

AIR QUALITY PERMIT

Issued To: Shumaker Trucking and Excavating Contractors, Inc.
P.O. 1279
Great Falls, Montana 59403

Permit #2605-01
Application Complete: 12/03/03
Preliminary Determination Issued:
1/07/04
Department Decision Issued: 01/23/04
Permit Final: 02/10/04
AFS #777-2605

An air quality permit, with conditions, is hereby granted to Shumaker Trucking and Excavating Contractors, Inc. (Shumaker), pursuant to Sections 75-2-204 and 211, 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. Plant Location

Shumaker operates a portable crushing/screening facility that will initially locate in the SW ¼ of Section 30, Township 21 North, Range 4 East, in Cascade County, Montana. However, Permit #2605-01 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 PM₁₀ nonattainment areas. An addendum to this air quality permit will be required if Shumaker intends to locate in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On December 3, 2003, Shumaker submitted a complete permit application for the addition of a portable 2001 Cedar Rapids Jaw crusher (maximum capacity up to 800 tons per hour (TPH)) with an attached diesel engine (150 horsepower (HP)) and associated equipment to Permit #2605-00. In addition, Shumaker requested the permit be written de minimis friendly. Permit #2605-00 will also be updated to reflect the current permit languages and rule references used by the Department.

Section II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Sources (NSPS) affected crushers may 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. Shumaker shall not cause or authorize to be discharged into the atmosphere from any other NSPS affected equipment used in conjunction with this facility, such as screens or conveyor transfers, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
3. Shumaker shall not cause or authorize to be discharged into the atmosphere from

any other associated equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).

4. Water and water spray bars shall be available on site at all times and used, as necessary, to maintain compliance with the opacity limitation in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
5. Shumaker 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. Shumaker 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 17.8.752).
7. Shumaker shall not operate more than two crushers at any given time and the combined maximum rated design capacity of the crushers shall not exceed 1,050 tons per hour (TPH) (ARM 17.8.749).
8. Total combined crusher production from the facility shall be limited to 9,198,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. Shumaker shall not operate more than one screen at any given time and the maximum rated design capacity of the screen shall not exceed 250 TPH (ARM 17.8.749).
10. Screen production from the facility shall be limited to 2,190,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. Shumaker shall not operate more than two diesel generators/engines at any given time and the maximum combined rated design capacity shall not exceed 462 Kilowatts (kW) (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Shumaker 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 time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, 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 Part 60.675, must be performed on any NSPS affected equipment to demonstrate compliance with the emissions limitations contained in Sections II.A.1 and II.A.2 (ARM 17.8.340, 40 CFR Part 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 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. Shumaker 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 Shumaker as a permanent business record for at least 5 years following the date of the measurement, shall be available at the plant site for inspection by the Department, and shall be submitted to the Department upon request (ARM 17.8.749).
3. Shumaker shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the 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 units, as 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. Shumaker shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, 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 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. Shumaker shall document, by month, the total crushing production for the facility. By the 25th day of each month, Shumaker shall total the 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 emission inventory (ARM 17.8.749).
6. Shumaker shall document, by month, the total screening production for the facility. By the 25th day of each month, Shumaker shall total the 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 emission inventory (ARM 17.8.749).

- A. Inspection – Shumaker 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 Shumaker fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Shumaker of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions, and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement 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 the conclusion of the hearing and issuance of a final decision by the Board. The Department's decision on the application is not final unless 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. 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.
- H. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Shumaker may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- 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. Shumaker shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas having a Department approved permitting program.

PERMIT ANALYSIS
Shumaker Trucking and Excavating Contractors, Inc.
Permit Number 2605-01

I. Introduction/Process Description

A. Permitted Equipment

On December 3, 2003, Shumaker Trucking and Excavating Contractors, Inc. (Shumaker) submitted a request to add a 2001 Cedar Rapids (42"x17") Jaw crusher (up to 800 tons per hour (TPH)) with an attached diesel motor (up to 150 horsepower (HP)) and associated equipment and to generalize the permit to allow for additional operational flexibility. Shumaker will also operate a portable 1980 Hombolt Wedag (42 ½ "x15 ¾") Horizontal Impact crusher (up to 250 TPH), a 1986 EL Russ (5'x18') 2-deck Splitting screen (up to 250 TPH), a diesel generator (up to 350 kilowatts (kW)), and associated equipment. The proposed original location for the facility is the SW ¼ of Section 30, Township 21 North, Range 4 East, in Cascade County, Montana. Permit #2605-01 will apply to the source 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 (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

B. Process Description

Shumaker proposes to use this crushing/screening plant to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are conveyed and crushed by the jaw and impact crushers. A conveyor transfers materials to the screen and the oversized materials are recycled back to the impact crusher. The desired product is then conveyed to stockpile.

