

## AIR QUALITY PERMIT

Issued To: Sandon Gravel & Excavating, Inc.  
P.O. Box 5557  
Kalispell, MT 59903

Permit: #3270-01  
Application Complete: 1/20/04  
Preliminary Determination Issued: 2/27/04  
Department's Decision Issued: 3/16/04  
Permit Final: 04/01/04  
AFS #: 777-3270

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

### SECTION I. Permitted Facilities

#### A. Plant Location

Sandon operates a portable crushing/screening operation that will originally locate in the NE ¼, of the SE ¼, of Section 35 and the W ½, of the W ½, of Section 36, Township 30 North, Range 21 West in Flathead County, Montana. However, Permit #3270-01 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, those areas considered tribal lands, or those 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.* A list of the permitted equipment is contained in Section I.A of the permit analysis.

#### B. Current Permit Action

On January 20, 2004, Sandon submitted a complete permit application for the addition of a crushing/screening unit containing a 1959 Pioneer (13"x36") jaw crusher (maximum capacity of 200 tons per hour (TPH)), with an attached (30"x24") rolls crusher (maximum capacity of 200 TPH), an attached screen (5'x12'), a diesel generator (up to 125 kilowatts (kW)), and associated equipment to the existing screening operation. The Department incorporated the new equipment into the permit with the current permit action. In addition, the permit was updated to reflect the current language and rule references used by the Department.

### SECTION II. Conditions and Limitations

#### A. Emission Limitations

1. Sandon 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 (ARM 17.8.340, ARM 17.8.752, and 40 CFR Part 60, Subpart OOO).
2. Sandon shall not cause or authorize to be discharged into the atmosphere from any other NSPS affected equipment, such as the screen or conveyor transfers, any visible emissions that 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. Sandon shall not cause or authorize 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 (ARM 17.8.308 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 17.8.752).
5. Sandon shall not cause or authorize to be discharged into the atmosphere from any street, road, or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes and must take reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
6. Sandon 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. Sandon shall not operate more than two crushers at any given time and the maximum combined rated design capacity shall not exceed 400 tons per hour (ARM 17.8.749).
8. Crushing production from the facility is limited to 3,504,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. Sandon shall not operate more than two screens at any given time and the maximum combined rated design capacity shall not exceed 250 tons per hour (ARM 17.8.749).
10. Screening production from the facility is limited to 3,066,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. Sandon shall not operate more than two diesel generators/engines at any given time and the maximum combined rated design capacity shall not exceed 138 kW (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Sandon, 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. Sandon shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, as appropriate (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 startup, 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 Sections II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A 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 portable 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. Sandon 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 Sandon as a permanent business record for at least 5 years following the date of the measurement, must be submitted to the Department upon request, and must be available at the plant site for inspection by the Department (ARM 17.8.749).
3. Sandon 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 most recent emission inventory report and sources identified in Section I.A of 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).

4. Sandon 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 emission unit. 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(1)(d) (ARM 17.8.745).
5. Sandon shall document, by month, the total combined crushing production for the facility. By the 25<sup>th</sup> day of each month, Sandon shall total the combined crushing production during the previous 12 months to verify compliance with the limitation in Section II.A.8. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

6. Sandon shall document, by month, the total combined screening production for the facility. By the 25<sup>th</sup> day of each month, Sandon shall total the combined screening production during the previous 12 months to verify compliance with the limitation in Section II.A.10. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

### SECTION III: Addendum

Sandon shall comply with all conditions in Addendum 1 to this permit, as appropriate.

### SECTION IV. General Conditions

- A. Inspection – Sandon 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 Sandon fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Sandon 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 postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. The Department's decision on the application is not final until 15 days have elapsed and there is no request for a hearing under this section.
- 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 Sandon 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.

- 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. Sandon shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas that have a Department approved permitting program.

Permit Analysis  
Sandon Gravel & Excavating, Inc.  
Permit #3270-01

I. Introduction/Process Description

A. Permitted Equipment

Sandon Gravel & Excavating, Inc. (Sandon) operates a portable Thomas Pro Tough 300 shaker screen (maximum capacity 150 tons per hour (TPH)); a diesel generator (13 kilowatts (kW)); a 1959 Pioneer (13"x36") jaw crusher (maximum capacity 200 TPH), with an attached (30'x24") rolls crusher (maximum capacity 200 TPH), attached (5'x12') screen (maximum capacity 200 TPH), a diesel generator (125 kW); and associated equipment.

