

AIR QUALITY PERMIT

Issued To: United Materials of Great Falls, Inc.
P. O. Box 1690
Great Falls, MT 59403

Permit: #3244-00
Application Complete: 02/21/03
Preliminary Determination Issued: 03/11/03
Department's Decision Issued: 03/27/03
Permit Final: 04/12/03
AFS: #777-3244

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

SECTION I. Permitted Facilities

A. Permitted Equipment

United operates a portable crushing/screening plant at various locations throughout Montana. The permitted equipment covered by Permit #3244-00 includes a crusher, a screen, a diesel generator, and associated equipment. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Plant Location

United operates the portable crushing/screening plant at various locations throughout Montana. Permit #3244-00 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program. *A Missoula County air quality permit will be required for locations within Missoula County.* An addendum will be required for locations in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀) in nonattainment areas. The initial location is the SW¹/₄ of Section 16, Township 20 North, Range 4 East, in Cascade County, Montana.

SECTION II. Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Sources (NSPS) affected crushers shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart 000).
2. All visible emissions from any other NSPS affected equipment, such as screens and conveyor transfer points, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart 000).
3. United shall not cause or authorize to be discharged into the atmosphere from any non-NSPS affected crusher, screen, or any other associated equipment 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 spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
5. United 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. United 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 and ARM 17.8.752).
7. United shall not operate more than two crushers at any given time and the combined maximum rated design capacity shall not exceed 1000 tons per hour (ARM 17.8.749).
8. Total crushing production shall be limited to 3,372,600 tons during any rolling 12-month period (ARM 17.8.749).
9. United shall not operate more than two screens at any given time and the combined maximum rated design capacity shall not exceed 1000 tons/hour (ARM 17.8.749).
10. Total screening production shall be limited to 3,372,600 tons during any rolling 12-month time period (ARM 17.8.749).
11. United shall not operate more than one diesel generator at any given time. The design capacity of the generator shall not exceed 350 kilowatts (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by United, 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. United shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart OOO, 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 start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on any 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, General Provisions and Subpart OOO).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).
2. United shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. United 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(l) (ARM 17.8.745).

4. United shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by United as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request.
5. United shall document, by month, the total crushing production. By the 25th day of each month, United shall total the combined crushing production of the facility during the previous 12 months to verify compliance with the limitation in Section II.A.7. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
6. United shall document, by month, the total screening production. By the 25th day of each month, United shall total the combined screening production of the facility during the previous 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).

SECTION III. General Conditions

- A. Inspection – United 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 United fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving United 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 United may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. United 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
United Materials of Great Falls, Inc.
Permit #3244-00

I. Introduction/Process Description

A. Permitted Equipment

United Materials of Great Falls, Inc. (United) owns and operates a portable crushing/screening facility. Equipment used at the facility includes, but is not limited to, the following:

1. (1) primary crusher (up to 1000 ton/hr)
2. (1) primary screen (up to 1000 ton/hr)
3. (1) diesel generator (up to 350 kW maximum capacity)
4. Associated equipment (including conveyors and transfer points)

B. Source Description

For a typical operational set-up, quarried stone is passed through the facility's primary screening and crushing equipment for proper size classification. Associated equipment and activities include material conveying, storage, sized product loadout, and diesel-fired electrical generation.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, 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).

United shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, United shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions.
6. 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). In order for a crushing/screening plant to be subject to NSPS requirements, two specific criteria must be met. First, the crushing/screening plant must meet the definition of an affected facility and, second, the equipment in question

must have been constructed, reconstructed, or modified after August 31, 1983. United may be an NSPS affected facility under 40 CFR 60 and may be subject to the requirements of Subpart OOO depending on the date of manufacture of the equipment and maximum capacity of the crusher(s) used for the operation.

