

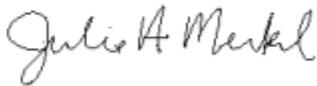
December 15, 2017

Montana Specialty Mills, LLC  
701 2<sup>nd</sup> Street South  
Great Falls, MT 59405

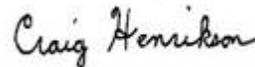
Dear Mr. Chambers:

Montana Air Quality Permit #5190-00 is deemed final as of December 15, 2017, 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  
Air Quality Bureau  
(406) 444-3626



Craig Henrikson, P.E.  
Environmental Engineer  
Air Quality Bureau  
(406) 444-1452

JM:CH  
Enclosures

Montana Department of Environmental Quality  
Air, Energy & Mining Division

Montana Air Quality Permit #5190-00

Montana Specialty Mills, LLC  
701 2<sup>nd</sup> Street South  
Great Falls, MT 59405

December 15, 2017





4. MSM shall fire the 1.0 MMBTU/hr high pressure boiler and 8.215 MMBTU/hr low pressure boiler on natural gas only (ARM 17.8.752).
5. MSM shall install and operate a grain loadout spout, or a similar apparatus, from the hopper discharge to the railcar to minimize drop distance (ARM 17.8.752).
6. MSM shall complete the following processes in an enclosed building to control particulate emissions: weigh, clean, screen and hammermill processing (ARM 17.8.752).
7. MSM shall convey seed from receiving to storage and from storage to the crush plant inside the building by an enclosed conveyor and leg system (ARM 17.8.752).
8. MSM 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.1. MSM shall limit the speed of the trucks entering and exiting the facility to reduce dust generation (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).
2. The Department of Environmental Quality (Department) may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

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

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). MSM shall submit the following information annually to the Department by February 15<sup>th</sup> of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

- a. Annual seed throughput.
- b. Estimated amount of fuel consumed by the 1.0 MMBTU/hr high pressure boiler and 8.215 MMBTU/hr low pressure boiler.

- c. Hours of operation of the high pressure and low pressure boiler.
2. MSM 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. The notice must be submitted to the Department, 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 MSM 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. These records may be stored at a location other than the plant site upon approval by the Department (ARM 17.8.749).
  4. MSM shall document, by month, the oil seed throughput. By the 25<sup>th</sup> day of each month, MSM shall total the seed throughput for the previous 12 months. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

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

1. Within 15 days after the actual start-up date of the oil seed processing plant, MSM shall submit written notification to the Department of the initial start-up date of the affected equipment.

Section III: General Conditions

- A. Inspection – MSM 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 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 MSM fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving MSM 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 therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by 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 MSM 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  
Montana Specialty Mills, LLC  
MAQP #5190-00

I. Introduction/Process Description

Montana Specialty Mills, LLC. (MSM) is proposing to construct operate a grain elevator, vegetable oil mill and processing plant. The facility will have permanent grain/seed storage capacity of approximately 100,000 bushels (bu) with shipping and receiving capacity of 5,000 bu per hour (bu/hr). The seed goes through an extruder and presser to extract the oil from the seed. The facility will also utilize two natural gas-fired boilers, one high-pressure with a capacity of one million British thermal units per hour (MMBTU/hour) and one low-pressure with capacity of 8.215 MMBTU/hour. MSM's proposed location is in a developing industrial area. The proposed location is approximately four miles northeast of central Great Falls located at the Section 34, Township 21 North, 4 East, Cascade County, Montana.

A. Permitted Equipment

Equipment used at this facility will include, but is not limited to the following:

- Seed receiving storage capacity of 100,000 bushels
- One crush plant 150 ton/day capacity
- Scale for crush plant 1000 bu/hr capacity
- Screen 5000 bu/day capacity
- Extruder 200 ton/day capacity, enclosed
- Presser 200 ton/day capacity, enclosed
- Cooler 200 ton/day, enclosed
- Hammermill 150 ton/day, capacity
- 4 Meal storage bins- 10,000 bushels capacity
- Rail and Truck Receiving 5000 bu/hr capacity
- Rail and Truck Shipping 10000 bu/hr capacity

B. Source Description

The seed is received from either hopper truck or rail. The facility has a storage capacity of 100,000 bushels. From storage, the seed is transported through an enclosed conveyor into the processing building. The seed is weighed conveyed to the crush plant. The remaining product is either screened and shipped out, or moves to the extruder. The extruder uses pressure and friction to extract oil from the seed. The seed and oil moves to the presses to further extract oil from the seed. The oil is shipped out and the remaining solids are cooled and then processed through the hammermill. The meal is shipped out by rail or truck. The oil processing is enclosed and is not expected to release any air emissions. There will be steam released once the meal is cooled.

C. Comments on Preliminary Determination

The BACT analysis from the PD was reviewed with the source in regards to the speed limit of haul trucks and as a result the BACT analysis was slightly modified as well as the condition in Section II.A.8. Specifically, the maximum speed limit of 15 miles per hour was removed from the BACT determination as it was not part of the BACT analysis submitted by the source.

Permit Reference	Comment
BACT Analysis for Fugitive Road Dust and Section II.A.8.	The BACT discussion for vehicle speeds and associated condition II.A.8 were modified from the PD.