B. Source Description

Sandon proposes to use this crushing/screening facility to crush, screen, and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed material is loaded into the shaker screen to remove all oversized rock. A conveyor transfers the remaining material to the screen, where the screen further separates the material by size. The desired product is then conveyed to one stockpile and the larger material is conveyed on to a self-contained crushing/screening unit. Materials are passed through the jaw crusher, rolls crusher, and screen to further reduce the aggregate into the desired product size and the material is then conveyed to the appropriate stockpile.

C. Permit History

On August 1, 2003, Sandon was issued **Permit #3270-00** to operate a portable Thomas Pro Tough 300 Shaker Screen (maximum capacity 150 tons per hour), a 2001 Kubota D905 Diesel Generator (maximum capacity of 13 Kilowatts maximum capacity), and associated equipment.

D. Current Permit Action

On January 20, 2004, Sandon submitted a complete permit application for the addition of a crushing/screening unit containing a 1959 Pioneer (13"x36") jaw crusher (maximum capacity of 200 TPH), with an attached (30'x24") rolls crusher (maximum capacity of 200 TPH), an attached screen (5'x12'), a diesel generator (maximum capacity of 125 kW), and associated equipment, to the existing screening operation. The Department incorporated the new equipment into the permit with the current permit action. In addition, **Addendum 1** was established for summertime operations in or within 10 km of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. Permit #3270-00 was updated to reflect the current language and rule references used by the Department. **Permit #3270-01** replaced Permit #3270-00 and Addendum 1 was established.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) 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 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 subchapter, 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).

Sandon 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 that a public nuisance is created.

### 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>

Sandon must comply 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, Sandon 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 rule.
  4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
  5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
  6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (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 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 Part 60, shall comply with the standards and provisions of 40 CFR Part 60. In order for a crushing/screening plant to be subject to NSPS requirements, two specific criteria must be met. First, the screening plant must meet the definition of an affected facility. Second, the equipment in question must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Sandon, the screening equipment permitted in Permit #3270-01 is subject to NSPS requirements. The cumulative rated capacity of the initial crushers is over the NSPS threshold of 150 TPH and the date of construction is after August 31, 1983. Therefore, the screen is an NSPS affected facility (40 CFR Part 60, Subpart A General Provisions and Subpart OOO, Non-Metallic Mineral Processing Plants).
- 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 Sandon 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. Sandon 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 asphalt plant, crusher, or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Sandon has a PTE more than 15 tons per year of total particulate matter (PM), PM<sub>10</sub>, and oxides of nitrogen (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 do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Sandon 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. Sandon submitted an affidavit of publication of public notice for the January 25, 2004, issue of the *Daily Inter Lake*, a newspaper of general circulation in the town of Kalispell, MT, in Flathead 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 IV 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 Sandon 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 Sandon, 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 those found in its permit, 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 (excluding fugitive emissions) of any air pollutant.

- 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 criteria 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.
    - 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 #3270-01 for Sandon, the following conclusions were made:
    - a. The facility's PTE is less than 100 tons/year for any criteria 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's screening unit is subject to current NSPS standards.
    - 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, the Department determined that Sandon will be a minor source of emissions as defined under Title V.

### III. Emission Inventory

Source	Tons/Year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
1959 Pioneer (13"x36") Jaw crusher (up to 200 TPH)	2.19	1.05				
1979 Pioneer (30"x24") Rolls crusher (up to 200 TPH)	2.19	1.05				
1959 Pioneer (5'x12') screen (up to 200 TPH)	10.35	4.93				
Thomas Pro Tough Shaker screen (up to 150 TPH)	10.35	4.93				
Material Transfer	16.51	7.97				
Pile Forming	11.04	5.26				
Bulk Loading	3.68	1.75				
Diesel Generator (13 KW)	0.17	0.17	2.37	0.19	2.79	0.16
Diesel Generator (up to 125 KW)	1.62	1.62	22.76	1.81	4.90	1.51
Haul Roads	2.74	1.23				
<b>Total</b>	<b>60.84</b>	<b>29.96</b>	<b>25.13</b>	<b>2.00</b>	<b>7.69</b>	<b>1.67</b>

A complete emission inventory for Permit #3270-01 is on file with the Department.

