



Montana Department of  
**E**NVIRONMENTAL **Q**UALITY

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June 17, 2008

Mr. Pat Calnan, Owner  
TMK Construction, LLC  
PMB 2301  
1 Jackson Creek Road  
Montana City, MT 59634

Dear Mr. Calnan:

Air Quality Permit #4205-00 is deemed final as of June 17, 2008, by the Department of Environmental Quality (Department). This permit is for operation of a portable gravel crushing and screening facility. 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,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-9741

Paul Skubinna  
Environmental Engineer  
Air Resources Management Bureau  
(406) 444-6711

VW: PS: vs  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Air Quality Permit #4205-00

TMK Construction, LLC  
PMB 2301  
1 Jackson Creek Road  
Clancy, MT 59634

June 17, 2008



## AIR QUALITY PERMIT

Issued To:	TMK Construction, LLC	Permit: #4205-00
	PMB 2301	Application Complete: 03/31/08
	1 Jackson Creek Road	Preliminary Determination Issued: 05/09/08
	Clancy, MT 59634	Department's Decision Issued: 05/30/08
		Permit Final: 06/17/08
		AFS #: 777-4205

An air quality permit, with conditions, is hereby granted to TMK Construction, LLC (TMK) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

#### A. Permitted Equipment

TMK operates a portable crushing and screening operation. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

#### B. Plant Location

TMK operates a portable crushing/screening facility that will initially locate in the NE ¼ of Section 35, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. However, Permit #4205-00 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749).

5. TMK 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).
6. TMK shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).
7. TMK shall not operate more than one crusher at any given time and the maximum rated design capacity shall not exceed 300 tons per hour (TPH) (ARM 17.8.749)
8. Crushing production is limited to 2,628,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. TMK shall not operate more than one screen at any given time and the maximum rated design capacity shall not exceed 300 TPH (ARM 17.8.749).
10. Screening production is limited to 2,628,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. TMK shall not operate more than one direct-drive diesel engine to power the crusher and one diesel engine generator to power the screen and conveyors at any given time, and the maximum rated design capacity of the direct drive and generator engines shall not exceed 400 horsepower (hp) and 100 hp, respectively (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by TMK, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
13. TMK shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
14. TMK shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, for any applicable diesel engines (ARM 17.8.340, 40 CFR 60, Subpart III).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).

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

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. TMK 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 not be 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). TMK shall submit the following information annually to the Department by February 15 of each year, and may be submitted with the annual emission inventory (ARM 17.8.505):

- a. Annual crusher production in tons/year; and,
  - b. Annual screening production in tons/year.
3. TMK 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).
  4. TMK shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by TMK 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).
  5. TMK shall document, by month, the crushing production from the facility. By the 25<sup>th</sup> day of each month, TMK shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance

with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. TMK shall document, by month, the screening production from the facility. By the 25<sup>th</sup> day of each month, TMK shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

1. Within 30 days of commencement of construction of any NSPS-affected equipment, TMK shall notify the Department of the date of commencement of construction of the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).
2. Within 15 days of the actual start-up date of any NSPS-affected equipment, TMK shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).
3. Within 15 days of the actual start-up date of any non-NSPS-affected equipment, TMK shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – TMK 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 (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if TMK fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving TMK of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for 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 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 Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by TMK may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. TMK shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program.

PERMIT ANALYSIS  
TMK Construction, LLC  
Permit #4205-00

I. Introduction/Process Description

TMK Construction, LLC (TMK) owns and operates a gravel crushing and screening plant. The operation will originally be assembled within an existing gravel pit located in the NE ¼ of Section 35, Township 10 North, Range 3 West, in Lewis and Clark County, Montana.

A. Permitted Equipment

TMK owns and operates a portable 300 ton per hour (TPH) portable crusher; a 300 TPH portable screen; a 400 horsepower (hp) direct-drive diesel engine; a 100 hp diesel generator; and, associated conveyors, equipment and operations.