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 (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. 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 the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

MSM 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 the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM10
11. ARM 17.8.230 Fluoride in Forage

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

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, MSM 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 17.8.316 Incinerators. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any incinerator, particulate matter in excess of 0.10 grains per standard cubic foot of dry flue gas, adjusted to 12% carbon dioxide and calculated as if no auxiliary fuel had been used. Further, no person shall cause or authorize to

be discharged into the outdoor atmosphere from any incinerator emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes.

6. 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.
7. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
8. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.
9. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate. This facility is not subject to 40 CFR Part 61.
10. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63. This facility is not subject to 40 CFR Part 63.

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. MSM 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 the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of

these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the uncontrolled potential to emit (PTE) greater than 25 tons per year of any pollutant. MSM has an uncontrolled PTE greater than 25 tons per year of particulate matter (PM), PM with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) and PM with an aerodynamic diameter of 2.5 microns or less (PM<sub>2.5</sub>); therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. MSM 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. MSM submitted an affidavit of publication of public notice for the September 18, 2017, issue of the *Great Falls Tribune*, a newspaper of general circulation in the Town of Great Falls in Cascade County, as proof of compliance with the public notice requirements.
  6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving MSM of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department'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 the Department.

16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department 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:

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

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

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

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

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

- a. PTE > 100 tons/year of any pollutant;
- b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
- c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (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 #5190-00 for MSM, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to any current NSPS.
  - e. This facility is not subject to any current NESHAP standards.
  - 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.

MSM potential emissions are below major source permitting thresholds. Therefore, the facility is not a major source and thus a Title V operating permit is not required.

### III. BACT Determination

A BACT determination is required for each new or modified source. MSM 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.

A BACT analysis was submitted by MSM in permit application #5190-00, addressing some available methods of controlling particulate matter emissions from processing dry seed. The Department reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determination.

#### Dry Seed Processing Transporting, Shipping, Receiving and Processing

##### A. Baghouse

MSM has proposed the use of a fabric filter baghouse to capture the particulate matter from the shipping, receiving and transporting the seed to/from the processing building. The efficiency of capture of particulate matter for the fabric filter baghouse is expected to be 99.9%. Because MSM has proposed a particulate matter emissions control technology that is considered to be the best performing for these types of applications, no other technologies were contemplated. MSM shall use a rubber boot loud-out spout to control particulate emissions during shipping and receiving activities.

The Department determined that this equipment shall be operated to ensure compliance with the general opacity rule of 20% opacity and constitutes BACT for this source.

B. Enclosed Equipment/Building Seed Processing

The use of enclosed equipment and building for seed transporting (enclosed conveyors and legs), weighing, crushing, oil extraction, oil refining and hammermill processing serves to isolate these activities from wind disturbance that could mobilize dust generated during transfer activities. Control efficiencies of enclosures around conveyors and legs are up to 99%. It is estimated the control efficiency associated with conducting activities inside the building at least 90%. MSM has determined that the installation of enclosed equipment and conducting seed solids and oil activities inside the building constitutes BACT for the operations at this location.

The Department determined that the enclosures shall be installed and maintained to ensure compliance with the general opacity rule of 20% opacity and constitutes BACT for this source.

C. Boilers, Building Heat and Meal Cooling

Combustion emissions from the boilers are minimized by limiting the fuel to natural gas. MSM has determined that the use of natural gas to fire the boilers constitutes BACT for the operations at this location.

Based on our review of the options, MSM is proposing to install, operate, and maintain the following emission control methods for BACT:

Unpaved Haul Roadway and Parking Area:

Fugitive dust emissions generated from truck traffic associated with the facility operations will be addressed in accordance with a fugitive dust control plan for the facility. Control measures will consist of the application of chemical compounds and/or water as appropriate during dry conditions. Drivers will be instructed to limit their vehicle speed to reduce road dust. It should be noted that the roads leading to the facility are paved.

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.

#### IV. Emission Inventory

Emission Source	TPY								Total HAPs
	Pm <sub>fil</sub>	PM <sub>10fil</sub>	PM <sub>2.5fil</sub>	PM <sub>con</sub>	NO <sub>x</sub>	CO	VOC	SO <sub>2</sub>	
Truck and Railcar Receiving	0.10	0.02	0.00	--	--	--	--	--	--
Storage Bins	13.69	3.45	0.60	--	--	--	--	--	--
Conveyors	0.18	0.11	0.03	--	--	--	--	--	--
Headhouse and Seed Handling	0.18	0.11	0.03	--	--	--	--	--	--
Scales	3.34	1.86	0.32	--	--	--	--	--	--
Grain Cleaning	1.00	0.56	0.10	--	--	--	--	--	--
Screening	3.34	1.86	0.32	--	--	--	--	--	--
Hammermill	3.34	1.86	0.32	--	--	--	--	--	--
Shipping: Truck and Rail Loadout	0.12	0.09	0.03	--	--	--	--	--	--
Meal Storage Bins	1.107	0.279	0.049	--	--	--	--	--	--
Meal Shipping	0.020	0.015	0.004	--	--	--	--	--	--
High Pressure Boiler	0.008	0.008	0.008	0.024	0.429	0.361	0.024	0.003	0.008
Low Pressure Boiler	0.067	0.067	0.067	0.201	3.528	2.963	0.194	0.021	0.067
Haul Roads	0.54	0.15	0.01	--	--	--	--	--	--
<b>Total Emissions</b>	<b>27.04</b>	<b>10.44</b>	<b>1.89</b>	<b>0.23</b>	<b>3.96</b>	<b>3.32</b>	<b>0.22</b>	<b>0.02</b>	<b>0.07</b>