#### IV. BACT Determination

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

Two types of emissions controls are readily available and used for dust suppression at the site and surrounding area of operations. These two control methods are water and chemical dust suppressant. Chemical dust suppressant can be used for dust suppression on the area surrounding the crushing/screening equipment and for emissions on the crushing/screening operations. However, because water is more readily available, is more cost effective, is as effective as chemical dust suppressant in controlling emissions upon the surrounding area of operations, is more environmentally friendly, and is more effective in controlling emissions from equipment operations, water has been identified as the most feasible method of pollution control of particulate emissions from crushing/screening operations and operations in the general plant area. However, the use of a chemical dust suppressant may be used to assist in controlling particulate emissions from the surrounding plant area.

In the operation of the crushing/screening equipment, Sandon shall not cause or authorize 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. Sandon shall not cause or authorize to be discharged into the atmosphere from the affected screen, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes. Sandon must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. Sandon is required to use water spray bars and water and chemical dust suppressant, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. The Department determined that using water spray bars and water and chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing/screening operations.

Engines, with their associated emissions, can be divided into two categories. These categories are small and large industrial diesel engines. A small engine is defined as 545 kW and below. Anything larger than that is considered a large industrial engine. Technological methods for controlling emissions can be further divided between those engines below 75 kW and those above 75 kW. Variable costs are associated with engine size and fuel usage and the technologies used to control emissions from these power units. The Department has historically maintained that, due to the amount of PM, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, and SO<sub>x</sub> emissions produced by industrial diesel engines/generators, add-on controls would be cost prohibitive.

Current estimates (net present year 2004) of the associated costs for implementing controls upon industrial engines is available and has been estimated for the following criteria pollutants, PM, NO<sub>x</sub>, and SO<sub>x</sub>. The associated costs per ton of pollutant emitted has been estimated as follows; \$8,700/ton for PM, \$810/ton for NO<sub>x</sub>, and \$200/ton for SO<sub>x</sub>. Associated costs for implementing controls includes costs for fuel usage, oil change maintenance, and equipment part maintenance. For large industrial diesel generators, the cost increases above those for small industrial diesel generators.

Estimated equipment costs (in Year 2000 dollars) are approximately \$1,500 and \$5,000 for the proposed 13 kW and 125 kW diesel generators. These sources are relatively small industrial diesel generators, as are their associated emissions. Current emissions estimates from them are below any ambient standard, and the Department has determined it is not economically reasonable or technologically feasible to require additional controls. While the Department determined that no additional control constitutes BACT for these generators, there are some

proposed technologies that may be deemed cost effective, as they are made readily available. Cost estimates for reducing pollutants of interest (in net present year 2004 dollars) by implementing these experimental technological controls upon industrial engines/generators (including for fuel usage, oil change maintenance, and equipment part maintenance) would be approximately \$8,700/ton for PM, \$810/ton for NO<sub>x</sub>, and \$200/ton for SO<sub>x</sub>. Once these controls become readily available, the Department will review the feasibility of requiring controls for these pollutants. Indications from the engine manufacturers association and engine makers is that these prototypes will be available in 2005. In the meantime, Sandon would be required to comply with operational limits as outlined in Permit #3270-01 and Addendum 1. The control option selected has controls and control costs similar to other recently permitted similar sources. These industrial diesel engines/generators are capable of achieving the established emissions limits.

#### V. Existing Air Quality

Permit #3270-01 will cover the operation 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 km of certain PM<sub>10</sub> nonattainment areas. Addendum 1 will cover the operations at certain locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas, including the initial site location (the SE ¼ of Section 35 and the W ½ of the W ½ of Section 36, Township 30 North, Range 21 West, in Flathead County, Montana). Included in the permit and addendum are operational conditions and limitations that would protect air quality for this site and the surrounding area. Also, this facility is a portable source that would operate on an intermittent and temporary basis and any effects to existing air quality will be minor and short-lived.