B. Source Description

TMK proposes to operate this crushing and screening plant, using the equipment described above, to produce construction materials in support of a hot mix asphalt plant located in the same operational pit, and other local construction activities. For a typical operational setup, unprocessed material is loaded into the crusher via a front end loader and hopper. Reject material is conveyed from the crusher to a reject pile. Crushed product material is conveyed to the screen deck and sorted into three size fractions by a double deck screen apparatus. From the screen the sorted product material is conveyed to three product stockpiles. In all the plant processes include 7 transfer points.

The crusher and screen are the production rate limiting equipment at the plant, they are arranged in series and both have a maximum design throughput of 300 TPH, the design average plant throughput is estimated to be 200 TPH. The permittee will utilize two diesel engines to power the plant. The 400 hp engine provides direct-drive power to the crusher apparatus. The 100 hp diesel engine powers an electric generator (~75 kilowatt (kW)) to provide electricity to drive the screen and conveyors. Individual transfer points and plant conveyances all have a maximum design throughput rate of 300 TPH and an average design throughput of 200 TPH; however, the conveyors and 7 transfer points maximum combined throughput is expected to be 300 TPH as limited by the design specification of crusher and screen.

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).

TMK 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:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

TMK 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, TMK 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 or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility has NSPS-affected equipment and engines that are subject to the requirements of 40 CFR 60, Subpart OOO and Subpart IIII as described below.

NSPS-affected equipment at the TMK facility would include any combination of the following: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station, which were constructed, reconstructed, or modified after August 31, 1983 (40 CFR 60, Subpart OOO).

NSPS-affected engines at the TMK facility include any new or reconstructed stationary compression ignition (CI) internal combustion engines (ICE) that commence construction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 and are not fire pump engines, and stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005 (40 CFR 60, Subpart IIII).

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The affected sources, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as described below.

All stationary reciprocating ICE (RICE) at major or area source of HAP emissions are affected sources subject to 40 CFR 63, Subpart ZZZZ. However, an affected source that is a new or reconstructed stationary RICE located at an area source, must meet the requirements of this part by meeting the requirements of 40 CFR 60, Subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part (40 CFR 63, Subpart ZZZZ).

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. TMK 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 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. 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 alteration to construct, alter, or use any, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. TMK has a PTE greater than 15 tons per year of oxides of nitrogen (NO<sub>x</sub>) and particulate matter (PM); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. TMK 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. TMK submitted an affidavit of publication of public notice for the March 5, 2008 issue of the *Independent Record*, a newspaper of general circulation in the Town of Helena in Lewis and Clark 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 TMK 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 17.8.762 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 altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of

Montana, and the facility complies with other applicable rules. (2) 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. 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 Modification--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 since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary 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 Applicability. (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 Air Quality Permit #4205-00 for TMK, 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 of all HAPs.
    - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
    - d. This facility is subject to current NSPS (40 CFR Part 60, Subpart OOO and Subpart IIII).
    - e. This facility is subject to area source provisions of current NESHAP 40 CFR 63, Subpart ZZZZ; however, this NESHAP standard specifically states that, in lieu

being subject to NSPS, no further requirements apply for such engines under the 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 has determined that TMK will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, TMK will be required to obtain a Title V Operating Permit.

### III. BACT Determination

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

Limitations and conditions proposed in this permit are based on NSPS for all affected sources at the facility (See Sections II.B. and D. of Permit #4205-00). TMK has proposed and is required to use water spray bars and water and/or chemical dust suppressant, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. The Department has determined that using water spray bars and water and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for these sources.

The diesel engines to be used to power the production equipment are all 2007 or newer models, which are subject to manufacturer certification in accordance with NSPS at 40 CFR 60, Subpart III. Therefore, relatively small amount of PM, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, and SO<sub>2</sub> emissions will be produced by the diesel engines and additional after market controls would be cost prohibitive. Thus, the Department has determined that no additional control would constitute BACT for the diesel engines. The control options selected have controls and control costs similar to other recently permitted similar sources and these controls are capable of achieving the established emissions limits.

