

## AIR QUALITY PERMIT

Issued To: Thompson Falls Sand and Gravel Permit #3010-03  
P.O. Box 1143 Modification Request Complete: 05/08/06  
Thompson Falls, MT 59873 Preliminary Determination Issued: 06/16/06  
Department's Decision Issued: 07/05/06  
Permit Final: 07/21/2006  
AFS #777-3010

An air quality permit, with conditions, is granted to Thompson Falls Sand and Gravel (Thompson) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Original Location

Thompson operates a portable crushing/screening facility. Permit #3010-03 applies while operating at any location in Montana, except within those areas that have a Department of Environmental Quality (Department) approved permitting program 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.

#### B. Current Permit Action

On May 8, 2006, Thompson requested a modification to Permit #3010-02 and Addendum 3 for the addition of a diesel generator (up to 250 kilowatts (kW)), two crushers up to 80 tons per hour (TPH) each, and a screen up to 80 TPH. The permit was written in a de minimis friendly manner to allow Thompson flexibility in operation of the facility equipment. The addendum contains restrictions to protect the air quality in and within 10 km of the Butte, Libby, Thompson Falls, Kalispell, Columbia Falls, and Whitefish PM<sub>10</sub> nonattainment areas.

### Section II: Conditions and Limitations

#### A. Emission Limits

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, ARM 17.8.752, 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, ARM 17.8.752, 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 and ARM 17.8.752).

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 and ARM 17.8.752).
5. Thompson 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 and ARM 17.8.752).
6. Thompson 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. Thompson shall not operate more than four crushers at any given time and the maximum combined rated design capacity of the crushers shall not exceed 460 TPH (ARM 17.8.749).
8. Crusher production from the facility shall be limited to 4,029,600 tons during any rolling 12-month time period (ARM 17.8.749).
9. Thompson shall not operate more than two screens at any given time and the maximum combined rated design capacity of the screens shall not exceed 230 TPH (ARM 17.8.749).
10. Total combined screen production from the facility shall be limited to 2,014,800 tons during any rolling 12-month time period (ARM 17.8.749).
11. Thompson shall not operate more than two diesel generators at any given time, and the maximum combined rated design capacity shall not exceed 615-kW and shall not exceed a combined total of 6000 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Thompson, 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. Thompson 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).

**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. In addition, 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 Intent to Transfer Form and 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 17.8.765).

2. Thompson 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).

3. Thompson shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by Thompson as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).
4. Thompson shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745(1) that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
5. Thompson shall document, by month, the total crushing production for the facility. By the 25<sup>th</sup> day of each month, Thompson shall calculate the total 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. Thompson shall document, by month, the total screening production for the facility. By the 25<sup>th</sup> day of each month, Thompson shall calculate the total 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).
7. Thompson shall document, by month, the hours of operation of the diesel generator(s). By the 25<sup>th</sup> day of each month, Thompson shall total the hours of operation of the diesel generator(s) during the previous 12 months to verify compliance with the limitation in Section II.A.11. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
8. Thompson shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

#### Section IV: General Conditions

- A. Inspection – Thompson 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 Thompson fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Thompson 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). 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 Thompson 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 be 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. Thompson 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  
Thompson Falls Sand and Gravel  
Permit #3010-03

I. Introduction/Process Description

A. Permitted Equipment:

Thompson Falls Sand and Gravel (Thompson) operates a portable crushing/screening facility consisting of four crushers (up to 460 tons per hour (TPH) combined capacity), two 3-deck screens (up to 230 TPH combined capacity), two diesel generators (up to 615 kilowatts (kW) combined capacity), and associated equipment.

B. Source Description

Thompson proposes to use this crushing/screening plant to crush and sort sand and gravel. For a typical operation, raw material is loaded into an apron feeder. From the feeder, the material is sent through the jaw crusher. After the jaw crusher, the material is conveyed to the screen where oversized material is sent through the cone crusher. Once through the cone crusher, the material is screened again, and conveyed to a stockpile for use. Thompson will use the material produced by this facility in various construction projects.

C. Permit History

On June 17, 1998, Permit #**3010-00** became final. Thompson submitted a complete permit application to operate a portable 1957 Kue Ken Jaw crusher (150 TPH), a 1961 Allis Chalmers Cone crusher (150 TPH), a 350-kW Diesel Generator, and associated equipment. The original location of the equipment is the SW¼, NE¼, NW¼ of Section 15, Township 21 North, Range 29 West, in Sanders County, Montana. Because this location is within 10 kilometers of the Thompson Falls PM<sub>10</sub> nonattainment area, **Addendum 1** was issued for the facility while it was operating at this location.

On September 5, 1999, Permit #**3010-01** became final. The current permit action was a modification to allow for summer operation (April 1, 1999, through September 30, 1999) within the following PM<sub>10</sub> nonattainment area: Butte, Libby, Kalispell, Columbia Falls, Whitefish, and Thompson Falls. In addition, **Addendum 2** to Permit #3010-01 established conditions and limitations, which would allow for winter operation in the Thompson Falls Sand and Gravel home pit. The home pit is located within 10 km of the Thompson Falls PM<sub>10</sub> nonattainment area in SW¼, NE¼, NW¼ of Section 15, Township 21 North, Range 29 West, in Sanders County, Montana. Screen 3 modeling was conducted to demonstrate compliance with the PM<sub>10</sub> nonattainment area requirements at the above location during winter operation. Permit #3010-01 replaced Permit #3010-00 and Addendum 2 replaced Addendum 1.

On May 5, 2003, Thompson requested a permit modification for the addition of 1985 El Jay 45" cone crusher (150 tons per hour (TPH)), a 1995 Fabtec 3-deck screen (150 TPH), a 1962 Pioneer 20 x 36 jaw crusher (150 TPH) with 40" and 16" belt feeders, a 1997 Cat 365-kilowatt (kW) diesel generator, and associated equipment.