#### VI. Air Quality Impacts

Permit #3270-01 will cover the operations of this portable crushing/screening plant while operating in those areas within Montana, classified as being in attainment with federal ambient air quality standards, and those areas still undefined (not yet classified). Additionally, Addendum 1 will cover the operations in or within 10 km of certain PM<sub>10</sub> nonattainment areas, including the initial site location. Addendum 1 is currently valid only for the summer months (April 1-September 30) for the equipment operating at any location in or within 10 kilometers of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM<sub>10</sub> nonattainment areas. Thus, the limitations and conditions established in Addendum 1 would further reduce emissions in these areas and would be protective of the ambient air quality standards in these areas during the summer months. Sandon would not be allowed to operate in these nonattainment areas during the winter months. In addition, this source is portable and any air quality impacts will be minor and short-lived.

Addendum 1  
Sandon Gravel & Excavating, Inc.  
Permit #3270-01

An addendum to air quality Permit #3270-01 is issued to Sandon Gravel & Excavating, Inc. (Sandon), 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:

I. Permitted Equipment

Sandon operates a portable Thomas Pro Tough 300 shaker screen (maximum capacity of 150 tons per hour (TPH)); a diesel generator (maximum capacity 13 Kilowatts (kW)); a 1959 Pioneer (13"x36") jaw crusher (maximum capacity of 200 TPH), with an attached (30"x24") rolls crusher (maximum capacity of 200 TPH), attached (5'x12') screen (maximum capacity of 200 TPH), a diesel generator (maximum capacity 125 kW); and associated equipment. Sandon will operate at various locations throughout Montana, including in or within 10 kilometers of the following PM<sub>10</sub> nonattainment areas: Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish.

II. Seasonal and Site Restrictions

Addendum 1 applies to the Sandon 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) - Sandon is not allowed to operate in or within 10 km of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, or Whitefish PM<sub>10</sub> nonattainment areas.
- B. During the summer season (April 1-September 30) - Sandon may operate at any location in or within 10 kilometers of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM<sub>10</sub> nonattainment areas.
- C. Sandon shall comply with the limitations and conditions contained in Addendum 1 to Permit #3270-01 while operating in or within 10 km of any of the previously identified PM<sub>10</sub> nonattainment areas. Addendum 1 shall be valid until revoked or modified. The Department of Environmental Quality (Department) reserves the authority to modify Addendum 1 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 Requirements

- 1. Water spray bars must be available and operated on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.752).
- 2. Sandon shall not cause or authorize to be discharged into the atmosphere from any 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).
- 3. Sandon 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 (ARM 17.8.749).

4. Sandon 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 17.8.752).
5. The total combined crusher production for the two crushers shall not exceed 9,600 tons during any rolling 24-hour time period (ARM 17.8.749).
6. The total combined screen production for the two screens shall not exceed 8,400 tons during any rolling 24-hour time period (ARM 17.8.749).

B. Operational Reporting Requirements

1. Sandon shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).
2. Sandon shall provide the Department with written notice of relocation of the permitted equipment within 15 working days before the physical transfer of equipment (ARM 17.8.765).
3. Production information for the sites covered by this addendum must be submitted to the Department with the annual emissions inventory or within 30 days of completion of the project. The information must include (ARM 17.8.749):
  - a. Tons of material crushed by each crusher at each site,
  - b. Tons of material screened by each screen at each site,
  - c. Tons of bulk material loaded at each site,
  - d. Daily hours of operation at each site,
  - e. Gallons of diesel used by the generator at each site,
  - f. Fugitive dust information consisting of all plant vehicles, including the following:
    - 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 and 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. Sandon shall document, by day, the total crushing production. Sandon shall sum the total crushing production during the previous 24 hours to verify compliance with the limitation in Section III.A.5. A written report of compliance and the emissions inventory shall be

submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.749).

5. Sandon shall document, by day, the total screening production. Sandon shall sum the total screening production during the previous 24 hours to verify compliance with the limitation in Section III.A.6. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.749).



Addendum 1 Analysis  
Sandon Gravel & Excavating, Inc.  
Permit #3270-01

I. Permitted Equipment

Sandon Gravel & Excavating, Inc. (Sandon) operates a portable Thomas Pro Tough 300 shaker screen (maximum capacity of 150 tons per hour (TPH)); a diesel generator (maximum capacity of 13 Kilowatts (kW)); a 1959 Pioneer (13"x36") jaw crusher (maximum capacity of 200 TPH), with an attached (30'x24") rolls crusher (maximum capacity of 200 TPH), an attached (5'x12') screen (maximum capacity of 200 TPH), diesel generator (maximum capacity of 125 kW); and associated equipment.