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

Max Process Rate = 1,095,000 ton/yr (Applicant Info)	1,095,000	
Hours of operation = 8760 hr/yr	0	ton/yr
Hopper truck	8,760	hr/yr

#### **PM Emissions:**

Emission Factor = 0.035 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Hopper Truck, 3/03)	0.035	lb/ton
PM > 10 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	99.5	%
Calculation: (1,095,000 ton/yr)*(0.035 lb/ton)*(ton/2000 lb) = 19.16 ton/yr (uncontrolled)	<b>19.16</b>	ton/yr
Calculation: ((19.16 ton/yr - 4.27 ton/yr)*(1 - 99.5%) + (0.02 ton/yr) = 0.10 ton/yr (controlled)	<b>0.10</b>	ton/yr

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

Emission Factor = 0.0078 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Hopper Truck, 3/03)	0.0078	lb/ton
PM ≤ 10 and > 2.5 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	99.5	%
Calculation: (1,095,000 ton/yr)*(0.0078 lb/ton)*(ton/2000 lb) = 4.27 ton/yr (uncontrolled)	<b>4.27</b>	ton/yr
Calculation: ((4.27 ton/yr - 0.71 ton/yr)*(1 - 99.5%) + (0.00 ton/yr) = 0.02 ton/yr (controlled)	<b>0.02</b>	ton/yr

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

Emission Factor = 0.0013 lb/ton (AP-42 Table 9.9.1-1, Grain Receiving Hopper Truck, 3/03)	0.0013	lb/ton
PM ≤ 2.5 µm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	99.5	%
Calculation: (1,095,000 ton/yr)*(0.0013 lb/ton)*(ton/2000 lb) = 0.71 ton/yr (uncontrolled)	<b>0.71</b>	ton/yr
Calculation: (0.71 ton/yr)*(1 - 99.5%) = 0.00 ton/yr (controlled)	<b>0.00</b>	ton/yr

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

Max Process Rate = 1,095,000 ton/yr (Applicant Info)	<b>1,095,000</b>	ton/yr
Hours of operation = 8760 hr/yr	<b>8,760</b>	hr/yr

#### PM Emissions:

Emission Factor = 0.025 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	<b>0.025</b>	lb/ton
Calculation: (1,095,000 ton/yr)*(0.025 lb/ton)*(ton/2000 lb) = 13.69 ton/yr (uncontrolled)	<b>13.69</b>	ton/yr

PM10 Emissions:

Emission Factor = 0.0063 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03) **0.0063** lb/ton  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.0063 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 3.45 \text{ ton/yr}$  (uncontrolled) **3.45** ton/yr

PM2.5 Emissions:

Emission Factor = 0.0011 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03) **0.0011** lb/ton  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.0011 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 0.60 \text{ ton/yr}$  (uncontrolled) **0.60** ton/yr

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

Max Process Rate = 1,095,000 ton/yr (Applicant Info) **1,095,000** ton/yr  
 Hours of operation = 8760 hr/yr **8,760** hr/yr

PM Emissions:

Emission Factor = 0.061 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03) **0.061** lb/ton  
 PM > 10 μm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp) **99.5** %  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.061 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 33.40 \text{ ton/yr}$  (uncontrolled) **33.40** ton/yr  
 Calculation:  $((33.40 \text{ ton/yr} - 18.62 \text{ ton/yr}) \times (1 - 99.5\%)) + (0.11 \text{ ton/yr}) = 0.18 \text{ ton/yr}$  (controlled) **0.18** ton/yr

PM10 Emissions:

Emission Factor = 0.034 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03) **0.034** lb/ton  
 PM ≤ 10 and > 2.5 μm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp) **99.5** %  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.034 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 18.62 \text{ ton/yr}$  (uncontrolled) **18.62** ton/yr  
 Calculation:  $((18.62 \text{ ton/yr} - 3.18 \text{ ton/yr}) \times (1 - 99.5\%)) + (0.03 \text{ ton/yr}) = 0.11 \text{ ton/yr}$  (controlled) **0.11** ton/yr

PM2.5 Emissions:

Emission Factor = 0.0058 lb/ton (AP-42 Table 9.9.1-1, Headhouse & grain handling, 3/03) **0.0058** lb/ton  
 PM ≤ 2.5 μm Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp) **99** %  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.0058 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 3.18 \text{ ton/yr}$  (uncontrolled) **3.18** ton/yr  
 Calculation:  $(3.18 \text{ ton/yr}) \times (1 - 99\%) = 0.03 \text{ ton/yr}$  (controlled) **0.03** ton/yr

**Weigh hopper/ScaleHeadhouse and grain handling SCC-3-02-005-30 (scale)**

Max Process Rate = 1,095,000 ton/yr (Applicant Info) **1,095,000** ton/yr  
 Hours of operation = 8760 hr/yr **8,760** hr/yr

PM Emissions:

Emission Factor = 0.06 lb/ton (AP 42 Table 9.9.1-1) **0.06** lb/ton  
 Control Efficiency = 90% (Applicant Info- in building vented out) **90** %  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.06 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 33.40 \text{ ton/yr}$  (uncontrolled) **33.40** ton/yr  
 Calculation:  $((33.40 \text{ ton/yr} - 18.62 \text{ ton/yr}) \times (1 - 90\%)) + (1.86 \text{ ton/yr}) = 3.34 \text{ ton/yr}$  (controlled) **3.34** ton/yr