The addendum contained restrictions to protect the air quality in and within 10 km of the Kalispell, Columbia Falls, and Whitefish PM<sub>10</sub> nonattainment area. SCREEN VIEW air dispersion modeling was conducted for Permit #3010-02 to determine a production limit that would protect the nonattainment areas. Worst case modeling results were used to determine a production limit that would protect existing air quality. Permit #3010-02 and Addendum 3 were updated to reflect current permit language and rule references used by the Department. Permit #3010-02 replaced Permit #3010-01 and **Addendum 3** replaced Addendum 2.

D. Current Permit Action

On May 8, 2006, Thompson requested a modification to Permit #3010-02 and Addendum 3 for the addition of a diesel generator (up to 250 kilowatts (kW)), two crushers up to 80 tons per hour (TPH) each, and a screen up to 80 TPH. The permit was written in a de minimis friendly manner to allow Thompson flexibility in operation of the facility equipment. The addendum contains restrictions to protect the air quality in and within 10 km of the Butte, Thompson Falls, Libby, Kalispell, Columbia Falls, and Whitefish PM<sub>10</sub> nonattainment area. Permit #3010-03 replaces Permit #3010-02, and **Addendum 4** replaces Addendum 3.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the permit analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations, which apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the Department. Upon request, the Department will provide references for locations 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 test, 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).

Thompson 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, Sub-Chapter 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
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

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

C. ARM 17.8, Sub-Chapter 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 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Thompson 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 17.8.310 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.

4. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR 60, NSPS, shall comply with the standards and provisions of 40 CFR 60. In order for a crushing/screening plant to be subject to 40 CFR 60, Subpart OOO requirements, two specific criteria must be met. First the crushing/screening plant must meet the definition of an affected facility and second, the equipment in question must have been constructed or modified after August 31, 1983. Based on the information submitted by Thompson, the crushing/screening equipment to be used with Permit #3010-03 may be subject to NSPS requirements (40 CFR 60, Subpart A General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants). For the equipment identified in Section I.A. of this analysis, NSPS would not apply.

D. ARM 17.8, Sub-Chapter 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. Thompson 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, Sub-Chapter 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 facility to obtain an air quality permit or permit alteration if they construct, alter or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Thompson has the PTE more than 15 tons per year of particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), and nitrogen oxides

(NO<sub>x</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 are not subject to the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Thompson 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. Thompson submitted an affidavit of publication of public notice for the April 27, 2006, issue of the *Sanders County Ledger*, a newspaper of general circulation in the Town of Thompson Falls in Sanders 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 the 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 Thompson 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 17.8.762 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.
11. 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).

12. 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. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
13. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Sub-Chapter 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 Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not listed and does not have the PTE more than 250 tons per year of any air 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 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 #3010-03 for Thompson, 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 currently subject to NSPS standards (40 CFR60, Subpart A, General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants).
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts and the hourly limit on the diesel generator(s), the Department determined that this facility is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program.

- h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.
  - i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
  - ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

3. ARM 17.8.1207, Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information

and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for each new or altered source. Thompson 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.

Thompson shall not cause or authorize to be discharged into the atmosphere from any NSPS affected crusher, any visible emissions that exhibit an opacity of 15% or greater averaged over 6 consecutive minutes. Thompson shall not cause to be discharged into the atmosphere from any other NSPS affected equipment, such as screens or conveyor transfers, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes.

Thompson shall not cause to be discharged into the atmosphere from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. Thompson must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, parking areas, and the general plant property. Thompson 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 determined that using water spray bars and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for these sources.

Because of the relatively small amount of emissions produced by the diesel generator, add-on control would be cost prohibitive. Thus, the Department determined that no additional control would constitute BACT for the generator. The control options selected have control and control costs similar to other recently permitted similar sources and are capable of achieving the appropriate emissions standards.

IV. Emission Inventory -- Permit #3010-03

Source	Tons/Year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Four crushers (up to 460 TPH combined capacity)	2.41	1.10				
Two screens (up to 230 TPH combined capacity)	2.23	0.74				
Material transfer	4.25	1.10				
Pile forming	25.79	12.09				
Bulk loading	3.37	1.14				
Two Diesel generator (up to 615-kW combined capacity)	1.73	1.73	76.73	1.74	13.61	20.02
Haul roads	12.68	3.60				
<b>Total</b>	<b>52.46</b>	<b>21.50</b>	<b>76.73</b>	<b>1.74</b>	<b>13.61</b>	<b>20.02</b>

•The diesel generators are limited to no more than 6000 hours per year to keep the facility from being a major source.

**Up to 4 Crushers (up to 460 tons/hour total maximum capacity)**

Maximum Process Rate: 460 ton/hr  
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0012 lbs/ton (AP-42, Table 11.19.2-2, 8/04)  
 Hourly Calculations: 0.0012 lbs/ton \* 460 tons/hr = 0.55 lbs/hr  
 Daily Calculations: 0.55 lb/hr \* 24 hr/day = 13.25 lb/day

Annual Calculations: 0.55 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 2.41 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.00054 lbs/ton \* 460 tons/hr = 0.25 lbs/hr  
Daily Calculations: 0.25 lb/hr \* 24 hr/day = 6.00 lb/day  
Annual Calculations: 0.25 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 1.10 ton/yr

**Up to 2 Screens (up to 230 tons/hour total maximum capacity)**

Process Rate: 230 ton/hr  
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0022 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.0022 lb/ton \* 230 ton/hr = 0.51 lb/hr  
Daily Calculations: 0.51 lb/hr \* 24 hr/day = 12.24 lb/day  
Annual Calculations: 0.51 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 2.23 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 0.00074 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.00074 lb/ton \* 230 ton/hr = 0.17 lb/hr  
Daily Calculations: 0.17 lb/hr \* 24 hr/day = 4.08 lb/day  
Annual Calculations: 0.17 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.74 ton/yr

**Diesel Generator (up to 2 generators)**

Generator Size = combined capacity up to 615 kW  
1kW = 1.341 hp  
615 kW \* 1.341 = 825 hp

