b, Empirical Constant PM - PM<sub>2.5</sub> = 0.45 [AP-42 Table 13.2.2-2, 11/06] p, Days w/ Precipitation (≤ 0.01") 110 [AP-42 Figure 13.2.2-1, 11/06]

#### PM Emissions (controlled):

Emission Factor	EF = 4.9 * (4.8/12)^0.7 * (27.5/3)^0.45 * [(365 - 110)/365] =	4.89	lbs/VMT
Calculations	(4.89 lbs/VMT) * (15,955 miles/year) * (1 - 0.5 Ce) =	38970.41	lbs/year
	(38,970.41 lbs/year) * (0.0005 tons/lb) =	19.49	TPY

## PM<sub>10</sub> Emissions (controlled):

Emission Factor	EF = 1.5 * (4.8/12)^0.9 * (27.5/3)^0.45 * [(365-110)/365] =	1.25	lbs/VMT
Calculations	(1.25  lbs/VMT) * (15,955  miles/year) * (1 - 0.5  Ce) =	9932.12	lbs/year
	(9,932.12  lbs/year) * (0.0005  tons/lb) =	4.97	TPY

#### PM<sub>2.5</sub> Emissions (controlled):

Emission Factor	$EF = 0.15 * (4.8/12)^0.9 * (27.5/3)^0.45 * ((365-110)/365] =$	0.12 lbs/VMT
Calculations	(0.12 lbs/VMT) * (15,955 miles/year) * (1 - 0.5 Ce) =	993.21 lbs/year
	(993.21 lbs/year) * (0.0005 tons/lb) =	0.50 TPY

## V. Existing Air Quality

UGC's grain handling facility is located in the Northwest  $^{1}$ /4 of Section 32, Township 28 North, Range 56 East in Roosevelt County. The air quality of this area is classified as unclassifiable/attainment for National Ambient Air Quality Standards (NAAQS) pollutants, including particulate matter (PM<sub>10</sub>/PM<sub>25</sub>).

## VI. Ambient Air Impact

The area surrounding the facility is predominantly agricultural/undeveloped lands. The emissions from the facility expansion would be seasonal in nature with generally good dispersion characteristics in the area. Therefore, in the view of the Department, the amount of controlled emissions from this facility will not cause an exceedance of any ambient air quality standard.

## VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
<b>✓</b>		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	✓	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	<b>✓</b>	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	✓	4. Does the action deprive the owner of all economically viable uses of the property?
	<b>✓</b>	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?
	<b>✓</b>	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	<b>✓</b>	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?
	✓	7a. Is the impact of government action direct, peculiar, and significant?
	<b>✓</b>	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	<b>✓</b>	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?
	<b>✓</b>	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

#### VIII. Environmental Assessment

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

Permit Analysis Prepared By: C. Henrikson

Date: September 2, 2016

#### MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Air, Energy and Mining Division
Air Quality Bureau
1520 East Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901
(406) 444-3490

## FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: United Grain Corporation

P.O. Box 732

Culbertson, MT 59218

Montana Air Quality Permit (MAQP) Number: #4845-01

Preliminary Determination Issued: 09/14/2016

Department Decision Issued: 10/3/2016

Permit Final: 10/19/2016

- 1. Legal Description of Site: United Grain Corporation's (UGC) grain handling proposed modification is located at the existing facility approximately 1 mile south of Culbertson Montana, with a legal site description of the Northwest 1/4 of Section 32, Township 28 North, Range 56 East in Roosevelt County.
- 2. Description of Project: UGC is proposing to install two new storage bins which will add approximately 1,000,000 more bushels of storage to the existing site. A complete list of the permitted equipment is included in Section I.A of the permit analysis.
- 3. *Objectives of Project:* Increased business and revenue. The proposed facility expansion would provide for additional long term storage on site.
- 4. Alternatives Considered: In addition to the proposed action, the Montana Department of Environmental Quality (Department) also considered the "no action" alternative. The "no action" alternative would deny the issuance of the MAQP to the proposed facility. However, the Department does not consider the "no action" alternative to be appropriate because UGC has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration. Other alternatives considered related to pollution control practices are discussed in the Best Available Control Technology (BACT) section of the Permit Analysis.
- 5. A listing of mitigation, stipulations, and other controls: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4845-01.
- 6. Regulatory effects on private property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