### IV. Emission Inventory

<b>Emitting Unit</b>	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>SO<sub>2</sub></b>
Shaft Impact Crusher (300 TPH)	1.58	0.71				
2-Deck Screen (300 TPH)	2.89	0.97				
Material Transfer (1-7)	0.73	0.24				
Pile Forming	3.32	1.57				
Haul Roads	5.53	1.41				
3054C Diesel Engine (100 hp)	0.96	0.96	13.58	1.10	2.93	0.90
C13 Diesel Engine (400 hp)	3.85	3.85	54.31	4.40	11.70	3.59
<b>Total</b>	<b>18.87</b>	<b>9.72</b>	<b>67.89</b>	<b>5.50</b>	<b>14.63</b>	<b>4.49</b>

**Shaft Impact Crusher (300 TPH)**

Process Rate: 300 tons/hr

Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Table 11.19.2-2 8/2004)  
Calculations: 0.0012 lbs/ton \* 300 tons/hr = 0.36 lbs/hr  
0.36 lbs/hr \* 8760 hr/yr \* 0.0005 ton/lb = 1.58 tons/yr

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

Emission Factor: 0.00054 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations: 0.00054 lbs/ton \* 300 tons/hr = 0.16 lbs/hr  
0.162 lbs/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.71 tons/yr

**2-Deck Screen (300 TPH)**

Process Rate: 300 tons/hr

Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations: 0.0022 lbs/ton \* 300 tons/hr = 0.66 lbs/hr  
0.66 lbs/hr \* 8760 hr/yr \* 0.0005 ton/lb = 2.89 tons/yr

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

Emission Factor: 0.00074 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations: 0.00074 lbs/ton \* 300 tons/hr = 0.22 lbs/hr  
0.222 lbs/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.97 tons/yr

**Material Transfers**

*Material Transfer (1-3)*

Process Rate: 300 tons/hr

Number of Transfers: 3 Transfers

Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.00014 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations: 0.00014 lbs/ton \* 300 tons/hr \* 3 Transfers = 0.13 lbs/hr  
0.126 lbs/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.55 tons/yr

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

Emission Factor: 4.60E-05 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)  
Calculations: 0.000046 lbs/ton \* 300 tons/hr \* 3 Transfers = 0.04 lbs/hr  
0.0414 lbs/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.18 tons/yr

*Material Transfer (4-7)*

Process Rate: 75 tons/hr

Number of Transfers: 4 Transfers

Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.00014 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)

Calculations:  $0.00014 \text{ lbs/ton} * 75 \text{ tons/hr} * 4 \text{ Transfers} = 0.04 \text{ lbs/hr}$   
 $0.04 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.18 \text{ tons/yr}$

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

Emission Factor: 4.60E-05 lbs/ton (AP-42 Table 11.19.2-2, 8/2004)

Calculations:  $0.000046 \text{ lbs/ton} * 75 \text{ tons/hr} * 4 \text{ Transfers} = 0.01 \text{ lbs/hr}$   
 $0.0138 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.06 \text{ tons/yr}$

**Pile Forming**

Process Rate: 75 tons/hr

Number of Piles: 4 Piles

Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 2.53E-03 lbs/ton (AP-42 Section 13.2.4.3, 11/2006)

Calculations:  $0.0025 \text{ lbs/ton} * 75 \text{ tons/hr} * 4 \text{ Piles} = 0.76 \text{ lbs/hr}$   
 $0.758 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 3.32 \text{ tons/yr}$

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

Emission Factor: 1.20E-03 lbs/ton (AP-42 Section 13.2.4.3, 11/2006)

Calculations:  $0.0012 \text{ lbs/ton} * 75 \text{ tons/hr} * 4 \text{ Piles} = 0.36 \text{ lbs/hr}$   
 $0.359 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 1.57 \text{ tons/yr}$

**Haul Roads**

Vehicle miles traveled (estimate): 5 VMT/day

Control Efficiency is included in Emission Factor

PM Emissions (controlled):

Emission Factor (Average truck weight = 20 tons): 6.06 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006)

Calculations:  $5 \text{ VMT/day} * 6.06 \text{ lbs/VMT} = 30.29 \text{ lb/day}$   
 $30.29 \text{ lb/day} * 365 \text{ days/yr} * 0.0005 \text{ tons/lb} = 5.53 \text{ tons/yr}$

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

Emission Factor (Average truck weight 20 tons): 1.54 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006)