Hours of operation: 6000 hr/yr

PM Emissions

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.0007 lb/hp-hr = 0.578 lb/hr  
Daily Calculations: 825 hp \* 0.0007 lb/hp-hr \* 16 hr/day = 9.24 lb/day  
Annual Calculation: 825 hp \* 0.0007 \* 6000hr/yr \* 0.0005 lb/ton = 1.73 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.0007 lb/hp-hr = 0.578 lb/hr  
Daily Calculations: 825 hp \* 0.0007 lb/hp-hr \* 16 hr/day = 9.24 lb/day  
Annual Calculation: 825 hp \* 0.0007 \* 6000hr/yr \* 0.0005 lb/ton = 1.73 ton/yr

NOx Emissions:

Emission Factor: 0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.031 lb/hp-hr = 25.58 lb/hr  
Daily Calculations: 825 hp \* 0.031 lb/hp-hr \* 16 hr/day = 409.20 lb/day  
Annual Calculation: 825 hp \* 0.031 \* 6000hr/yr \* 0.0005 lb/ton = 76.73 ton/yr

VOC Emissions:

Emission Factor: 0.00071 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.00071 lb/hp-hr = 0.59 lb/hr  
Daily Calculations: 825 hp \* 0.00071 lb/hp-hr \* 16 hr/day = 9.31 lb/day  
Annual Calculation: 825 hp \* 0.00071 \* 6000hr/yr \* 0.0005 lb/ton = 1.74 ton/yr

CO Emissions:

Emission Factor: 0.0055 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.0055 lb/hp-hr = 4.54 lb/hr  
Daily Calculations: 825 hp \* 0.0055 lb/hp-hr \* 16 hr/day = 76.60 lb/day  
Annual Calculation: 825 hp \* 0.0055 \* 6000hr/yr \* 0.0005 lb/ton = 13.61 ton/yr

SOx Emissions:

Emission Factor: 0.00809 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.00809 lb/hp-hr = 6.67 lb/hr  
Daily Calculations: 825 hp \* 0.00809 lb/hp-hr \* 16 hr/day = 106.79 lb/day

Annual Calculation:  $825 \text{ hp} * 0.00809 * 6000 \text{ hr/yr} * 0.0005 \text{ lb/ton} = 20.02 \text{ ton/yr}$

### Material Transfer

Process Rate: 460 ton/hr  
Number of Transfers 15 transfers  
Hours of operation: 8760 hr/yr

#### PM Emissions:

Emission Factor: 0.00014 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations:  $0.00014 \text{ lb/ton} * 460 \text{ ton/hr} * 15 = 0.97 \text{ lb/hr}$   
Daily Calculations:  $0.97 \text{ lb/hr} * 24 \text{ hr/day} = 23.18 \text{ lb/day}$   
Annual Calculations:  $0.97 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 4.25 \text{ ton/yr}$

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

Emission Factor: 0.00054 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations:  $0.00054 \text{ lb/ton} * 500 \text{ tons/hr} = 0.25 \text{ lb/hr}$   
Daily Calculations:  $0.25 \text{ lb/hr} * 24 \text{ hr/day} = 5.96 \text{ lb/day}$   
Annual Calculations:  $0.25 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.10 \text{ ton/yr}$

### Pile Forming

Process Rate: 460 ton/hr  
Number of Piles 4 piles  
Hours of operation: 8760 hr/yr

#### PM Emissions:

Emission Factor: 0.0032 lb/ton (AP-42, Section 13.2.4, 1/95)  
Hourly Calculations:  $0.0032 \text{ lb/ton} * 460 \text{ ton/hr} * 4 \text{ piles} = 5.89 \text{ lb/hr}$   
Daily Calculations:  $5.89 \text{ lb/hr} * 24 \text{ hr/day} = 141.31 \text{ lb/day}$   
Annual Calculations:  $5.89 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 25.79 \text{ ton/yr}$

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

Emission Factor: 0.0015 lb/ton (AP-42, Section 13.2.4, 1/95)  
Hourly Calculations:  $0.0015 \text{ lb/ton} * 460 \text{ ton/hr} * 4 \text{ piles} = 2.76 \text{ lb/hr}$   
Daily Calculations:  $2.76 \text{ lb/hr} * 24 \text{ hr/day} = 66.24 \text{ lb/day}$   
Annual Calculations:  $2.76 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 12.09 \text{ ton/yr}$

### Bulk Loading

Process Rate: 200 ton/hr  
Number of Loads 4 load  
Hours of operation: 8760 hr/yr  
Control Efficiency: 50%

#### PM Emissions:

Emission Factor: 0.0022 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations:  $0.0022 \text{ lb/ton} * 200 \text{ ton/hr} = 0.77 \text{ lb/hr}$   
Daily Calculations:  $0.77 \text{ lb/hr} * 24 \text{ hr/day} = 18.48 \text{ lb/day}$   
Annual Calculations:  $0.77 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.37 \text{ ton/yr}$

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

Emission Factor: 0.00074 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations:  $0.00074 \text{ lb/ton} * 200 \text{ ton/hr} = 0.26 \text{ lb/hr}$   
Daily Calculations:  $0.26 \text{ lb/hr} * 24 \text{ hr/day} = 6.24 \text{ lb/day}$   
Annual Calculations:  $0.26 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.14 \text{ ton/yr}$

**Haul Roads**

Vehicle miles traveled: 15 VMT/day {Estimated}  
Assumption: Rated Load Capacity < 50 tons  
Hours of Operation: 8760 hr/yr  
24 hr/day  
365 day/yr

TSP Emissions:

Emission Factor: 13.90 lb/VMT  
Calculations: 5.0 VMT/day \* 13.90 lb/VMT = 69.50 lb/day  
69.50 lb/day \* 365 day/yr \* 0.0005 ton/lb = 12.68 ton/yr

PM-10 Emissions:

Emission Factor: 3.95 lb/VMT  
Calculations: 5 VMT/day \* 3.95 lb/VMT = 19.75 lb/day  
19.75 lb/day \* 365 day/yr \* 0.0005 ton/lb = 3.60 ton/yr

V. Existing Air Quality

Permit #3010-03 is issued for the operation of a portable crushing/screening plant to be originally located in the SW¼, NE¼, NW¼ of Section 15, Township 21 North, Range 29 West, in Sanders County, Montana. The proposed site is designated as a nonattainment area. Therefore, Permit #3010-03 will not fully cover operations at this site and an addendum is required.