C. Permit History

On September 19, 1989, Shumaker was issued a permit to operate a portable 1980 Hombolt Wedag (42 ½ "x15 ¾") Horizontal Impact crusher (up to 250 TPH), a 1986 EL Russ (5'x18') 2-deck Splitting screen (up to 250 TPH), a diesel generator (up to 350 kW), and associated equipment. Shumaker's permit was assigned Permit #2605-01.

D. Current Permit Action

On December 3, 2003, Shumaker submitted a complete permit application for the addition of a portable 2001 Cedar Rapids Jaw crusher (maximum capacity up to 800 TPH) with an attached diesel engine (150 HP) and associated equipment to Permit #2605-00. In addition, Shumaker requested the permit be written de minimis friendly. Permit #2605-00 will also be updated to reflect the current permit languages and rule references used by the Department. Permit **#2605-01** will replace Permit #2605-00.

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 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. 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 is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Shumaker shall comply with all 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 which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner 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 PM₁₀

Shumaker 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, Shumaker 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 Standards 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, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.

In order for a 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 and, second, the equipment in question must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Shumaker, at the time of issuance of Permit #2605-01, the 2001 Cedar Rapids (42"x17") Jaw crusher (up to 800 TPH), 1980 Hombolt Wedag (42 ½ "x15 ¾") Horizontal Impact crusher (up to 250 TPH), and 1986 EL Russ (5'x18') 2-deck Splitting screen (up to 250 TPH) are all currently subject to NSPS requirements because of their size and date of manufacture (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 Shumaker 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. Shumaker submitted the appropriate permit application fee as required 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. This 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, modify, or use any asphalt plant, crusher, or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Shumaker has the PTE more than 15 tons per year of total particulate matter (PM), PM₁₀, and oxides of nitrogen (NO_x); 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. Shumaker 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. Shumaker submitted an affidavit of publication of public notice for the December 1, 2003, issue of the *Great Falls Tribune*, a newspaper of general circulation in the Town of Great Falls in Cascade County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires

that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section 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 Shumaker of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond 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 Modifications-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source 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 pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ 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 #2605-01 for the Shumaker facility, 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 of any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not subject to any current NESHAP standards.
 - e. This facility is currently subject to NSPS standards (40 CFR 60, Subpart A General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants).
 - 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 Shumaker would be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Shumaker will be required to obtain a Title V Operating Permit.

III. Emission Inventory

Source	Tons/Year					
	PM	PM	NO _x	VOC	CO	SO _x
1990 Hombolt Wedag Impact crusher (up to 250 TPH)	2.74	1.31				
2001 Cedar Rapids Jaw crusher (up to 800 TPH)	6.79	3.26				
1986 EL Russ 2-deck Splitting screen (up to 250 TPH)	17.25	8.21				
Material Transfer	35.44	17.11				
Pile Forming	22.81	10.86				
Bulk Loading	11.41	5.43				
Diesel Generator (up to 350 kW)	1.44	1.44	49.34	1.32	11.31	4.15
Diesel Generator (up to 150 kW)	0.46	0.46	15.77	0.42	3.61	1.33
Haul Roads	2.74	1.23				
Total	101.08	49.31	65.11	1.74	14.92	5.48

- A complete emission inventory for Permit #2605-01 is on file with the Department.

IV. BACT Determination

A BACT determination is required for any new or modified source. Shumaker shall install on the new or modified source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be used.

Shumaker shall not cause 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. Shumaker 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. Shumaker 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. Shumaker must 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. Shumaker 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 water and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing/screening operations.

Due to the amount of PM, PM₁₀, NO_x, CO, VOC, and SO_x emissions produced by the diesel generators/engines, add-on controls would be cost prohibitive as the source is small (a minor industrial source of emissions) and would only have seasonal and intermittent operations. Thus, the Department determined that no additional control constitutes BACT for these generators/engines. The control options selected have controls and control costs similar to other recently permitted similar sources and these controls are capable of achieving the established emissions limits.

V. Existing Air Quality

Permit #2605-01 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 PM₁₀ nonattainment areas. The initial site location has been classified as being in attainment with federal ambient air quality standards. Included in the permit 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 air quality will be minor and short-lived.

VI. Air Quality Impacts

Permit #2605-01 will cover the operations of this portable crushing/screening plant while operating at the initial site location, the SW ¼ of Section 30, Township 21 North, Range 4 East, in Cascade County, Montana. Based on the information provided, and the conditions established in Permit #2605-01 the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standard for operations in these areas.