Calculations:  $5 \text{ VMT/day} * 1.5420226337805 \text{ Lbs/VMT} = 7.72 \text{ lb/day}$   
 $7.72 \text{ lb/day} * 365 \text{ days/yr} * 0.0005 \text{ tons/lb} = 1.41 \text{ tons/yr}$

**3054C Diesel Engine (100 hp)**

Rating = 100hp

Operating Hours = 8760 hr/yr

NO<sub>x</sub>

Emission Factor: 0.031 lb/hp-hr (AP 42, Table 3.3-1, 10/96)

Calculations:  $0.031 \text{ lb/hp-hr} * 100 \text{ hp} = 3.10 \text{ lb/hr}$   
 $3.1 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 13.58 \text{ tons/yr}$



CO

Emission Factor: 6.68E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.00668 lb/hp-hr \* 100 hp = 0.67 lb/hr  
0.668 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 2.93 tons/yr

SO<sub>2</sub>

Emission Factor: 2.05E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.00205 lb/hp-hr \* 100 hp = 0.21 lb/hr  
0.205 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 0.90 tons/yr

PM<sub>10</sub>

Emission Factor: 2.20E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.0022 lb/hp-hr \* 100 hp = 0.22 lb/hr  
0.22 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 0.96 tons/yr

VOC

Emission Factor: 2.51E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.00251 lb/hp-hr \* 100 hp = 0.25 lb/hr  
0.251 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 1.10 tons/yr

**C13 Diesel Engine (400 hp)**

Rating = 400 hp

Operating Hours= 8760 hr/yr

NO<sub>x</sub>

Emission Factor: 0.031 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.031 lb/hp-hr \* 400 hp = 12.40 lb/hr  
12.4 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 54.31 tons/yr

CO

Emission Factor: 6.68E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.00668 lb/hp-hr \* 400 hp = 2.67 lb/hr  
2.672 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 11.70 tons/yr

SO<sub>2</sub>

Emission Factor: 2.05E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.00205 lb/hp-hr \* 400 hp = 0.82 lb/hr  
0.82 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 3.59 tons/yr

PM<sub>10</sub>

Emission Factor: 2.20E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.0022 lb/hp-hr \* 400 hp = 0.88 lb/hr  
0.88 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 3.85 tons/yr

VOC

Emission Factor: 2.51E-03 lb/hp-hr (AP 42, Table 3.3-1, 10/96)  
Calculations: 0.00251 lb/hp-hr \* 400 hp = 1.00 lb/hr  
1.004 lb/hr \* 8760 hr/yr \* 0.0005 tons/lb = 4.40 tons/yr

V. Air Quality Impacts

Permit #4205-00 is issued for the operation of a portable crushing and screening plant to be initially located in the NE ¼ of Section 35, Township 10 North, and Range 3 West, in Lewis and Clark County, Montana. Permit #4205-00 will also cover the plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain PM<sub>10</sub> nonattainment areas. An Addendum to Permit #4205-00, including more stringent requirements to protect the non-attainment area, will be required for operating at locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*

VI. Ambient Air Impact Analysis

The initial proposed location of the crushing and screening plant is within the historic East Helena lead nonattainment area and approximately ½ mile west of the East Helena SO<sub>2</sub> nonattainment area. However, this facility is not expected to have lead emissions and minimal SO<sub>2</sub> emissions from the two 2007 model diesel engines. Therefore, the Department has determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, 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?
		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**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**P.O. Box 200901, Helena, MT 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* TMK Construction, LLC