VI. Ambient Air Impact Analysis

The Department determined, based on ambient air modeling, 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. Takings or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VIII. Environmental Assessment

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



ADDENDUM 4  
Thompson Falls Sand and Gravel  
Permit #3010-03

An addendum to air quality Permit #3010-03 is issued to Thompson Falls Sand and Gravel (Thompson) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

On May 8, 2006, Thompson applied for a modification of Permit #3010-02 and Addendum 3 for additional equipment to be used for a portable crushing/screening facility operating in or within 10 kilometers (km) of the following PM<sub>10</sub> nonattainment areas including but not limited to: Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte.

II. Seasonal and Site Restrictions

Addendum 4 applies to the Thompson facility while operating at any location in or within 10 km of certain PM<sub>10</sub> nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31) - The only location(s) in or within 10 km of a PM<sub>10</sub> nonattainment area where Thompson may operate is:
- SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub> of Section 15, Township 21 North, Range 29 West, in Sanders County, Montana, and
  - Any other site that may be approved in writing, by the Department of Environmental Quality (Department).
- B. During the summer season (April 1 through September 30) Thompson may operate in or within 10 km of any of the Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte PM<sub>10</sub> nonattainment areas.
- C. Thompson shall comply with the limitations and conditions contained in Addendum 4 to Permit #3010-03 while operating in or within 10 km of any of the previously listed PM<sub>10</sub> nonattainment areas. Addendum 4 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum 4 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

- A. Operational Limitations and Conditions – **Winter Season (October 1 – March 31)**
1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is operating (ARM 17.8.749).
  2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

3. Thompson shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
4. Thompson shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
5. Thompson shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
6. Total combined crushing production of all crushers shall not exceed 4416 tons during any rolling 24-hour time period (ARM 17.8.749).
7. Screening production of all screens shall be limited to 2208 tons during any rolling 24-hour time period (ARM 17.8.749).
8. Total generator operation shall be limited to 9.6 hours during any rolling 24-hour time period (ARM 17.8.749).

**B. Operational Limitations and Conditions – Summer Season (April 1 – September 30)**

1. Water spray bars must be operated on the crushers, screens, and all transfer points whenever the crushing/screening plant is operating (ARM 17.8.749).
2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
3. Thompson shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
4. Thompson shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
5. Thompson shall treat all unpaved portions of the haul roads, access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
6. Total combined crushing production of all crushers shall not exceed 11,040 tons during any rolling 24-hour time period (ARM 17.8.749).
7. Screening production of all screens shall be limited to 5520 tons during any rolling 24-hour time period (ARM 17.8.749).
8. Total generator operation shall be limited to 16 hours during any rolling 24-hour time period (ARM 17.8.749).

C. Operational Reporting Requirements

1. Thompson shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).
2. Thompson shall provide the Department with written notice of relocation of the permitted equipment within 15 working days before the physical transfer of the equipment (ARM 17.8.765).
3. Production information for the sites covered by this addendum must be submitted to the Department with the annual emission inventory request or within 30 days of completion of the project. The information must include (ARM 17.8.749):
  - a. Tons of material crushed
  - b. Tons of material screened
  - c. Tons of bulk material loaded
  - d. Daily hours of operation
  - e. Gallons of diesel fuel used for the generator
  - f. Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:
    - i. Number of vehicles
    - ii. Vehicle type
    - iii. Vehicle weight, loaded
    - iv. Vehicle weight, unloaded
    - v. Number of tires on vehicle
    - vi. Average trip length
    - vii. Number of trips per day per vehicle
    - viii. Average vehicle speed
    - ix. Area of activity
    - x. Vehicle fuel usage (gasoline or diesel) annual total
  - g. Fugitive dust control for haul roads and general plant area:
    - i. Hours of operation of water trucks
    - ii. Application schedule for chemical dust suppressant, if applicable
4. Thompson shall document, by day, the total crushing production during the winter season. Thompson shall sum the combined total crushing production during the previous 24 hours to verify compliance with the limitation in Section III.A.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).

5. Thompson shall document, by day, the total screening production during the winter season. Thompson shall sum the combined total screening production during the previous 24 hours to verify compliance with the limitation in Section III.A.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).
6. Thompson shall document, by day, the total crushing production during the summer season. Thompson shall sum the combined total crushing production during the previous 24 hours to verify compliance with the limitation in Section III.B.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).
7. Thompson shall document, by day, the total screening production during the summer season. Thompson shall sum the combined total screening production during the previous 24 hours to verify compliance with the limitation in Section III.B.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).
8. Thompson shall document, by day, the hours of operation of the diesel generator(s) during the winter season. Thompson shall total the hours of operation of the diesel generator(s) during the previous 24 hours to verify compliance with the limitations in Section III.A.8. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
9. Thompson shall document, by day, the hours of operation of the diesel generator(s) during the summer season. Thompson shall total the hours of operation of the diesel generator(s) during the previous 24 hours to verify compliance with the limitations in Section III.B.8. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).

ADDENDUM 4 ANALYSIS  
Thompson Falls Sand and Gravel  
Permit #3010-03

I. Permitted Equipment

Thompson Falls Sand and Gravel (Thompson) operates a portable crushing/screening facility consisting of four crushers (up to 460 tons per hour (TPH) combined capacity), two 3-deck screens (up to 230 TPH combined capacity), two diesel generators (up to 615-kilowatts (kW) combined capacity), and associated equipment.