PM10 Emissions:

Emission Factor = 0.034 lb/ton (Uncontrolled, calculated above) **0.034** lb/ton  
 PM ≤ 10 and > 2.5 μm Control Efficiency = 90% (Applicant Info- in building vented out) **90** %  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.034 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 18.62 \text{ ton/yr}$  (uncontrolled) **18.62** ton/yr  
 Calculation:  $((18.62 \text{ ton/yr} - 3.18 \text{ ton/yr}) \times (1 - 90\%)) + (0.32 \text{ ton/yr}) = 1.86 \text{ ton/yr}$  (controlled) **1.86** ton/yr

PM2.5 Emissions:

Emission Factor = 0.006 lb/ton (Uncontrolled, calculated above) **0.006** lb/ton  
 PM ≤ 2.5 μm Control Efficiency = 90% (Applicant Info- in building vented out) **90** %  
 Calculation:  $(1,095,000 \text{ ton/yr}) \times (0.006 \text{ lb/ton}) \times (\text{ton}/2000 \text{ lb}) = 3.18 \text{ ton/yr}$  (uncontrolled) **3.18** ton/yr  
 Calculation:  $(3.18 \text{ ton/yr}) \times (1 - 90\%) = 0.32 \text{ ton/yr}$  (controlled) **0.32** ton/yr

**CLEANING--Headhouse and grain handling SCC-3-02-005-30 (enclosed cleaners)**

Maximum Process Rate = 328,500 ton/yr	<b>328,500</b>	ton/yr
Number of Cleaning Cycles = 1 cycles (one received, one loadout)	<b>1</b>	cycles
PM Emissions:		
Emission Factor = 0.061 lb/ton	<b>0.061</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (328,500 ton/yr) * (0.061 lb/ton) * (ton/2000 lb) = 10.02 ton/yr (Uncontrolled)	<b>10.02</b>	ton/yr
Calculation: (1) * (328,500 ton/yr) * (0.061 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 1.00 ton/yr (Controlled)	<b>1.00</b>	ton/yr
PM-10 Emissions:		
Emission Factor = 0.034 lb/ton	<b>0.034</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (328,500 ton/yr) * (0.034 lb/ton) * (ton/2000 lb) = 5.58 ton/yr (Uncontrolled)	<b>5.58</b>	ton/yr
Calculation: (1) * (328,500 ton/yr) * (0.034 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 0.56 ton/yr (Controlled)	<b>0.56</b>	ton/yr
PM-2.5 Emissions:		
Emission Factor = 0.006 lb/ton	<b>0.0058</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (328,500 ton/yr) * (0.0058 lb/ton) * (ton/2000 lb) = 0.95 ton/yr (Uncontrolled)	<b>0.95</b>	ton/yr
Calculation: (1) * (328,500 ton/yr) * (0.0058 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 0.10 ton/yr (Controlled)	<b>0.10</b>	ton/yr

**Screening --Headhouse and grain handling SCC-3-02-005-30 (screening)**

Maximum Process Rate = 1,095,000 ton/yr	<b>1,095,000</b>	ton/yr
Number of Cleaning Cycles = 1 cycles (one received, one loadout)	<b>1</b>	cycles
PM Emissions:		
Emission Factor = 0.061 lb/ton	<b>0.061</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (1,095,000 ton/yr) * (0.061 lb/ton) * (ton/2000 lb) = 33.40 ton/yr (Uncontrolled)	<b>33.40</b>	ton/yr
Calculation: (1) * (1,095,000 ton/yr) * (0.061 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 3.34 ton/yr (Controlled)	<b>3.34</b>	ton/yr
PM-10 Emissions:		
Emission Factor = 0.034 lb/ton	<b>0.034</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (1,095,000 ton/yr) * (0.034 lb/ton) * (ton/2000 lb) = 18.62 ton/yr (Uncontrolled)	<b>18.62</b>	ton/yr
Calculation: (1) * (1,095,000 ton/yr) * (0.034 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 1.86 ton/yr (Controlled)	<b>1.86</b>	ton/yr
PM-2.5 Emissions:		
Emission Factor = 0.006 lb/ton	<b>0.0058</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (1,095,000 ton/yr) * (0.0058 lb/ton) * (ton/2000 lb) = 3.18 ton/yr (Uncontrolled)	<b>3.18</b>	ton/yr
Calculation: (1) * (1,095,000 ton/yr) * (0.0058 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 0.32 ton/yr (Controlled)	<b>0.32</b>	ton/yr

**Hammermill Headhouse and grain handling SCC-3-02-005-30 (enclosed building)**

Maximum Process Rate = 1,095,000 ton/yr	<b>1,095,000</b>	ton/yr
Number of Cleaning Cycles = 1 cycles (one received, one loadout)	<b>1</b>	cycles
PM Emissions:		
Emission Factor = 0.061 lb/ton	<b>0.061</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: (1) * (1,095,000 ton/yr) * (0.061 lb/ton) * (ton/2000 lb) = 33.40 ton/yr (Uncontrolled)	<b>33.40</b>	ton/yr
Calculation: (1) * (1,095,000 ton/yr) * (0.061 lb/ton) * (ton/2000 lb) * (1 - 90/100) = 3.34 ton/yr (Controlled)	<b>3.34</b>	ton/yr