*Air Quality Permit Number:* 4205-00

*Preliminary Determination Issued:* 05/09/08

*Department Decision Issued:* 05/30/08

*Permit Final:* 06/17/08

1. *Legal Description of Site:* NE ¼ of Section 35, Township 10 North, and Range 3 West, in Lewis and Clark County, Montana.
2. *Description of Project:* TMK Construction, LLC (TMK) owns and operates a portable gravel crushing and screening operation. The plant consists of 2007 portable crusher; a 2007 double deck portable screen; a 400 horsepower (hp) 2007 diesel engine; a 100 hp 2007 diesel generator; and, associated conveyors, equipment and operations. The proposed action is to issue a Montana Air Quality Permit #4205-00 allowing construction/assembly of the plant initially located at an existing gravel pit near East Helena at the location described above. Construction of the existing gravel pit at this location was permitted (permit number RDP-002) under Montana's Open Cut Mining Program in 2007. Potential environmental impacts for construction of the gravel pit at-large were analyzed at that time (Open Cut Operating permit # RDP-002, on file at the Department) in accordance with the Montana Environmental Policy Act (MEPA), this potential environmental impact analysis is tiered to that analysis.
3. *Objectives of Project:* The objective of construction and operation of the crushing and screening plant at this location is to provide material for a hot mix asphalt plant located at the same site. Also products from this plant will provide construction materials in support of Mountain View Estates subdivision located south of East Helena, and other area construction projects.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit for the proposed gravel crushing and screening plant. Selection of the no action alternative would deny the proposed air quality permit and disallowing construction and operation of the gravel crushing and screening plant. This would result in existing site conditions including the permitted gravel pit. However, the Department does not consider the "no-action" alternative to be appropriate because TMK has demonstrated compliance with all applicable rules and regulations as required for air quality permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in Permit #4205-00.
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.

7. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture				X		Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources				X		Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

**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: MEPA analysis for the permitted gravel pit identified the Agapetus Caddisfly as a potential species of concern in the project area, but this occurrence was dismissed due to the upland nature of the proposed project site. Research conducted for this analysis has identified that the proposed action is within the potential range of Gray Wolf. The Gray Wolf is in the process of being delisted by the US Fish and Wildlife Service. No additional disturbance to that permitted for construction of the gravel pit is proposed; therefore, potential impacts to terrestrial and aquatic life and habitats are expected to be minor due increased noise in the area and deposition of relatively minor amounts of air pollutants emitted from the portable crushing and screening plant.
- B. Water Quality, Quantity and Distribution: Water would be used for dust suppression on the surrounding roadways and areas of operation and for emission pollution control during operations. Water use would be relatively small, therefore impacts on water quantity are expected to be minor. No impacts to ground water quality from pollutant infiltration are expected because PM suppression will be on an as-needed basis, saturated conditions will not be maintained within material or along haul roads. The facility has not proposed to discharge industrial waste water to state surface water, furthermore storm water run-off from the facility would be subject to control and permitting under the Montana Pollutant Discharge Elimination System as applicable. Therefore, potential impact to state water quality, quantity and distribution are expected to be minor at most.
- C. Geology and Soil Quality, Stability and Moisture: Potential impacts to geology and soil quality, stability and moisture were previously analyzed for permitting of construction of the gravel pit. As no addition disturbance is proposed by the proposed action no impacts are expected.

- D. **Vegetation Cover, Quantity, and Quality:** Previous MEPA analysis for the permitted gravel pit identified Wedge-Leaved Saltbush, Lesser Rushy Milvetch and Small Yellow Lady's Slipper as potentially impacted species of concern. The analysis for the gravel pit permit concluded potential impacts to these plants were insignificant. Research for this MEPA analysis did not identify additional species of concern. Since no additional land disturbance beyond that already permitted for the gravel pit is included in this proposed action, potential impacts to these species habitats or quantity are minor due to potential deposition of relatively minor amounts of air pollutions emitted from this facility.
- E. **Aesthetics:** The proposed facility will be visible from Highways 282 and 12. However, the profile of the equipment associated with the crushing and screening plant will be partially obstructed because its profile will be recessed within the permitted gravel pit. Furthermore, visible portions of the plant will be difficult to discern from other construction equipment and implements associated with construction of the housing development at large. Finally, draft Permit #4205-00 contains provisions that control visible emissions from the facility. Therefore potential visual impacts to aesthetics are minor.

The proposed action contains equipment which will create noise pollution during operation. However, the crushing and screening plant will be recessed from the surrounding topography within the gravel pit which will naturally mitigate horizontal noise propagation to receptors. Operation of the crushing and screening plant will add limited amounts of noise; however, this noise will be difficult to discern from noise created from operation of equipment associated with the permitted gravel pit. Therefore, potential impacts to aesthetics due to noise are expected to be minor.