II. Source Description

Thompson proposes to operate additional equipment at the crushing/screening plant to crush and sort sand and gravel. For a typical operation, raw material is loaded into an apron feeder. From the feeder, the material is sent through the jaw crusher. After the jaw crusher, the material is conveyed to the screen where oversized material is sent through the cone crusher. Once through the cone crusher, the material is screened again, and conveyed to a stockpile for use. Thompson will use the material produced by this facility in various construction projects.

III. Applicable Rules and Regulations

The following are partial quotations 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 locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

- A. 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.
- B. ARM 17.8.764 Administrative Amendment of 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 which do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
  - 1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department.
  - 2. The source will operate in the new location for a period of less than 1 year.
  - 3. The source will not have any significant impact on any nonattainment area or any Class I area.

Thompson shall submit proof of compliance with the transfer and public notice requirements

when Thompson transfers to any of the locations covered by this addendum and will only be allowed to stay in the new location for a period of less than 1 year. Also, the conditions and limitations in Addendum 4 to Permit #3010-03 will prevent Thompson from having a significant impact on certain PM<sub>10</sub> nonattainment areas.

IV. Emission Inventory--Addendum 4 to Permit #3010-03

Source	Lb/Day					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Five crushers (up to 500 TPH combined capacity)	5.28	2.59				
Three screens (up to 250 TPH combined capacity)	4.90	1.63				
Material transfer	9.31	3.07				
Pile forming	84.79	39.74				
Bulk loading	9.70	3.27				
Two Diesel generator (up to 825 kW combined capacity)	5.55	5.55	245.52	5.62	43.56	64.07
Haul roads	69.50	19.75				
<b>Total</b>	<b>189.03</b>	<b>75.60</b>	<b>245.52</b>	<b>5.62</b>	<b>43.56</b>	<b>64.07</b>

Worst case scenario – Winter Season Addendum

**Crushers (up to 460 ton/hour combined capacity)**

Maximum Process Rate: 460 ton/hr  
Hours of operation: 3500 hr/yr

PM Emissions:

Emission Factor: 0.0012 lbs/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.0012 lbs/ton \* 460 tons/hr = 0.55 lbs/hr  
Daily Calculations: 0.55 lb/hr \* 9.6 hr/day = 5.28 lb/day  
Annual Calculations: 0.55 lb/hr \* 3500 hr/yr \* 0.0005 ton/lb = 0.96 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.00054 lbs/ton \* 460 tons/hr = 0.27 lbs/hr  
Daily Calculations: 0.27 lb/hr \* 9.6 hr/day = 2.59 lb/day  
Annual Calculations: 0.27 lb/hr \* 3500 hr/yr \* 0.0005 ton/lb = 0.47 ton/yr

**Screens (up to 230 ton/hour combined capacity)**

Process Rate: 230 ton/hr  
Hours of operation: 3500 hr/yr

PM Emissions:

Emission Factor: 0.0022 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.0022 lb/ton \* 230 ton/hr = 0.51 lb/hr  
Daily Calculations: 0.51 lb/hr \* 9.6 hr/day = 4.90 lb/day  
Annual Calculations: 0.51 lb/hr \* 3500 hr/yr \* 0.0005 ton/lb = 0.89 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 0.00074 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
Hourly Calculations: 0.00074 lb/ton \* 230 ton/hr = 0.17 lb/hr  
Daily Calculations: 0.17 lb/hr \* 9.6 hr/day = 1.63 lb/day  
Annual Calculations: 0.17 lb/hr \* 3500 hr/yr \* 0.0005 ton/lb = 0.30 ton/yr

**Diesel Generator (up to 2 generators combined capacity)**

Generator Size = combined capacity up to 615 kW  
1kW = 1.341 hp  
615 kW \* 1.341 = 825 hp  
Hours of operation: 3500 hr/yr

PM Emissions

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
Hourly Calculations: 825 hp \* 0.0007 lb/hp-hr = 0.578 lb/hr  
Daily Calculations: 825 hp \* 0.0007 lb/hp-hr \* 9.6 hr/day = 5.55 lb/day  
Annual Calculation: 825 hp \* 0.0007 \* 3500 hr/yr \* 0.0005 lb/ton = 1.01 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
 Hourly Calculations:  $825 \text{ hp} * 0.0007 \text{ lb/hp-hr} = 0.578 \text{ lb/hr}$   
 Daily Calculations:  $825 \text{ hp} * 0.0007 \text{ lb/hp-hr} * 9.6 \text{ hr/day} = 5.55 \text{ lb/day}$   
 Annual Calculation:  $825 \text{ hp} * 0.0007 * 3500\text{hr/yr} * 0.0005 \text{ lb/ton} = 1.01 \text{ ton/yr}$

**NOx Emissions:**

Emission Factor: 0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
 Hourly Calculations:  $825 \text{ hp} * 0.031 \text{ lb/hp-hr} = 25.58 \text{ lb/hr}$   
 Daily Calculations:  $825 \text{ hp} * 0.031 \text{ lb/hp-hr} * 9.6 \text{ hr/day} = 245.52 \text{ lb/day}$   
 Annual Calculation:  $825 \text{ hp} * 0.031 * 3500\text{hr/yr} * 0.0005 \text{ lb/ton} = 44.76 \text{ ton/yr}$

**VOC Emissions:**

Emission Factor: 0.00071 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
 Hourly Calculations:  $825 \text{ hp} * 0.00071 \text{ lb/hp-hr} = 0.59 \text{ lb/hr}$   
 Daily Calculations:  $825 \text{ hp} * 0.00071 \text{ lb/hp-hr} * 9.6 \text{ hr/day} = 5.62 \text{ lb/day}$   
 Annual Calculation:  $825 \text{ hp} * 0.00071 * 3500\text{hr/yr} * 0.0005 \text{ lb/ton} = 10.25 \text{ ton/yr}$