II. Source Description

Sandon proposes to use this crushing/screening facility to crush, screen, and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed material is loaded into the shaker screen to remove all oversized rock. A conveyor transfers the remaining material to the screen, where the screen further separates the material by size. The desired product is then conveyed to one stockpile and the larger material is conveyed on to a self-contained crushing/screening unit. Materials are passed through the jaw crusher, rolls crusher, and screen to further reduce the aggregate into the desired product size and the material is then conveyed to the appropriate stockpile.

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 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 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.
- 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; and
3. The source will not have any significant impact on any nonattainment area or any Class I area.

Sandon must submit proof of compliance with the transfer and public notice requirements when they transfer to the location(s) covered by this addendum and will only be allowed to stay in the new location for a period of less than 1 year. Also, implementing the conditions and controls of this addendum will keep Sandon from having a significant impact on certain PM<sub>10</sub> nonattainment areas.

IV. Emission Inventory

Source	Lbs/Day					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
1959 Pioneer (13"x36") Jaw crusher (up to 200 TPH)	12.00	5.76				
1979 Pioneer (30"x24") Rolls crusher (up to 200 TPH)	12.00	5.76				
1959 Pioneer (5'x12') screen (up to 200 TPH)	56.70	27.00				
Post 1983 Thomas Pro Tough Shaker screen (up to 150 TPH)	56.70	27.00				
Material Transfer	90.48	43.68				
Pile Forming	60.48	28.80				
Bulk Loading	20.16	9.60				
Diesel Generator (up to 13 KW)	0.92	0.92	12.97	1.03	2.79	0.86
Diesel Generator (up to 125 KW)	8.85	8.85	124.71	9.94	26.87	8.25
Haul Roads	15.00	6.75				
	333.29	164.12	137.68	10.97	29.66	9.11

- A complete emissions inventory for Permit #3270-01 is on file with the Department.

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, the 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 identified these sources to be the major contributors to PM<sub>10</sub> emissions.

VI. Air Quality Impacts

Permit #3270-01 will cover the operations of this portable crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program, those areas that are tribal lands, or those areas in or within 10 kilometers (km) of certain PM<sub>10</sub> nonattainment areas. The initial site location has been identified as the NE ¼ of the SE ¼ of Section 35 and the W ½ of the W ½ of Section 36, Township 30 North, Range 21 West of Flathead County, Montana. Addendum 1 to Permit #3270-01 will cover the operations of this portable crushing/screening plant, while operating in or within 10 km of certain PM<sub>10</sub>

nonattainment areas during the summer months (April 1 through September 30). Thus, the limitations and conditions established in Addendum 1 would further reduce emissions in these areas and would be protective of the ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal.

Permit #3270-01 and Addendum 1 cover a portable crushing/screening plant that proposes to originally locate at sites in or within 10 km of certain PM<sub>10</sub> nonattainment areas. The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would operate on an intermittent and temporary basis and any effects on air quality will be minor and short-lived.

#### VII. Ambient Air Impact Analysis

The amount of controlled emissions generated by the operation of the portable crushing/screening plant will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minor and short-lived.

#### VIII. Taking or Damaging Analysis

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

#### IX. Environmental Assessment

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

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Permitting and Compliance Division  
Air Resources Management Bureau  
1520 East Sixth Avenue  
P.O. Box 200901  
Helena, Montana 59620-0901  
(406) 444-3490

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Sandon Gravel & Excavating, Inc.  
P.O. Box 5557  
Kalispell, MT 59903