- F. **Air Quality:** The air quality impacts from the crushing and screening plant operations would be minor because Permit #4205-00 would include conditions limiting the opacity from the plant, as well as requiring fabric filter baghouse, water spray as necessary, and other means to control air pollution. Further, Permit #4205-00 would limit total emissions from the crushing and screening plant operation and any additional equipment owned and operated by TMK to 250 tons/year or less at any given operating site, excluding fugitive emissions.

Small amounts of deposition generated from the crushing and screening plant operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Similarly air pollutant deposition and impacts due to emissions from the crushing and screening plant would likely be temporary because these types of facility generally do not remain in one location more than 12 months. Overall, any air quality impacts resulting from the proposed crushing and screening plant operation would be minor.

- G. **Unique Endangered, Fragile, or Limited Environmental Resources:** The proposed action is within the potential range of the recently delisted Gray Wolf. Noise from the operation may have limited impacts on animals within their potential extended range; no sightings of this species have been identified at or within one mile of the subject property. Additionally, the proposed project is adjacent to the urbanized area associated with the town of East Helena (which is also included within the recently expanded extended range of this species); however, the presence of the town is an existing condition that is a deterrent to habitation of this area by this species. Over-all the Department believes the proposed action does not constitute potential impacts to Gray Wolf within its recently expanded extended range.

Similarly, previous MEPA analysis for the permitted gravel pit identified sensitive or limited plant species including Wedge-Leaved Saltbush, Lesser Rushy Milvetch and Small Yellow Lady's Slipper as potentially being impacted. The analysis for the gravel pit permit concluded potential impacts to these plants were insignificant. Research for this MEPA analysis did not identify additional endangered, fragile or limited species of concern. Since no additional land disturbance beyond that already permitted for the gravel pit is included in this proposed action, no potential impacts to these limited or sensitive plant species are expected.

- H. Demands on Environmental Resource of Water, Air and Energy: Due to the relatively small size of the facility and relatively low potential to emit regulated air pollutants, the crushing and screening plant operation would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Small quantities of water would be used for dust suppression and would control particulate emissions generated through equipment operations and vehicle traffic at the site. Energy requirements would be accommodated through the use of electricity obtained via diesel-fired generator. In addition, the crushing and screening plant operation would be temporary as it is not permitted to remain at this location for more than twelve months. Further, impacts to air resources would be minor because the source would be small by industrial standards, and would generate relatively minor amounts of regulated pollutants through normal operations.

Overall, any impacts to the above-cited physical and biological resource of the human environment of the project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

- I. Historical and Archaeological Sites: No historical or archaeological sites were identified during MEPA analysis for permitting of the gravel pit or during research conducted for this analysis. No ground disturbance, in addition to that analyzed previously, is included in the proposed action; therefore, no potential impacts are expected.
- J. Cumulative and Secondary Impacts: The proposed facility can be expected to move from place to place operating as a stand-alone operation or in support of other similar types of operations both in its initially proposed location and in locations throughout the state. The crushing and screening plant operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment of a given proposed area of operation because the facility would generate emissions of regulated air pollutants and noise would be generated from equipment operations. Emissions and noise would cause minor disturbance to a given area because the equipment is relatively small by industrial standards and the facility would initially and typically operate in areas designated and used for such industrial operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

The Department is currently considering a pending Montana Air Quality Permit (Permit #4206-00) application for a hot mix asphalt plant operated by a separate owner/operator to be initially located concurrent to the crushing and screening plant considered by this proposed action. Aggregate produced by the crushing and screening operation will provide raw materials to the asphalt plant. Cumulative affects of these two operations will include combined air emissions of PM, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOCs; as well as, additional noise and other cumulative impacts to the human environment. However, the Department believes the cumulative impacts to air quality will not violate applicable air quality standards and potential impacts to terrestrial and aquatic life and habitat; water quality, quantity and distribution; vegetative quality; aesthetics;

and, demands of environmental resources will be minor. No additional disturbance is proposed by the pending asphalt plant or this proposed action, in addition to that analyzed for permitting of the construction of the gravel pit, and the cumulative operation is relatively small by industrial standards.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

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

- A. Social Structures and Mores:
- B. Cultural Uniqueness and Diversity: The crushing and screening plant operation would cause no disruption to the above-cited economic and social resources or cultural uniqueness and diversity of the human environment in any given area of operation because the source would be a minor industrial source of emissions, would initially and typically operate in an existing industrial site used for such purposes, and would operate on a temporary basis. The predominant use of the surrounding area would not change as a result of the proposed project.
- C. Local and State Tax Base and Tax Revenue: The crushing and screening plant operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source and would conduct only seasonal and intermittent operations. The facility would require the use of only a few employees. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would be portable and the money generated for taxes would be widespread.