**CO Emissions:**

Emission Factor: 0.0055 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
 Hourly Calculations:  $825 \text{ hp} * 0.0055 \text{ lb/hp-hr} = 4.54 \text{ lb/hr}$   
 Daily Calculations:  $825 \text{ hp} * 0.0055 \text{ lb/hp-hr} * 9.6 \text{ hr/day} = 43.56 \text{ lb/day}$   
 Annual Calculation:  $825 \text{ hp} * 0.0055 * 3500\text{hr/yr} * 0.0005 \text{ lb/ton} = 7.94 \text{ ton/yr}$

**SOx Emissions:**

Emission Factor: 0.00809 lb/hp-hr (AP-42, Table 3.3-1, 10/96)  
 Hourly Calculations:  $825 \text{ hp} * 0.00809 \text{ lb/hp-hr} = 6.67 \text{ lb/hr}$   
 Daily Calculations:  $825 \text{ hp} * 0.00809 \text{ lb/hp-hr} * 9.6 \text{ hr/day} = 64.07 \text{ lb/day}$   
 Annual Calculation:  $825 \text{ hp} * 0.00809 * 3500\text{hr/yr} * 0.0005 \text{ lb/ton} = 11.68 \text{ ton/yr}$

**Material Transfer**

Process Rate: 460 ton/hr  
 Number of Transfers: 15 transfers  
 Hours of operation: 3500 hr/yr

**PM Emissions:**

Emission Factor: 0.00014 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
 Hourly Calculations:  $0.00014 \text{ lb/ton} * 460 \text{ ton/hr} * 15 \text{ transfers} = 0.97 \text{ lb/hr}$   
 Daily Calculations:  $0.97 \text{ lb/hr} * 9.6 \text{ hr/day} = 9.31 \text{ lb/day}$   
 Annual Calculations:  $0.97 \text{ lb/hr} * 3500 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.70 \text{ ton/yr}$

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

Emission Factor: 0.000046 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
 Hourly Calculations:  $0.000046 \text{ lb/ton} * 460 \text{ tons/hr} * 15 \text{ transfers} = 0.32 \text{ lb/hr}$   
 Daily Calculations:  $0.32 \text{ lb/hr} * 9.6 \text{ hr/day} = 3.07 \text{ lb/day}$   
 Annual Calculations:  $0.32 \text{ lb/hr} * 3500 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.56 \text{ ton/yr}$

**Pile Forming**

Process Rate: 460 ton/hr  
 Number of Piles: 6 piles  
 Hours of operation: 3500 hr/yr

**PM Emissions:**

Emission Factor: 0.0032 lb/ton (AP-42, Section 13.2.4, 1/95)  
 Hourly Calculations:  $0.0032 \text{ lb/ton} * 460 \text{ ton/hr} * 6 \text{ piles} = 8.83 \text{ lb/hr}$   
 Daily Calculations:  $8.83 \text{ lb/hr} * 9.6 \text{ hr/day} = 84.79 \text{ lb/day}$   
 Annual Calculations:  $8.83 \text{ lb/hr} * 3500 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 15.45 \text{ ton/yr}$

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

Emission Factor: 0.0015 lb/ton (AP-42, Section 13.2.4, 1/95)  
 Hourly Calculations:  $0.0015 \text{ lb/ton} * 460 \text{ ton/hr} * 6 \text{ piles} = 4.14 \text{ lb/hr}$   
 Daily Calculations:  $4.14 \text{ lb/hr} * 9.6 \text{ hr/day} = 39.74 \text{ lb/day}$   
 Annual Calculations:  $4.14 \text{ lb/hr} * 3500 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 7.25 \text{ ton/yr}$

**Bulk Loading**

Process Rate: 460 ton/hr  
 Number of Loads 4 load  
 Hours of operation: 3500 hr/yr

**PM Emissions:**

Emission Factor: 0.0022lb/ton (AP-42, Table 11.19.2-2, 8/04)  
 Hourly Calculations: 0.0022 lb/ton \* 460 ton/hr = 1.01 lb/hr  
 Daily Calculations: 1.01 lb/hr \* 9.6 hr/day = 9.70 lb/day  
 Annual Calculations: 1.01 lb/hr \* 3500 hr/yr \* 0.0005 ton/lb = 1.77 ton/yr

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

Emission Factor: 0.00074 lb/ton (AP-42, Table 11.19.2-2, 8/04)  
 Hourly Calculations: 0.00074 lb/ton \* 460 ton/hr = 0.34 lb/hr  
 Daily Calculations: 0.34 lb/hr \* 9.6 hr/day = 3.27 lb/day  
 Annual Calculations: 0.34 lb/hr \* 3500 hr/yr \* 0.0005 ton/lb = 0.60 ton/yr

**Haul Roads**

Vehicle miles traveled: 5 VMT/day {Estimated}  
 Assumption: Rated Load Capacity < 50 tons  
 Hours of Operation: 3500 hr/yr  
 9.6 hr/day

**TSP Emissions:**

Emission Factor: 13.90 lb/VMT  
 Calculations: 5.0 VMT/day \* 13.90 lb/VMT = 69.50 lb/day  
 69.50 lb/day \* 365 day/yr \* 0.0005 ton/lb = 12.68 ton/yr

**PM-10 Emissions:**

Emission Factor: 3.95 lb/VMT  
 Calculations: 5 VMT/day \* 3.95 lb/VMT = 19.75 lb/day  
 19.75 lb/day \* 365 day/yr \* 0.0005 ton/lb = 3.60 ton/yr

**V. Existing Air Quality**

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>). Due to exceedances of the national standards for PM<sub>10</sub>, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM<sub>10</sub>. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM<sub>10</sub> State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM<sub>10</sub> emissions.

Addendum 4 to Permit #3010-03 is for a portable crushing/screening plant to be located in or within 10 km of certain PM<sub>10</sub> nonattainment areas during the summer season (April 1 through September 30). Summer season operations may include areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas, including, but not limited to Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte. Winter season (October 1 through March 31) operations may include only the location listed in Section II.A. of Addendum 4.