- D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. United 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 facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the potential to emit greater than 15 tons per year of any pollutant. United has the potential to emit more than 15 tons per year of particulate matter, particulate matter less than 10 microns (PM₁₀), and nitrogen oxides (NO_x), therefore, a 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 – Exclusions for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.
 5. ARM 17.8.748 New or Modified Emitting Units -- Permit Application Requirements. This rule requires that a permit application be submitted prior to the installation, alteration, or use of a source. United 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. United submitted an affidavit of publication of public

notice for the February 18, 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, which is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of the permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving United 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 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 because of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit can 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 potential to emit is less than 250 tons per year of any pollutant (excluding fugitive emissions).

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. Potential to Emit (PTE) > 100 tons/year of any pollutant
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule, or
 - c. PTE > 70 tons/year of 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 #3244-00 for United, the following conclusions were made.
 - a. The facility's PTE is less than 100 tons/year for any pollutant.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is potentially subject to a current NSPS.
 - 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 United will be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or altered source. United 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. A BACT analysis was conducted for particulate matter, PM₁₀, NO_x, VOC, CO, and SO_x emissions resulting from the operation of United's crushing/screening facility.

All visible emissions from any NSPS affected crusher shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes. All visible emissions from any other NSPS affected equipment, such as screens and conveyor transfer points, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes. In addition, all visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations. Further, United 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. Reasonable precautions will consist of treating all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with Montana air quality Permit #3244-00. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity limitations and reasonable precautions requirements constitutes BACT in this case.

Due to the relatively small amount of particulate matter, PM₁₀, NO_x, VOC, CO, and SO_x emissions resulting from the operation of the portable generator and the cost of controlling the pollutants, add-on pollution control equipment would be cost prohibitive. Therefore, the Department determined that no additional controls will constitute BACT for the portable generator in this case. The control options selected are comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

Source	Tons/Year					
	TSP	PM ₁₀	NO _x	VOC	CO	SO _x
Primary Crusher (up to 1000 tons/hr)	5.31	2.55	0.00	0.00	0.00	0.00
Primary Screen (up to 1000 tons/hr)	33.46	15.93	0.00	0.00	0.00	0.00
Bulk Loading	8.92	4.52	0.00	0.00	0.00	0.00
Material Transfer	31.75	15.30	0.00	0.00	0.00	0.00
Pile Forming	17.84	8.50	0.00	0.00	0.00	0.00
Haul Roads	2.74	1.23	0.00	0.00	0.00	0.00
Diesel Generator (up to 350 kW)	4.52	1.53	63.73	5.08	13.73	4.21
Total	99.24	49.73	63.73	5.08	13.73	4.21

- A complete emission inventory for Permit #3244-00 is on file with the Department.

V. Air Quality Impacts

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 minimal and short-lived.

VI. Taking or Damaging Implication Analysis

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

VII. Environmental Assessment

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

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air and Waste Management Bureau
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FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: United Materials of Great Falls, Inc.
P.O. Box 1690
Great Falls, MT 59403

Permit Number: #3244-00

Preliminary Determination Issued: 03/11/03
Department Decision Issued: 03/27/03
Permit Final: 04/12/03

1. *Legal Description of Site:* The crushing/screening plant would operate at various locations within Montana. The original location would be the SW¹/₄ of Section 16, Township 20 North, Range 4 East, in Cascade County, Montana.
2. *Description of Project:* The current permit action would allow the operation of a portable crushing/screening plant at various locations throughout Montana. The process description is discussed in Section I.B. of the permit analysis of Permit #3244-00.
3. *Objectives of Project:* The objective of the project would be to generate business and revenue for the company and provide road construction materials. Permit #3244-00 would allow United to operate the permitted equipment at various locations within Montana.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because United demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in Permit #3244-00.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