PM-10 Emissions:

Emission Factor = 0.034 lb/ton	<b>0.034</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: $(1) * (1,095,000 \text{ ton/yr}) * (0.034 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 18.62 \text{ ton/yr}$ (Uncontrolled)	<b>18.62</b>	ton/yr
Calculation: $(1) * (1,095,000 \text{ ton/yr}) * (0.034 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 90/100) = 1.86 \text{ ton/yr}$ (Controlled)	<b>1.86</b>	ton/yr

PM-2.5 Emissions:

Emission Factor = 0.006 lb/ton	<b>0.0058</b>	lb/ton
PM Control Efficiency = 90%	<b>90</b>	%
Calculation: $(1) * (1,095,000 \text{ ton/yr}) * (0.0058 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 3.18 \text{ ton/yr}$ (Uncontrolled)	<b>3.18</b>	ton/yr
Calculation: $(1) * (1,095,000 \text{ ton/yr}) * (0.0058 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 90/100) = 0.32 \text{ ton/yr}$ (Controlled)	<b>0.32</b>	ton/yr

**Loadout – SCC 3-02-005-60**

Max Process Rate = 1,095,000 ton/yr (Applicant Info)	<b>1,095,000</b>	ton/yr
Hours of operation = 8760 hr/yr	<b>8,760</b>	hr/yr

PM Emissions:

Emission Factor = 0.086 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	<b>0.086</b>	lb/ton
PM > 10 $\mu\text{m}$ Control Efficiency = 99.9% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	<b>99.9</b>	%
Calculation: $(1,095,000 \text{ ton/yr}) * (0.086 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 47.09 \text{ ton/yr}$ (uncontrolled)	<b>47.09</b>	ton/yr
Calculation: $((47.09 \text{ ton/yr} - 15.88 \text{ ton/yr}) * (1 - 99.9\%)) + (0.09 \text{ ton/yr}) = 0.12 \text{ ton/yr}$ (controlled)	<b>0.12</b>	ton/yr

PM10 Emissions:

Emission Factor = 0.029 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	<b>0.029</b>	lb/ton
PM $\leq 10$ and $> 2.5 \mu\text{m}$ Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	<b>99.5</b>	%
Calculation: $(1,095,000 \text{ ton/yr}) * (0.029 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 15.88 \text{ ton/yr}$ (uncontrolled)	<b>15.88</b>	ton/yr
Calculation: $((15.88 \text{ ton/yr} - 2.68 \text{ ton/yr}) * (1 - 99.5\%)) + (0.03 \text{ ton/yr}) = 0.09 \text{ ton/yr}$ (controlled)	<b>0.09</b>	ton/yr

PM2.5 Emissions:

Emission Factor = 0.0049 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	<b>0.0049</b>	lb/ton
PM $\leq 2.5 \mu\text{m}$ Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	<b>99</b>	%
Calculation: $(1,095,000 \text{ ton/yr}) * (0.0049 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 2.68 \text{ ton/yr}$ (uncontrolled)	<b>2.68</b>	ton/yr
Calculation: $(2.68 \text{ ton/yr}) * (1 - 99\%) = 0.03 \text{ ton/yr}$ (controlled)	<b>0.03</b>	ton/yr

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

Max Process Rate = 177,135 ton/yr (Applicant Info)	<b>177,135</b>	ton/yr
Hours of operation = 8760 hr/yr	<b>8,760</b>	hr/yr

PM Emissions:

Emission Factor = 0.025 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	<b>0.025</b>	lb/ton
PM > 10 $\mu\text{m}$ Control Efficiency = 50% Product is wet 5%-7%	<b>50</b>	%
Calculation: $(177,135 \text{ ton/yr}) * (0.025 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 2.21 \text{ ton/yr}$ (uncontrolled)	<b>2.21</b>	ton/yr
Calculation: $((2.21 \text{ ton/yr} - 0.56 \text{ ton/yr}) * (1 - 50\%)) + (0.279 \text{ ton/yr}) = 1.107 \text{ ton/yr}$ (controlled)	<b>1.107</b>	ton/yr

PM10 Emissions:

Emission Factor = 0.0063 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	<b>0.0063</b>	lb/ton
PM $\leq 10$ and $> 2.5 \mu\text{m}$ Control Efficiency = 50%	<b>50</b>	%
Calculation: $(177,135 \text{ ton/yr}) * (0.0063 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.56 \text{ ton/yr}$ (uncontrolled)	<b>0.56</b>	ton/yr
Calculation: $((0.56 \text{ ton/yr} - 0.10 \text{ ton/yr}) * (1 - 50\%)) + (0.049 \text{ ton/yr}) = 0.279 \text{ ton/yr}$ (controlled)	<b>0.279</b>	ton/yr

PM2.5 Emissions:

Emission Factor = 0.0011 lb/ton (AP-42 Table 9.9.1-1, Storage bin (vent), 3/03)	<b>0.0011</b>	lb/ton
PM ≤ 2.5 μm Control Efficiency = 50% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	<b>50</b>	%
Calculation: (177,135 ton/yr)*(0.0011 lb/ton)*(ton/2000 lb) = 0.10 ton/yr (uncontrolled)	<b>0.10</b>	ton/yr
Calculation: (0.10 ton/yr)*(1 - 50%) = 0.049 ton/yr (controlled)	<b>0.049</b>	ton/yr