In the view of the Department, the amount of controlled emissions generated by the operation will not exceed any set ambient standard. In addition, Addendum 4 to Permit #3010-03 contains limitations and conditions that will be protective of the PM<sub>10</sub> nonattainment areas.



**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Thompson Falls Sand and Gravel  
P.O. Box 1143  
Thompson Falls, MT 59873

*Air Quality Permit Number:* 3010-03

*Preliminary Determination Issued:* June 16, 2006

*Department Decision:* July 5, 2006

*Permit Final:* July 21, 2006

1. *Legal Description of Site:* This permit would be for the operation of a portable crushing/screening facility to be initially located in the SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub> of Section 15, Township 21 North, Range 29 West, in Sanders County. Permit #3010-03 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program, and those areas considered tribal lands. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*
2. *Description of Project:* The permit application requested additional equipment to be operated at the facility. Thompson would operate a portable crushing/screening facility consisting of four crushers (up to 460 TPH combined capacity), two 3-deck screens (up to 230 TPH combined capacity) two diesel generators (up to 615 kW combined capacity), and associated equipment.
3. *Objectives of the Project:* Thompson desires to increase business and revenue for the company. This objective could be met through operating the crushing/screening facility, to generate aggregate for sale and use. Thompson would be allowed to operate under this permit at various locations throughout Montana, excluding those areas that have a Department approved permitting program.
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 to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Thompson demonstrated compliance with all applicable rules and regulations as required for 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 #3010-03 and in Addendum 4 to the permit.
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
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 Resource				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 & Biological Effects:**

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the areas in which the crushing/screening operations occur. However, the crushing/screening operations are portable and the impacts would be limited by the short-term nature of the operation. Furthermore, since Thompson would generally locate at a preexisting pit, additional impacts to the terrestrial and aquatic life and habitats would be minor as a result of the crushing/screening operations.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the crushing/screening would operate, there would only be minor impacts on the water quality, quantity, and distribution because of the relatively small size and temporary nature of the operation. While deposition of pollutants would occur, the Department determined that any impacts from deposition of pollutants would be minor. As described in 7.F. of the EA, due to the conditions placed in Permit #3010-03 and the size and nature of the facility, the maximum impacts from the air emissions from this facility would be minor.

Water would be required for dust suppression on surrounding roadways and areas of operation, but would only cause a minor disturbance to the area. Also relatively small amounts of water would be needed for adequate dust suppression. Therefore, the crushing/screening plant would have only minor impacts to water quality, quantity, and distribution in the proposed area of operation.

C. Geology and Soil Quality, Stability, and Moisture

There would be minor impacts to the geology and soil quality, stability, and moisture near the crushing/screening area due to facility construction, increased vehicle traffic, the use of water to control dust, and deposition of pollutants from the crushing/screening

operation. As explained in Section 7.F. of this EA, the relatively small size and temporary nature of the operation and conditions placed in Permit #3010-03 would minimize the impacts from deposition.

As a result, pollution deposition and water used to control emissions would result in only minor disturbance to the soil. The soils in the affected area would be impacted by the crushing/screening operations due to the additional equipment and use of the crushing/screening facility. However, given the relatively small size and portable and temporary nature of the operation, any impacts would be minor.

D. Vegetation Cover, Quantity, and Quality

There would be minor impacts on the vegetative cover, quantity, and quality because small amounts of vegetation would likely be disturbed from the crushing/screening operation. Because the crushing/screening operation would be located in an existing and previously disturbed open cut pit, any physical effects on vegetation cover, quantity, and quality would be minor. In addition, pollutant deposition would occur on the surrounding vegetation. However, as explained in Section 7.F. of this EA, the Department determined that, due to the relatively small size of the operation, dispersion characteristics of pollutant emissions, and conditions placed in Permit #3010-03, any impacts from the deposition of pollutants would be minor. Also, because the water usage would be minimal (as described in Section 7.B.) and the associated soil disturbance would be minimal (as described in Section 7.C.), corresponding vegetative impacts would also be minor.

E. Aesthetics

The crushing/screening operations would be visible and would create additional noise in the area. Permit #3010-03 includes conditions to control emissions (including visible emissions) from the plant. Because the crushing/screening operations are small and temporary, any noise impacts would be minimal. Restrictions have been placed on the crushing/screening operations to protect the air quality at any location in or within 10 kilometers of certain PM<sub>10</sub> nonattainment areas. Overall, the impacts to the aesthetics of the surrounding area would be minor.

F. Air Quality

The air quality impacts from the crushing/screening operations would be minor. Permit #3010-03 includes conditions limiting the opacity from the plant, as well as requiring water spray bars to control air pollution. Additionally, the facility is considered a minor source of air pollution by industrial standards. While deposition of pollutants would occur as a result of operating the facility, the Department determined that characteristics of pollutants, the atmosphere, (wind speed, wind direction, ambient temperature, etc.) and conditions that would be placed in Permit #3010-03. 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 proposed facility would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) to identify any species of special concern associated with the initial proposed site location. Search results indicated that there are no such environmental resources in the area. Area, in this case, is defined by the township and range of the proposed site, with an additional one-

mile buffer. The location has been identified by Thompson as the SW¼, NE¼, NW¼ of Section 15, Township 21 North, Range 29 West, in Sanders County, Montana. The proposed project would have no impact on any unique endangered, fragile, or limited environmental resources because it is an existing pit with no change to existing impacts.

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

The crushing/screening operations would require only small quantities of water, air, and energy for proper operation, due to the size of the facility. Small amounts of water would be used for dust control from the equipment, the stockpiles, and the associated haul roads. Further, as described in Section 7.F. of this EA, pollutant emissions generated from the facility would have minimal impacts on air quality in the immediate and surrounding area because of the small size and intermittent operations of the equipment. Energy demands to operate the facility would also be minor because the operation would consist of relatively small equipment and because the operations would be intermittent. Therefore, any impacts upon these environmental resources; water, air, and energy, would be minor.