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

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			Yes
B.	Water Quality, Quantity, and Distribution			X			Yes
C.	Geology and Soil Quality, Stability, and Moisture			X			Yes
D.	Vegetation Cover, Quantity, and Quality			X			Yes
E.	Aesthetics			X			Yes
F.	Air Quality			X			Yes
G.	Unique Endangered, Fragile, or Limited Environmental 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 and aquatic life would use the same areas that the crushing/screening facility uses. While deposition of pollutants would occur, as explained in Section 7.F. of this EA, due to the relatively small size and temporary nature of the operation, dispersion characteristics of the source and surrounding area, and conditions placed in Permit #3244-00, any impacts from the deposition of pollutants would be minor. In addition, crushing/screening operations typically locate within a previously disturbed open-cut pit that is normally used for such activities. Therefore, only minor additional physical effects on terrestrial and aquatic life and habitats would be expected from site disturbance.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the areas where the crushing/screening facility would operate, there would be little, if any impacts on water quality, quantity, and distribution because of the relatively small size and temporary nature of the operation. While deposition from air emissions would occur, any impacts from deposition would be minor. As described in Section 7.F. of this EA, due to the relatively small amount of emissions and conditions placed in Permit #3244-00, the impacts from the air emissions from the crushing/screening facility would be minor.

Further, water would be required for dust suppression. However, because of the relatively small size and temporary nature of the operation, only minor amounts of water would be required for adequate dust suppression; therefore, any impacts on water quality, quantity, or distribution would be minor. Any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations.

C. Geology and Soil Quality, Stability, and Moisture

There would be minor impacts to the geology and soil quality, stability, and moisture in the areas that the crushing/screening plant would operate due to facility construction (bringing the various pieces of equipment on site and setting the equipment up for operation), increased vehicle traffic (employees coming to and from work, haul trucks leaving and returning to the site, and mobile equipment used to move material and product around the site), the use of water to control dust, and deposition of pollutants resulting from the crushing/screening operations. As explained in Section 7.F. of this EA, the relatively small size and temporary nature of the operation, dispersion characteristics of the source and surrounding area dispersion, and conditions placed in Permit #3244-00 would minimize the impacts from deposition.

D. Vegetation Cover, Quantity, and Quality

There would be minor impacts on the vegetative cover, quantity, and quality because small amounts of vegetation would likely be disturbed from the crushing/screening facility. Crushing/screening operations typically locate within a previously disturbed open-cut pit that is normally used for such activities. Therefore, any physical effects on vegetation cover, quantity, and quality would be minor. While deposition of pollutants would occur on the surrounding vegetation, as explained in Section 7.F. of this EA, the Department determined that due to the relatively small size and temporary nature of the operation, dispersion characteristics of the source and surrounding area dispersion, and conditions placed in Permit #3244-00, any impacts from deposition would be minor. Also, because the water usage would be minimal (as described in Section 7.B. of this EA) and the associated soil disturbance would be minor (as described in Section 7.C. of this EA) corresponding vegetative impacts would also be minor.

E. Aesthetics

The crushing/screening facility would be visible and would create additional noise in the areas where it would operate. Permit #3244-00 would include conditions to control emissions, including visible emissions, from the crushing/screening facility. Crushing/screening operations typically locate within a previously disturbed open-cut pit that is normally used for such activities. Because the crushing/screening plant is relatively small, temporary, and seasonal, and the fact that the areas where the facility would operate are typically used for such activities, any aesthetic impact to any given area of operation would be minor and would sometimes reflect impacts that are common to a given area.

F. Air Quality

Air quality impacts from the crushing/screening facility would be minor because the crushing/screening facility would be a relatively small and temporary source. Deposition of pollutants would occur as a result of operating the crushing/screening facility. However, the Department determined that any air quality impacts from deposition would be minor due to dispersion characteristics of the source and surrounding area dispersion, the atmosphere (wind speed, direction, temperature, etc.), the source (stack height, stack temperature, etc.), and conditions placed in Permit #3244-00. Permit #3244-00 would include conditions limiting the opacity from the plant. In addition, Permit #3244-00 would include conditions requiring that reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, and the general work area. Further, Permit #3244-00 would also limit total emissions from the crushing/screening facility, and any additional United equipment operated at the same site, to 250 tons per year or less excluding fugitive emissions.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program, National Resource Information System (NRIS), in an effort to identify any species of special concern associated with the proposed initial location. NRIS identified eight species of special concern in the general area of the initial proposed area of operation. The species identified were the Entosthodon Rubiginosus, Funaria Americana, Psilocarphus Brevissimus Var Brevis (Dwarf Woolly-Heads), Elatine Californica (California Waterwort), Centunculus Minimus (Chaffweed), Bacopa Rotundifolia (Roundleaf Water-Hyssop), Carex Sychnocephala (Many-Headed Sedge), and Najas Guadalupensis (Guadalupe Water-Nymph).