VII. 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.

VIII. 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
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(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Shumaker Trucking and Excavating Contractors, Inc.
P.O. 1279
Great Falls, Montana 59403

Permit Number: #2605-01

Preliminary Determination Issued: January 7, 2004

Department Decision Issued: January 23, 2004

Permit Final: February 10, 2004

1. *Legal Description of Site:* Shumaker submitted an application for the addition of equipment to the facility's portable crushing/screening plant in the SW ¼ of Section 30, Township 21 North, Range 4 East, in Cascade County, Montana. Permit #2605-01 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM₁₀ nonattainment areas. An addendum to this air quality permit will be required if Shumaker intends to locate in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*
2. *Description of Project:* The permit application proposes the construction and operation of a portable crushing/screening plant that would consist of a portable 2001 Cedar Rapids (42"x17") Jaw crusher (up to 800 tons per hour (TPH)) with an attached diesel motor (up to 150 horsepower (HP)), 1980 Hombolt Wedag (42 ½" x 15 ¾") Horizontal Impact crusher (up to 250 tons per hour (TPH)), a 1986 EL Russ (5' x 18') 2-deck Splitting screen (up to 250 TPH), a diesel generator (up to 350 kilowatts (kW)), and associated equipment. For a typical operational setup, unprocessed materials are conveyed and crushed by the jaw and impact crushers. Materials are then conveyed to the screen, screened, with the oversized materials being recycled back to the impact crusher and the undersized materials conveyed to 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. The issuance of Permit #2605-01 would allow Shumaker 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 crushing/screening operation 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 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 Shumaker 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 #2605-01.
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, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition because the emissions from the facility would be minor.

Impacts on aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor as 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 only a minor amount of air emissions would be generated, only minor deposition (see Section 8.F of this EA) would occur. The proposed project would be for the recycle of asphalt and would require less water than typical crushing/screening operations. Therefore, at most, only minor and temporary effects to aquatic life and habitat would be expected from the proposed crushing/screening operation.

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, since only relatively small amounts of water would be needed. 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 and deposition of air pollutants 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 this proposed site location (due to the construction and use of the crushing/screening facility) because the facility would be relatively small in size, would be required to use only small amounts of water for pollution control, would only have minor deposition on the surrounding soils, and would only have seasonal and intermittent operations. Further, because the topography and vegetative cover at the site would allow for good pollutant dispersion (as described in Section 8.F of this permit), the associated impacts from pollutant deposition upon the surrounding soils would be minimal. Therefore, any effects upon geology and soil quality, stability, and moisture at any proposed operational site would be minor.

D. Vegetation Cover, Quantity, and Quality

Because the facility would operate at an existing open-cut pit (at a site where good pollutant dispersion would occur and vegetation has been previously removed/disturbed) and because the facility would be a relatively minor source of emissions, impacts from the emissions leaving the site and depositing on vegetation (surrounding agricultural land) would be minor. As described in Section 8.F of this EA, the amount of air emissions from this facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal (as described in Section 8.B) and the associated soil disturbance is minimal (as described in Section 8.C) corresponding vegetative impacts would be minor.

E. Aesthetics

The crushing/screening operation would be visible and would create additional noise while operating in this area. However, Permit #2605-01 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 crushing/screening operations would be minor because Permit #2605-01 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Additionally, the facility's production capacity would be limited and the facility would be considered a minor source of air pollution by industrial standards. Because the facility would be a minor source of air pollution, and Permit #2605-01 would limit total emissions from the crushing/screening operation and include other permit limitations (such as limiting additional equipment operated by Shumaker at the site to 250 tons/year or less, excluding fugitive emissions), the facilities effects upon air quality would be minor.

This facility would have temporary and intermittent use, thereby further reducing potential air quality impacts from the facility emissions. Further, pollutant deposition from the facility would be minimal because the pollutants would be widely dispersed and would have only minor effects upon the surrounding soils, vegetation, water resources, human population, and terrestrial and aquatic life as a result of the deposition and accumulation of these pollutants. Additionally, the small and intermittent amounts of deposition generated from the crushing/screening operation would only have minor impacts upon the surrounding environment and would comply with ambient air quality standards. Further, because the site has little vegetative cover and would locate in an area where good ventilation would occur as a result of the open terrain (due to pollutant dispersion from the corresponding ventilation conditions of wind speed and wind direction), air quality impacts would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to unique endangered, fragile, or limited environmental resources in the initial proposed area of operation, contacted the Montana Natural Heritage Program (MNHP). MNHP search results concluded there are two 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.