#### I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. According to the response from SHPO, there are no previously recorded historical or archeological sites within the designated search locale. Additionally, the crushing/screening operations would locate within previously disturbed industrial sites typically used for portable crushing/screening operations. According to past correspondence from the Montana State Historic Preservation Office, there is low likelihood of adverse disturbance to any archaeological or historic site, given previous industrial disturbance within an area. Therefore, the operation would not impact on any known historic or archaeological sites.

#### J. Cumulative and Secondary Impacts

The crushing/screening operations would cause minor cumulative and secondary environmental impacts to the physical and biological aspects of the human environment because the facility would generally have only seasonal, intermittent, and temporary use, and because the facility is considered a minor source of air pollutants by industrial standards. The facility would generate emissions of particulate matter (PM), PM<sub>10</sub>, NO<sub>x</sub>, CO, SO<sub>x</sub>, and VOC. Noise would also be generated from the sites, but would cause minimal disturbance because the area of operation is sparsely populated and because other noise sources would be located in the area. There is potential for other operations to locate at these sites. However, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the proposed sites. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #3010-03. Overall, cumulative and secondary impacts would be minor.

8. Potential economic and social effects: 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
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 & Social Effects:**

A. Social Structures and Mores

The additional equipment at the crushing/screening operation would cause no disruption to the social structures and mores in the area because the source is small and would initially be located in a sparsely populated and remote location. The nearest community is Thompson Falls. Therefore, the additional crushing/screening of sand and gravel would have no impact upon native or traditional lifestyles or communities of the proposed areas of operation.

B. Cultural Uniqueness and Diversity

The Department determined that the operations would not impact the cultural uniqueness and diversity of this area of operation because the facility is a small source that would be operating in a sparsely populated and remote location. The area is an existing open cut pit that has been previously used for aggregate crushing/screening operations, and is privately owned. Surrounding land area would continue to be used predominantly for hay production and animal grazing and pasturing. Therefore, because the operation would not change the predominant use of the area, the Department determined there would be no impact to the cultural uniqueness and diversity of the area of operation.

C. Local and State Tax Base and Tax Revenue

The additional equipment at the crushing/screening facility would have little effect on the local and state tax base and tax revenue because the facility would be small by industrial standards. The facility is a temporary source; however, most of the crushing that Thompson does is in the vicinity of the Thompson Falls area. Although portable, the crushing/screening operations would be steady and would employ people in the area. The addition of the new equipment and the renewal of the addendum will not result in any new employment with Thompson.

D. Agricultural or Industrial Production

The proposed addition of equipment at the crushing/screening facility would be located in a previously developed gravel pit. Because of the location and topography of the area, along with the seasonal, temporary, and intermittent use of the facility, only minor effects to agricultural land would result. Thompson would be responsible to comply with state and federal environmental regulations in regard to operations at the sites. Further, the crushing/screening operations would be small by industrial standards and, thus, would have only a minor impact on local industrial production.

E. Human Health

Permit #3010-03 would include conditions to ensure that the crushing/screening operations 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. As described in Section 7.F. of this EA, the air emissions from this facility would be minimized by water spray and opacity limitations established in Permit #3010-03 and Addendum 4. Therefore, any associated impacts to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed crushing/screening operations would not affect any access to recreational and wilderness activities because the site would be a previously developed pit which is privately owned. Minor effects on the quality of recreational activities would be created by noise from the sites; however, any impacts would be minor, intermittent, and temporary due to the portable nature of the crushing/screening operations.

G. Quantity and Distribution of Employment

The activities from the crushing/screening operations would not result in any increased employment or a change in the distribution of employment in the area. Thompson would utilize current employees for the crushing/screening operation.

H. Distribution of Population

The crushing/screening operations would not disrupt the normal population distribution in the area. Thompson employees may utilize temporary housing or hotels for the duration of projects that keep them from home. However, no distribution of population would result from the crushing/screening operations.

I. Demands of Government Services

Government services would be required for acquiring the appropriate permits from government agencies and determining compliance with those permits. There would be a slight increase in vehicle traffic resulting from the additional equipment at the crushing/screening facility. However, such demands on governmental services to regulate traffic would be minor due to the relatively small size and temporary nature of the operation. Overall, demands for government services would be minor.

J. Industrial and Commercial Activity

The addition of equipment at the crushing/screening facility would represent only a minor increase in the industrial activity in the given area because of the small size, portable, and temporary nature of the facility. No additional industrial or commercial activity would result from the operation of additional equipment at the crushing/screening facility. Therefore, there would only be minor impacts to the industrial and commercial activity of the surrounding area.

K. Locally Adopted Environmental Plans and Goals

This permit would be protective of certain PM<sub>10</sub> nonattainment areas that are covered in the State Implementation Plans (SIP). In addition to Permit #3010-03, Addendum 4 contains more restrictive limits and conditions for operation in or within 10 km of any PM<sub>10</sub> nonattainment areas during the summer months. Further, because this is an existing portable facility and would have intermittent and seasonal operations, any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The additional equipment at the crushing/screening facility would cause minor cumulative and secondary environmental impacts to the physical and biological aspects of the human environment because the facility would generally have only seasonal, intermittent, and temporary use, and because the facility is considered a minor source of air pollutants by industrial standards. There is potential for other operations to locate at these sites. However, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at this or any other site. The crushing/screening operations would be limited by Permit #3010-03 to total particulate emissions of 250 tons per year or less from non-fugitive crushing/screening operations and any other additional equipment used at the site. In addition, crushing and screening limitations have been placed in Addendum 4 to Permit #3010-03 to further protect the ambient air quality standards in or within 10 km of any Montana PM<sub>10</sub> nonattainment area during the summer.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed facility would be minor; therefore, an EIS is not required. In addition, the source would be applying the Best Available Control Technology (BACT) and the analysis indicates compliance with all applicable air quality rules and regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality - Permitting and Compliance Division (Air Resources Management Bureau and Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

EA prepared by: Julie Merkel

Date: June 7, 2006