4845-01 1 Final: 10/19/2016

# SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

## A. Terrestrial and Aquatic Life and Habitats

The proposed project would add two new storage bins to the site bringing the total storage capacity to approximately 2,000,000 bushels. The original emission inventory prepared by the Department calculated storage emissions based on throughput at the elevator and therefore, adding new storage bins does not result in an increase in calculated emissions for the facility since the throughput is not increasing. Conditions requiring control mechanisms have been placed within MAQP #4845-01 to ensure that only minor air quality impacts would occur. Additionally, limitations established within MAQP #4845-01 would minimize air pollution. Overall, any adverse impact on terrestrial and aquatic life and habitats is anticipated to be minor.

## B. Water Quality, Quantity, and Distribution

This permitting action would have little or no effect on the water quality, water quantity, and distribution, as there would be no discharge to groundwater or surface water associated with the completed project. Therefore, the project would have minor, if any, impacts to water quality, quantity or distribution in the area.

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

This permitting action would have a minor effect on geology and soil properties with land disturbances associated with construction of the facility. Disturbance for this project is limited to the footprint of the new storage bins. The Department determined that any impacts from deposition would be minor due to dispersion characteristics of pollutants, the atmosphere, and conditions that would be placed in MAQP #4845-01.

#### D. Vegetation Cover, Quantity, and Quality

The proposed project would have minor impacts on the surrounding vegetation because of construction of the facility. The existing surrounding land is currently industrial in nature. The PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from this project may have a minor effect on the surrounding vegetation; however, the air quality permit associated with this project would contain limitations to minimize the effect of the emissions on the surrounding environment. Overall, this project would have minor effects on the vegetation cover, quantity and quality.

#### E. Aesthetics

Addition of the two new bins would have minor impacts on the surrounding property from both the visual perspective, as well as noise pollution. The new bins are being added adjacent to the existing storage bins. The Department determined the addition of two more storage bins does not change the aesthetic value of the site since the site is already an operating grain elevator.

## F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because the facility would emit the following air pollutants: PM, PM<sub>10</sub>, and PM<sub>2.5</sub>. These emissions would be minimized by limitations and conditions that would be included in MAQP #4845-01. While deposition of pollutants would occur as a result of two new storage bins, the Department determined that the impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants, the atmosphere (wind speed, wind direction, ambient temperature, etc.), and conditions that would be placed in MAQP #4845-01. The air concentration of pollutants would be relatively small, and the corresponding deposition of those air pollutants would be minor.

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

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS) on the original permit application. The area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Search results identified no animal species of concern within the search radius. Because minor emissions and disturbance of the property and surroundings are anticipated, the Department has determined that there will be a minor disturbance to unidentified unique, endangered, fragile, or limited environmental resources in the area.

#### H. Sage Grouse Executive Order

General Habitat Area. The Department recognizes that the site location is not within a Greater Sage Grouse General Habitat Area as defined by Executive Order No. 12-2015.

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

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

The proposed project would be expected to have minor impacts on the demand for the environmental resource of energy because of additional energy usage would be required at the site. The impact on the demand for the environmental resource of energy would be minor because the facility would be relatively small by industrial standards. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

## J. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites located near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO) on the original permit application. According to SHPO

records, a single previously recorded site was noted in the vicinity the project, however, not on the subject property. SHPO stated that there is a low likelihood cultural properties would be impacted by this project. Therefore, the Department determined that the chance of the additional storage bins impacting any historical and archaeological sites in the area would be minor.