*Air Quality Permit Number:* 3270-01

*Preliminary Determination Issued:* February 27, 2004

*Department Decision Issued:* March 16, 2004

*Permit Final:* April 1, 2004

1. **Legal Description of Site:** Sandon submitted a permit application to operate a portable crushing/screening plant that would originally locate in the NE ¼ of the SE ¼ of Section 35 and the W ½ of the W ½, of Section 36, Township 30 North, Range 21 West of Flathead County, Montana. However, Permit #3270-01 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program. Addendum 1 applies to the Sandon facility while operating at any location 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.* An addendum to this air quality permit would be required if Sandon intends to locate in or within 10 kilometers of certain PM<sub>10</sub> nonattainment areas.
2. **Description of Project:** Sandon proposes to use this crushing/screening facility to crush, screen, and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed material is loaded into the shaker screen to remove all oversized rock. A conveyor transfers the remaining material to the screen, where the screen further separates the material by size. The desired product is then conveyed to one stockpile and the larger material is conveyed on to a self-contained crushing/screening unit. Materials are passed through the jaw crusher, rolls crusher, and screen to further reduce the aggregate into the desired product size and conveyed to the appropriate stockpile.
3. **Objectives of Project:** The object of the project would be to produce business and revenue for the company through the increased sale and use of aggregate products. The issuance of Permit #3270-01 and Addendum 1 would allow Sandon to operate the permitted equipment at various locations throughout Montana, including the proposed initial site location.
4. **Additional Project Site Information:** In many cases, this portable facility may move to a general site location or open cut pit, which has been previously permitted through the Industrial and Energy Minerals Bureau (IEMB). If this were the case, additional information for the site would be found in the Mined Land Reclamation Permit for that specific site.
5. **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 Sandon demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.

6. *A Listing of Mitigation, Stipulations, and Other Controls:* A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in Permit #3270-01.
7. *Regulatory Effects on Private Property Rights:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.
8. *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 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 AND BIOLOGICAL EFFECTS:**

The following comments have been prepared by the Department.

**A. Terrestrial and Aquatic Life and Habitats**

Terrestrials would use the same area as the crushing/screening operations. The crushing/screening operations would be considered a minor source of emissions, with intermittent and seasonal operations. Furthermore, the air emissions would have only minor effects on terrestrial and aquatic life because facility emissions would have good pollutant dispersion in the area of operations (See Section 8.F). Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life could result from water runoff and pollutant deposition, but such impacts would be minor because the facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be required to be used for pollution control. Since good dispersion of air pollutants would occur in the proposed area of operation (see Section 8.F of this EA) and because only a minor amount of air emissions would be generated, only minor deposition would occur. Also, the nearest water body is over 100 meters away from the proposed operational site. At such a distance, only minor and temporary effects to aquatic life and habitat would be expected from the proposed crushing/screening operation because only minor amounts of pollutants would deposit to the water body (due the minor amount of emissions generated and the diffusion of pollutant emissions).

B. Water Quality, Quantity, and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. However, water use would only cause a minor disturbance to these areas, because only relatively small amounts of water would be needed. Therefore, at most, only minor surface and groundwater quality impacts would be expected as a result of using water for dust suppression because only small amounts of water would be required for pollution control and deposition of air pollutants upon water bodies would be minor (as described in Section 8.F of this EA).

C. Geology and Soil Quality, Stability, and Moisture

The crushing/screening operations would have only minor impacts on soils at the proposed site location (an existing and permitted open cut pit) because the facility would be relatively small in size, would be required to use only small amounts of water for pollution control, and would have seasonal and intermittent operations. Also, the deposition of air pollutants on soils would be minor (as described in Section 8.F of this EA) because relatively small amounts of pollution would be generated and pollutant dispersion would greatly minimize the impacts from the pollution. Therefore, any effects on geology and soil quality, stability, and moisture at the proposed operational site would be minor.

D. Vegetation Cover, Quantity, and Quality

Because the facility would operate in an existing open-cut pit where vegetation has been previously removed/disturbed, because the facility would be a relatively minor source of emissions and because the air emissions will be greatly dispersed (see Section 8.F), impacts on vegetation from the project would be minor. Also, because the water usage would be minimal (as described in Section 8.B) and the associated soil disturbance would be minimal (as described in Section 8.C) corresponding vegetative impacts from facility construction would be minor.

E. Aesthetics

The crushing/screening operation would be visible and would create additional noise in the area. However, Permit #3270-01 and Addendum 1 would include conditions to control emissions, including visible emissions, from the plant. Also, because the crushing/screening operation would be portable, would operate on an intermittent and seasonal basis, and would locate within an open-cut pit, any visual and noise impacts would be minor and short-lived.