**Loadout – SCC 3-02-005-60**

Max Process Rate = 177,135 ton/yr (Applicant Info)	<b>177,135</b>	ton/yr
Hours of operation = 8760 hr/yr	<b>8,760</b>	hr/yr

PM Emissions:

Emission Factor = 0.086 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	<b>0.086</b>	lb/ton
PM > 10 μm Control Efficiency = 99.9% (Applicant Info)	<b>99.9</b>	%
Calculation: (177,135 ton/yr)*(0.086 lb/ton)*(ton/2000 lb) = 7.62 ton/yr (uncontrolled)	<b>7.62</b>	ton/yr
Calculation: ((7.62 ton/yr - 2.57 ton/yr)*(1 - 99.9%) + (0.02 ton/yr) = 0.02 ton/yr (controlled)	<b>0.02</b>	ton/yr

PM10 Emissions:

Emission Factor = 0.029 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	<b>0.029</b>	lb/ton
PM ≤ 10 and > 2.5 μm Control Efficiency = 99.5% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	<b>99.5</b>	%
Calculation: (177,135 ton/yr)*(0.029 lb/ton)*(ton/2000 lb) = 2.57 ton/yr (uncontrolled)	<b>2.57</b>	ton/yr
Calculation: ((2.57 ton/yr - 0.43 ton/yr)*(1 - 99.5%) + (0.004 ton/yr) = 0.02 ton/yr (controlled)	<b>0.02</b>	ton/yr

PM2.5 Emissions:

Emission Factor = 0.0049 lb/ton (AP-42 Table 9.9.1-1, Grain shipping - Truck, 3/03)	<b>0.0049</b>	lb/ton
PM ≤ 2.5 μm Control Efficiency = 99% (AP-42, Appendix B.2, Table B.2-3, Fabric filter low temp)	<b>99</b>	%
Calculation: (177,135 ton/yr)*(0.0049 lb/ton)*(ton/2000 lb) = 0.43 ton/yr (uncontrolled)	<b>0.43</b>	ton/yr
Calculation: (0.43 ton/yr)*(1 - 99%) = 0.004 ton/yr (controlled)	<b>0.004</b>	ton/yr

Haul Roads

<b>Vehicle Miles Traveled (VMT) per Day = 5 VMT /day (Department estimate)</b>	<b>5</b>	VMT /day
VMT per hour = (5 VMT /day) / (day/24 hrs) = 0.21 VMT / hr	<b>0.21</b>	VMT / hr
Hours of Operation = 8,760 hrs/yr	<b>8,760</b>	hrs/yr
Precip days = 120 days/yr (from AP-42, Figure 13.2.2-1)	<b>120</b>	days/yr

PM Emissions:

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = $k * (s / 12)^a * (W / 3)^b = 9.88$ lb/VMT	<b>9.88</b>	lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	<b>4.9</b>	lbs/VMT
s = surface silt content = 6.4 % (Municipal Solid Waste Landfill, Table 13.2.2-3, 11/06)	<b>6.4</b>	%
W = mean vehicle weight = 37.88 tons (Applicant info)	<b>38</b>	tons
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	<b>0.7</b>	
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	<b>0.45</b>	
Control Efficiency = 67.12% ((365 - 120)/365 natural mitigation)	<b>67.12</b>	%
Control Efficiency = 91% (Combined speed limit and dust suppression, WRAP Fugitive Dust Control Handbook)	<b>91</b>	%
Calculation: (8760 hrs/yr) * (0.21 VMT / hr) * (9.88 lb/VMT) * (ton/2000 lb) = 9.01 tons/yr (Uncontrolled Emissions)	<b>9.01</b>	tons/yr
Calculation: (8760 hrs/yr) * (0.21 VMT / hr) * (9.88 lb/VMT) * (ton/2000 lb) * (67.12/100) = 6.05 tons/yr (Apply natural mitigation correction)	<b>6.05</b>	tons/yr
Calculation: (6.05 tons/yr) * (1 - 91/100) = 0.54 tons/yr (Controlled Emissions)	<b>0.54</b>	tons/yr

PM10 Emissions:

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

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 2.67 \text{ lb/VMT}$	<b>2.67</b>	lb/VMT
Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	<b>1.5</b>	lbs/VMT
s = surface silt content = 6.4 % (Municipal Solid Waste Landfill, Table 13.2.2-3, 11/06)	<b>6.4</b>	%
W = mean vehicle weight = 37.88 tons (Applicant info)	<b>38</b>	tons
a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	<b>0.9</b>	
b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	<b>0.45</b>	
Control Efficiency = 67.12% ((365 - 120)/365 natural mitigation)	<b>67.12</b>	%
Control Efficiency = 91% (Combined speed limit and dust suppression, WRAP Fugitive Dust Control Handbook)	<b>91</b>	%
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT / hr}) * (2.67 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 2.43 \text{ tons/yr}$ (Uncontrolled Emissions)	<b>2.43</b>	tons/yr
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT / hr}) * (2.67 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (67.12/100) = 1.63 \text{ tons/yr}$ (Apply natural mitigation correction)	<b>1.63</b>	tons/yr
Calculation: $(1.63 \text{ tons/yr}) * (1 - 91/100) = 0.15 \text{ tons/yr}$ (Controlled Emissions)	<b>0.15</b>	tons/yr

PM2.5 Emissions:

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

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 0.27 \text{ lb/VMT}$	<b>0.27</b>	lb/VMT
Where: k = constant = 0.15 lbs/VMT (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)	<b>0.15</b>	lbs/VMT
s = surface silt content = 6.4 % (Municipal Solid Waste Landfill, Table 13.2.2-3, 11/06)	<b>6.4</b>	%
W = mean vehicle weight = 37.88 tons (Applicant info)	<b>38</b>	tons
a = constant = 0.9 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)	<b>0.9</b>	
b = constant = 0.45 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)	<b>0.45</b>	
Control Efficiency = 67.12% ((365 - 120)/365 natural mitigation)	<b>67.12</b>	%
Control Efficiency = 91% (Combined speed limit and dust suppression, WRAP Fugitive Dust Control Handbook)	<b>91</b>	%
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT / hr}) * (0.27 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 0.24 \text{ tons/yr}$ (Uncontrolled Emissions)	<b>0.24</b>	tons/yr
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT / hr}) * (0.27 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (67.12/100) = 0.16 \text{ tons/yr}$ (Apply natural mitigation correction)	<b>0.16</b>	tons/yr
Calculation: $(0.16 \text{ tons/yr}) * (1 - 91/100) = 0.01 \text{ tons/yr}$ (Controlled Emissions)	<b>0.01</b>	tons/yr

**High pressure natural gas boilers 1MMBtu/hr total**

fuel combustion rate	1.00	MMBtu/hr
hours of operation annual	8,760	hr/yr
		covert from lb/MMscf to
	0.0010	lb/MMBtu
<b>PM=PM10=PM2.5 (total)</b>		
EF	<b>7.60</b>	lb/MMscf
Calculation: $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (7.6 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.03 \text{ TPY}$	<b>0.0326</b>	TPY
<b>PM2.5 (condensable)</b>		
EF	5.70	lb/MMscf
Calculation: $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (5.7 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.02 \text{ TPY}$	0.0245	TPY
<b>PM2.5 (filterable)</b>		
EF	<b>1.90</b>	lb/MMscf
Calculation: $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (1.9 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.01 \text{ TPY}$	<b>0.0082</b>	TPY

**lead**

EF

**0.0005** lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (0.0005 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.00 \text{ TPY}$

**0.0000021** TPY**SO2**

EF

0.6000 lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (0.6 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.00 \text{ TPY}$

**0.0026** TPY**TOC****EF**

11.00 lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (11) * (\text{ton}/2000 \text{ lb}) = 0.05 \text{ TPY}$

0.0472 TPY

Methane

EF

**2.30** lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (2.3 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.01 \text{ TPY}$

**0.0099** TPY**VOC**

EF

5.50 lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (5.5 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.02 \text{ TPY}$

**0.0236** TPY**NOx**

EF

**100** lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (100 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.43 \text{ TPY}$

**0.4294** TPY**CO**

EF

84 lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (1 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (84 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.36 \text{ TPY}$

0.3607 TPY

**Low pressure natural gas boiler 8.22 MMBtu/hr total**

fuel combustion rate

8.22 MMBtu/hr

hours of operation annual

8,760 hr/yr  
covert from  
lb/MMscf to  
lb/MMBtu

0.0010

**PM=PM10=PM2.5 (total)**

EF

**7.6000** lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (7.6 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.27 \text{ TPY}$

**0.2681** TPY

PM2.5 (condensable)

**EF**

5.7000 lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (5.7 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.20 \text{ TPY}$

0.2011 TPY

**PM2.5 (filterable)**

EF

**1.9000** lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (1.9 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.07 \text{ TPY}$

**0.0670** TPY**lead**

EF

**0.0005** lb/MMscf

Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (0.0005 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.00002 \text{ TPY}$

**0.0000**  
**176** TPY

**SO2**

EF 0.6000 lb/MMscf  
 Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (0.6 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.02 \text{ TPY}$  **0.0212** TPY

## TOC

**EF** 11.000 lb/MMscf  
 Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (11 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.39 \text{ TPY}$  0.3880 TPY

## Methane

EF **2.30** lb/MMscf  
 Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (2.3 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.08 \text{ TPY}$  **0.0811** TPY

**VOC**

EF 5.5000 lb/MMscf  
 Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (5.5 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 0.19 \text{ TPY}$  **0.1940** TPY

**NOx**

EF **100** lb/MMscf  
 Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (100 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 3.53 \text{ TPY}$  **3.5276** TPY

**CO**

EF 84 lb/MMscf  
 Calculation:  $(8760 \text{ hr/yr}) * (8 \text{ MMBtu/hr}) * (0.000980392156862745 \text{ covert from lb/MMscf to lb/MMBtu}) * (84 \text{ lb/MMscf}) * (\text{ton}/2000 \text{ lb}) = 2.96 \text{ TPY}$  2.9632 TPY

## V. Existing Air Quality

The proposed facility will operate about four miles northeast of central Great Falls, Montana at Section 34, 21 N Township, 4 East Range, Cascade County, Montana. The limitations and conditions in MAQP #5190-00 ensure the facility will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS).