Overall, any impacts to the above-cited economic and social resource of the human environment of any given project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall local and state tax base and tax revenue of any given area would not change as a result of the proposed project and any associated impacts would be minor.



- D. **Agricultural or Industrial Production:** Previous MEPA analysis for gravel pit construction permitted concluded potential impacts to agricultural or industrial production would be minor and temporary. As no additional land disturbance is proposed by this action no impacts to agricultural production are expected. Minor impacts to industrial production are expected as the facility described in the proposed action produces a construction material. However, the proposed operation remains relatively small by industrial standards. Overall, potential impacts to agricultural and industrial production are expected to be minor.
- E. **Human Health:** Permit #4205-00 would include limits and conditions to ensure that the crushing and screening plant facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health.

Overall, any impacts to the above-cited economic and social resource of the human environment of the project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall impacts to human health as a result of the proposed project would be minor.

- F. **Access to and Quality of Recreational and Wilderness Activities:** Noise from the facility would be minor because the crushing and screening plant operation would be small by industrial standards and would initially and typically operate in areas used for such operations. As a result, the amount of noise generated from the crushing and screening plant operation would be minimal for the area. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived. Similarly, the crushing and screening plant operation would initially and typically operate within areas designated for such operations; therefore, impacts to access to recreational and wilderness areas are expected to be minor or insignificant. Overall potential impacts to access to and quality of recreational and wilderness activities are expected to be minor.
- G. **Quantity and Distribution of Employment:**
- H. **Distribution of Population:** The proposed crushing and screening plant operation would require only a few employees to operate thereby resulting in little, if any, permanent immigration into or emigration out of a given area. Therefore, the proposed project would not impact the above-cited economic and social resources of the human environment at the initially proposed or any other given operating site.
- I. **Demands for Government Services:** Minor increases would be seen in traffic on existing roadways in the area while the crushing and screening plant operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, any demands for government services would be minor.
- J. **Industrial and Commercial Activity:** The crushing and screening plant operation would represent only a minor increase in the industrial activity in the proposed initial or any future area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Very little, if any, additional industrial or commercial activity would be expected as a result of the proposed operation.

Overall, any impacts to industrial and commercial activity of the human environment from the project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

- K. Locally Adopted Environmental Plans and Goals: The Department is not aware of any locally adopted environmental plans or goals in the initial area of operation or any future operating site since Permit #4205-00 would allow for operations at various unknown locations throughout the state. However, if the plant moved to an area classified as non-attainment for PM<sub>10</sub>, the operation would be required to apply for and receive an addendum to Permit #4205-00 prior to operation at the site. The addendum would include more restrictive requirements to protect the non-attainment area from further degradation. The state standards would be protective of any proposed area of operation.

Overall, any impacts to the above-cited economic and social resource of the human environment of the project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

- L. Cumulative and Secondary Impacts: The crushing and screening plant operations as proposed at its initial location in conjunction with other pending permitting actions as described in Section 7.J. would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the combined operations are relatively small by industrial standards.

- M. The source would be a portable and temporary source. Few, if any, other industrial operations would be expected to result from the permitting and operation of this facility. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility.

Overall, the proposed crushing and screening plant operation would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the initially proposed and any future operating site.

*Recommendation:* No EIS is required. Permit #4205-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable air quality rules and regulations. In addition, all impacts associated with the proposed action are expected to be insignificant or minor.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

*Individuals or groups contributing to this EA:* Department of Environmental Quality – Air Resources Management Bureau, Industrial and Energy Minerals Bureau; Montana Historical Society – State Historic Preservation Office; Natural Resource Information System – Montana Natural Heritage Program

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