F. Air Quality

The air quality impacts from the emissions of the crushing/screening operations would be minor because Permit #3270-01 would include conditions limiting the facility's opacity and the crushing/screening production from the plant, as well as would require water spray bars and other means to control air pollution. Additionally, Addendum 1 would place further limitations on production, opacity, and hours of operation. Permit #3270-01 would also limit total emissions from the crushing/screening operation and any additional Sandon equipment operated at the site to 250 tons/year or less, excluding fugitive emissions.

This facility would be used on a temporary and intermittent basis, thereby further reducing air quality impacts from the facility emissions. Further, pollutant deposition from the facility would be minimal because the pollutants would be widely dispersed from atmospheric mixing (pollutant dilution). Therefore, pollutant emissions would only have minor effects upon surrounding soils, vegetation, water resources, human populations, and terrestrial and aquatic life as a result of deposition and accumulation of these pollutants. Good ventilation and pollutant dispersion would

result from factors such, wind speed, wind direction, little vegetative cover, and topography and development within the area. Therefore, air quality impacts from operating the crushing/screening equipment in this area would be minor

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

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operation, contacted the Montana Natural Heritage Program (MNHP). Search results concluded there are 14 such environmental resources found within the defined area. The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer.

Plant species of concern include the *Byrum Calobryoides*, *Cirsium Bervistylum*, *Aloina Brevisstris*, *Asplenium Trichomanes*, *Lathyrus Bijugatus*, *Selene Spaldingii*, *Cyperus Erythrorhizos*, *Amblyodon Dealbatus*, *Castilleja Cervina*, *Cypripedium Parviflorum*, and *Eriophorum Gracile*. The last documented observation dates of these species was between the late 1890's to early 1900's. Therefore, because the proposed facility would be operating in a previously disturbed industrial area and these species have not been identified at the proposed site (nor have their been any known documented observations in the general area for about a century), it is unlikely that any of these species would be affected by the proposed operations.

Fish species of concern include the Westslope Cutthroat Trout and Bull Trout. These two fish species of concern are found within the confluences of the Flathead River, which is some 1,000 meters away. The nearest tributary is more than 100 meters away from the proposed operational site location. Therefore, because of the distance from the waterways, conditions in Permit #3270-01 and the minimal emissions from the proposed operations, only minor effects on these species of concern would result.

A Great Blue Heron Bird Rookery is within the defined area and is located approximately 1 mile to the south of the proposed operational site. DEQ Biologist, Chris Yde, examined a previous project in this area and determined that the project would have no significant impact to this species of concern within the proposed area. Because this proposed facility would be operating in the same area as other similar industrial equipment, in a location which would be farther away from the species that the study site and the proposed location was also being utilized by other facilities of similar size and function during the time of the study. Therefore, only minor impacts upon this species is expected to occur. Further, only minor impacts could be expected from the crushing/screening operation on the great blue heron bird rookery because the facility would only be operated on a seasonal and intermittent basis, and would be required to utilize appropriate pollution control equipment and operational procedures.

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

Due to the size of the facility, the crushing/screening operation would only require small quantities of water, air, and energy for proper operation. Small quantities of water would be required to be used for dust suppression and would control emissions being generated at the site. Energy requirements would also be small because the facility is a crushing/screening operation that would be powered by two small industrial diesel generators. The facility would use a limited amount of diesel fuel (a non-renewable resource), would have limited production, and would have seasonal and intermittent use. In addition, impacts to air resources would be minor because the source is a small industrial emissions source, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed. Therefore, any impacts to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

The Department previously 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. Search results concluded that there are no previously recorded historical or archaeological resources of concern within the area proposed for initial operations. According to past correspondence from the Montana State Historic Preservation Office, there would be a low likelihood of adverse disturbance to any known archaeological or historic site given previous industrial disturbance to an area. Therefore, no impacts upon historical or archaeological sites would be expected as a result of operating the proposed crushing/screening plant because the site is an existing gravel pit that has previously been disturbed and because no previously recorded historical/archaeological sites have been identified at the location.

J. Cumulative and Secondary Impacts

The crushing/screening operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of PM, PM<sub>10</sub>, NO<sub>x</sub>, VOC, CO, and SO<sub>x</sub>. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the site is an existing open-cut pit, currently designated and used for operations of similar size and function. Additionally, this facility, in combination with other emissions from Sandon’s equipment operations would not be permitted to exceed 250 tons per year of non-fugitive emissions. Further, additional site restrictions are outlined in Addendum 1 and would be adjusted, as necessary, to protect ambient air quality in or within 10 kilometers of the PM<sub>10</sub> nonattainment areas identified in the addendum. No other sources are expected to operate as a result of permitting this equipment. Overall, any impacts to the physical and biological aspects of the human environment would be minor.