The two species of concern are the plant species *Funaria Americana* and the *Entosthodon Rubiginosus*. While these species have been identified within the defined area, they have been generalized from many miles of potential habitat. The proposed crushing/screening plant operations would initially locate at a previously disturbed site that is separated from the general population and the facility would operate in an area that would effectively ventilate and dissipate air emissions. As described from past meteorological information and modeling done for another source in the same general area (Permit #3238-00), wind direction would primarily carry the pollutants to the north and east and good ventilation would exist in the area. Also, because the crushing/screening operations would be small and temporary in nature and emissions would be controlled (as outlined in Permit #2605-01), applicable ambient air quality impacts would not be exceeded. Thus, deposition generated from the crushing/screening operations would be minor and associated impacts upon the surrounding environment would also be minor. Further, these plant species were recorded as last being observed over a century ago and the proposed operations would be conducted at a previously disturbed area, thus, no impacts upon these species from air quality are expected to occur.

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, as the facility would be powered by two small industrial diesel generators/engines that would use minor amounts of fuel. The facility 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 (see Section 8.F of this EA). Therefore, any impacts to water, air, and energy resources 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. Search results concluded that there is one previously recorded historical or archaeological resource of concern within the area proposed for initial

operations. The cultural resource of concern has been identified as the Rainbow to Ryan road. While this resource may be used by Shumaker, it is not anticipated that existing usage would be greatly impacted by the proposed facility operations and, in fact, the existing facility could be used to improve and preserve the roadway.

Further, 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 equipment because the operational site has already been disturbed and because no previously recorded historical/archaeological resources have been identified at the equipment operational site 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, PM₁₀, NO_x, VOC, CO, and SO_x. Noise would also be generated from equipment operations. Emissions and noise would cause minimal disturbance to the surrounding environment because the equipment is a small industrial source of production and emissions that would initially be used for the recycle of asphalt. Also, the facility would initially operate in a previously disturbed area. Additionally, this facility may operate in combination with other facilities owned and operated by Shumaker. However, total emissions from Shumaker's operations at the operational site would not be permitted to exceed 250 tons per year of non-fugitive emissions. Overall, any cumulative or secondary 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 following comments have been prepared by the Department.

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 previously used for the mining of aggregate and would be separated from the general population, would only have temporary and intermittent operations, and would be used for the recycle of asphalt. Additionally, the equipment would be expected to operate according to the conditions placed in Permit #2605-01. Thus, no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed crushing/screening operation because this site is currently used for the crushing/screening of aggregate and is separated from the general population. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. Therefore, the predominant use of the surrounding areas 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 (minor source) and would have seasonal and intermittent operations. The facility would require the use of only a few 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 impacts to local tax base and revenue would be minor because the source would also 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 relatively small industrial source of aggregate production and air emissions. Also, the facility would locate in a previously disturbed site, adjacent to an area that could be used for animal grazing and agricultural production. However, the facility operations would be small and temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts on surrounding vegetation (as described in Section 8.D of this EA). Pollution control would be utilized for equipment operations and production limits would be established to minimize emissions.

E. Human Health

Permit #2605-01 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. 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. Furthermore, dispersion of pollutants would result in minimal impacts upon the surrounding area of operations and pollutants would be disperse (see Section 8.F of this EA). 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 operate at a previously disturbed industrial site and on private land. Therefore, no additional impacts upon the access to and quality of recreational and wilderness activities would be created by operating the equipment. Additionally, noise from the facility would be minor because the facility is a small crushing/screening operation that would be used for the recycle of asphalt. Therefore, the amount of noise leaving the operational site would be minimal and the facility would be located adjacent to Rainbow road, so any changes to the existing noise levels would be minimal. Also, the facility would operate on a seasonal and intermittent basis and would be a relatively minor industrial emissions source. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment at this site would be expected to be minor and intermittent.

G. Quantity and Distribution of Employment

The crushing/screening operation is a small, portable source, with seasonal and intermittent operations and would have only minor effects upon the quantity and distribution of employment in this area of operation since Shumaker would be expected to utilize a few new employees for the project. Therefore, only minor effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

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

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in a given area while the crushing/screening operation is in progress. In addition, government services would be required for acquiring the appropriate permit from government agencies and determining compliance with the 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 this or any other area of operation because the source would be a relatively small industrial source that 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

Shumaker would be allowed, by permit, to operate in areas designated by EPA as attainment or unclassified. Permit #2605-01 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. 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 areas of operation because the source is a portable and 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 operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Shumaker, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, only minor and temporary cumulative effects would result to 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), Montana State Historic Preservation Office (Montana Historical Society).

EA prepared by: Ron Lowney

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