## VI. Ambient Air Impact Analysis

The Department determined, based on the proposed area being in an existing industrial area, and limits taken within the permit that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to any violation 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	
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?
<b>YES</b>	<b>NO</b>	
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

#### VIII. Environmental Assessment

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

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Air, Energy & Mining Division**  
**Air Quality Bureau**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Montana Specialty Mills, LLC.  
701 2<sup>nd</sup> Street South  
Great Falls, MT 59405

*Montana Air Quality Permit number (MAQP):* #5190-00

*EA Draft:* 11/9/2017

*EA Final:* 11/29/2017

*Permit Final:* 12/15/2017

1. *Legal Description of Site:* MSM's seed oil processing facility would be located approximately four miles northeast of central Great Falls. The legal description of the site is located in Section 34, Township 20 North, Range 4 East in Cascade County, Montana. The area surrounding the facility is being developed as an industrial park.
2. *Description of Project:* Montana Specialty Mills, LLC. (MSM) is proposing to construct operate a grain elevator, vegetable oil mill and processing plant. The facility would have permanent grain/seed storage capacity of approximately 100,000 bushels (bu) with shipping and receiving capacity of 5,000 bu per hour (bu/hr). The seed goes through an extruder and presser to extract the oil from the seed. The facility would also utilize two natural gas-fired boilers, one high-pressure with a capacity of one million British thermal units per hour (MMBTU/hour) and one low-pressure with capacity of 8.215 MMBTU/hour. MSM's proposed location is in a developing industrial area. A complete list of the permitted equipment is included in Section I.A of the permit analysis.
3. *Objectives of Project:* The object of the project is to produce vegetable oil by processing canola and flax seed.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the MAQP to the facility. MSM would lack the process equipment to produce their product and could potentially lose business to competitors. Any potential air emission increases that would be authorized by issuing the MAQP would not occur. However, the Department does not consider the "no action" alternative to be appropriate because MSM has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration. Other alternatives considered were discussed in the Best Available Control Technology analysis.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #5190-00.

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.

#### 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 provide for the construction and operation of a facility which would provide seed storage. The facility would also utilize natural gas-fired boilers. Conditions requiring control mechanisms have been placed within MAQP #5190-00 to ensure that only minor air quality impacts would occur. Additionally, limitations established within MAQP #5190-00 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

The project has a Montana pollutant discharge elimination system (MPDES) permit. Therefore, the project would have minor 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. 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 #5190-00.

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

The proposed project would have minor impacts on the surrounding vegetation because of new construction at 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

Construction and operation of the facility would change the aesthetics of the current site but the surrounding area is being developed as an industrial park. The new facility would have minor impacts on the surrounding property from both the visual perspective, as well as noise pollution.

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>. A small amount of NO<sub>x</sub>, SO<sub>2</sub>, CO and VOCs will also be emitted by the natural gas boilers. These emissions would be minimized by limitations and conditions that would be included in MAQP #5190-00. While deposition of pollutants would occur as a result of the new facility, 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 #5190-00. 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. The Species of Concern Data Report include Westslope Cutthroat Trout, Greater Short-horned Lizard, Long-billed Curlew, Burrowing Owl, Plains Spadefoot, *Carex sychnocephala*, Golden Eagle, Horned Grebe, Merriam's Shrew, Little Brown Myotis, Dwarf Shrew, Preble's Shrew, and the Spotted Bat. Because emission increases are minor, and disturbance is at an industrial site, the Department has determined that there would be a minor disturbance to unidentified unique, endangered, fragile, or limited environmental resources in the area.

H. 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 the new equipment 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 increase. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

The State Historic Preservation Office (SHPO) conducted a cultural resource file search for the project's proposed location. According to their records, there have been no previously recorded sites within the designated project area. The absence of cultural properties in the area does not mean that they do not exist but rather may reflect the absence of previous cultural resource inventory in the area. 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. As long as there will be no disturbance or alteration to structures over fifty years of age there is a low likelihood cultural properties will be impacted.

J. 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 #5190-00 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 being constructed in a developing industrial area.

B. Cultural Uniqueness and Diversity

Only minor impacts to the cultural uniqueness and diversity of the area would be anticipated as the location is already largely industrial. Operation of the facility is not expected to impact the cultural uniqueness and diversity. In addition, based on the SHPO cultural resource inventory for the area, there is a low likelihood cultural properties will be impacted as there are no records for the area. 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 facility. Up to twelve employees may be employed at the facility. The proposed project would also provide temporary construction jobs. 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 industrial purposes and is being developed as a new industrial park. There are no agricultural production affects expected and possibly a minor increase for industrial production in the area may occur.

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 being developed for industrial 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 number of temporary construction employees would be hired as a result of the proposed project. Up to twelve employees may be employed at the facility full time. There would a small increase in employment for the area.

H. Distribution of Population

The proposed project would have minor impacts on the employment and population of the area as up to twelve employees and temporary construction employees would be required for 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 #5190-00 and, in the future, to assure compliance with applicable rules, standards, and conditions that would be contained in MAQP #5190-00. Overall, any demands for government services to regulate the facility or activities associated with the facility would be minor.

J. Industrial and Commercial Activity

Only minor impacts would be expected on local industrial and commercial activity because the proposed facility is replacing an existing facility which was shut down. The new facility may provide some additional services beyond what the previous facility provided but these would only provide a minor increase in industrial and commercial activity.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals affected by issuing MAQP #5190-00. This permit would contain limits for protecting air quality and keeping facility emissions in compliance with any applicable ambient air quality standards. Any impacts from the facility are expected to 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 facility replacing an existing facility that shut down, 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 #5190-00.

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 construction and operation of a vegetable oil processing facility. MAQP #5190-00 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: Loni Patterson  
Date: November 1, 2017