9. *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 Department has prepared the following comments.

A. Social Structures and Mores

The crushing/screening operation would cause no disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions, would be operating at an area designated and used for aggregate mining, would be separated from the general population, and would only have temporary and intermittent operations. Further, the facility would be a minor source of air pollution and would be required to operate according to the conditions that would be placed in Permit #3270-01 and Addendum 1. Therefore, no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of the area would not be impacted by the proposed crushing/screening operation because the proposed site is currently designated and used for the crushing/screening of aggregate, the proposed site is separated from the general population, and the facility would be a portable source with seasonal and intermittent operations. Therefore, the predominant use of the surrounding area would not change as a result of this project and the cultural uniqueness and diversity of the area would not be affected.

C. Local and State Tax Base and Tax Revenue

The crushing/screening operation would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source and would operate seasonally and intermittently. The facility would require the use of only existing 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 impact to local tax base and revenue is expected to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The crushing/screening operations would have only a minor impact on local industrial production since the facility would be a minor source of aggregate production and air emissions. There would be minor effects on agricultural land because the facility would be operating in an open-cut pit, adjacent to an area that could be used for animal grazing and agricultural production. Therefore, because minimal deposition of air pollutants would occur on the surrounding land (as described in Section 8.F), minor effects on the surrounding vegetation (i.e. agricultural production) would occur. In addition, the facility operations would be small and temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation (as described in Section 8.D of this EA).

E. Human Health

Permit #3270-01 and Addendum 1 would incorporate conditions to ensure that the crushing/screening 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. For example, as described in Section 8.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other process limits. Also, the facility would be operating on a temporary and intermittent basis and pollutants would disperse (see Section 8.F). Maintaining compliance with these limitations will assist the facility with complying with ambient air quality standards. Therefore, only minor impacts would be expected on human health from the proposed crushing/screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

The crushing/screening plant would be operated adjacent to an existing airport, railway, and Highway 2. The facility would operate within the confines of an existing open-cut pit. Therefore, no impacts upon access to recreational and wilderness activities would result. However, minor effects on the quality of recreational and wilderness activities would occur, such as from noise. Any such effects, however, would be minor because the facility would operate within the confines of an existing open-cut pit, would operate near multiple transportation routes, would operate in an industrial area where little recreational opportunity exists, and would operate on a seasonal and intermittent basis. Therefore, any changes in the quality of recreational and wilderness activities, created by noise generated by operating the equipment at the site, would be minor and intermittent.

G. Quantity and Distribution of Employment

The facility operation would have only minor effects on the quantity and distribution of employment in the area because no new employees would be needed for such operations. Additionally, the crushing/screening facility would be a small, portable source, and would be used on a seasonal and intermittent basis. The existing employee(s) would continue to work and live in the area.

H. Distribution of Population

The portable crushing/screening operation is small and would only require existing employees to operate. No individuals would be expected to permanently relocate to the area as a result of operating the crushing/screening facility. Therefore, the crushing/screening operation would not disrupt the normal population distribution.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the crushing/screening operation is in progress. In addition, government services would be required for acquiring the appropriate permits from government agencies and determining compliance with this permit. Demands for government services would be minor.

J. Industrial and Commercial Activity

The crushing/screening operation would represent only a minor increase in the industrial activity in the area because the source would be relatively small and would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

Sandon would be allowed, by Permit #3270-01 and Addendum 1, to operate in areas designated by EPA as attainment or unclassified and in certain areas designated as nonattainment. The permitted production limits and opacity limits would be protective of air quality while the facility is operating at these permitted locations. Because the facility would be a small and portable source and would have intermittent and seasonal operations, any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The crushing/screening operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because the source is a portable, temporary source. 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 the operation of the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Sandon, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, minor and temporary cumulative effects would result on the local economy.

*Recommendation:* An EIS is not 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 are minor; therefore, an EIS is not required.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Department of Environmental Quality - Permitting and Compliance Division (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 State Historic Preservation Office (Montana Historical Society).

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