## K. Cumulative and Secondary Impacts

The proposed project would cause minor effects on the physical and biological aspects of the human environment because the project would cause a slight increase in emissions of PM, PM<sub>10</sub>, and PM<sub>2.5</sub> in the proposed area. However, conditions have been placed in MAQP #4845-01 to ensure that only minor air quality impacts would occur. Limitations would be established in the permit to minimize air pollution. Overall, any impacts to the physical and biological environment would be minor.

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

#### A. Social Structures and Mores

The proposed project would not cause disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project is located in a moderately remote area predominately used for agricultural purposes. The proposed addition of two new storage bins would not change the predominant use of the facility since it is already an operating grain elevator.

## B. Cultural Uniqueness and Diversity

Only minor impacts to the cultural uniqueness and diversity of the area would be anticipated as the location is moderately remote and land use will remain for agricultural purposes. Operation of the two new storage bins is not expected to require additional employees. In addition, based on previous cultural resource inventories in the area, SHPO stated that there is a low likelihood cultural properties will be impacted. Therefore, the cultural uniqueness and diversity of the area would not likely be affected.

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

The proposed project would result in minor impacts to the local and state tax base and tax revenue as a result of the proposed project. However, the proposed project would necessitate construction activities. However, any construction related jobs would be temporary and any corresponding impacts on the tax base/revenue in the area would be minor. Overall, any impacts to the local and state tax base and tax revenue would be minor.

## D. Agricultural or Industrial Production

The land at the proposed location is currently used for agricultural purposes. The proposed project would have a minor impact on agricultural production as area farmers already have access to the existing facility. However, because the facility expansion would be relatively small by industrial standards, only minor impacts to industrial production would be expected.

#### E. Human Health

The proposed project would result in minor, if any, impacts to human health. As explained in Section 7.F of this EA, deposition of pollutants would occur; however, the Department determined that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Overall any impacts to public health would be minor.

## F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would be implemented within an area currently utilized for agricultural purposes. No impacts to access and quality of recreational and wilderness activities in the project area are anticipated.

## G. Quantity and Distribution of Employment

The proposed project would have minor impacts on the quantity and distribution of employment as a limited number of temporary construction employees would be hired as a result of the proposed project. Any impacts to the quantity and distribution of employment would be minor due to the relatively small size of the facility.

## H. Distribution of Population

The proposed project would have minor impacts on the employment and population of the area as only temporary construction employees would be required for the addition of the two new storage bins. However, any impacts to the quantity and distribution of employment from construction related employment would be minor due to the relatively small size of the facility and the relatively short time period that would be required for constructing the facility. Overall, any impacts to the distribution of population in the area would be minor.

## I. Demands of Government Services

There would be minor impacts on the demands for government services because additional time would be required by government agencies to issue MAQP #4845-01 and, in the future, to assure compliance with applicable rules, standards, and conditions that would be contained in MAQP #4845-01. Overall, any demands for government services to regulate the facility or activities associated with the facility would be minor due to the relatively small size of the facility.

## J. Industrial and Commercial Activity

Only minor impacts would be expected on local industrial and commercial activity because the proposed project would represent only a minor increase in the industrial and commercial activity in the area. The addition of two new storage bins would be relatively small expansion and would take place at the existing facility location.

## K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals affected by issuing MAQP #4845-01. This permit would contain limits for protecting air quality and keeping facility emissions in compliance with any applicable ambient air quality standards. Because the project is small, any impacts from the facility would be minor.

## L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the project, the industrial production, employment, and tax revenue (etc.) impacts resulting from the proposed project would be minor. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #4845-01.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the addition of two new storage bins at the existing grain elevator. MAQP #4845-01 would include conditions and limitations to ensure the facility would operate in compliance with all applicable air quality rules and regulations. In addition, there are no major or unknown effects associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Natural Heritage Program and the Montana Historical Society.

Individuals or groups contributing to this EA: Montana Department of Environmental Quality, Montana Natural Heritage Program, Montana Historical Society.

EA prepared by: C. Henrikson Date: September 2, 2016