The identified species are located in the Lower Missouri River and/or Sand Coulee areas. The closest identification is approximately one and a quarter miles away from the proposed site. The Department believes that based on the distance of the species from the facility, the temporary operation of the crushing/screening facility and the existing land use of the site as an open cut pit, there may be a minor impact to the species of special concern.

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

The crushing/screening facility would require only small quantities of water and air for proper operation due to the relatively small size of the facility and conditions placed in Permit #3244-00. Small amounts of water would be used for dust control on the surrounding roadways and the associated job site. In addition, as described in Section 7.F. of this EA, air emissions generated from the facility would have minor impacts on air quality in the immediate and surrounding area. However, the operation of the crushing/screening facility is seasonal. Seasonal operations would result in fewer demands on the environmental resource of water and air. Further, the facility utilizes a diesel generator to provide power to the facility; therefore, there would be no impact on energy demand in any given area of operation. While the demand on the non-renewable resource of diesel fuel would increase, any impacts would be minor due to the seasonal nature of the operations and the relatively small size of the generator. Overall, the demands on the environmental resource of water, air, and energy would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites that may be present in or near the proposed initial site, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). SHPO indicated that there have been no previously recorded historic or archaeological sites within the area of the initial proposed area of operation.

If portable crushing/screening facilities move to new locations, they typically move to a previously disturbed industrial location such as an open cut pit. As noted above, SHPO has indicated in the past that there is low likelihood of disturbance to any known archaeological or historic sites given previous industrial disturbance in those areas. Therefore, it is unlikely that the crushing/screening facility would have an effect on any known historic or archaeological site at any future location.

J. Cumulative and Secondary Impacts

The crushing/screening facility would cause minor effects on the physical and biological aspects of the human environment because the facility would generate emissions of particulate matter, PM₁₀, NO_x, CO, SO₂ and VOC. Conditions that would be placed in Permit #3244-00 would ensure that no air quality impacts, other than minor air quality impacts, would occur. Noise impacts would be minor due the seasonal and portable nature of the operation and the relatively small size of the facility. Impacts from noise would be seasonal and temporary because the crushing/screening facility is permitted as a portable source that would typically move to other locations. Also, noise impacts are minimized by operations within a pit. Limitations would be established in Permit #3244-00 to minimize air pollution.

There is potential for other operations to locate at the same sites that the crushing/screening facility would use. However, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the proposed site. The crushing/screening facility would be limited by Permit #3244-00 to total emissions of 250 tons per year or less from non-fugitive emissions sources at any given site. Overall, any impacts to the physical and biological aspects of the human environment would be minor.

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

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

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

A. Social Structures and Mores

The crushing/screening facility would cause no disruption to native or traditional lifestyles or communities (Social Structures and Mores) at any future site because of the relatively small size and temporary nature of the facility. In addition, it would be unlikely that the crushing/screening facility would have an impact on Social Structures and Mores of any future area of operation because the facility would likely be operated in a previously disturbed industrial area typically used for such operations.

B. Cultural Uniqueness and Diversity

The crushing/screening facility would not impact the cultural uniqueness and diversity of the proposed area because of the relatively small size and temporary nature of the crushing/screening facility. In addition, it would be unlikely that the crushing/screening facility would have an impact on the cultural uniqueness and diversity of any future area of operation because the facility would likely be operated in a previously disturbed industrial area typically used for such operations. The predominant use of the surrounding area would remain unchanged by this permit action.

C. Local and State Tax Base and Tax Revenue

The proposed crushing/screening facility would have minor effects on local and state tax base and tax revenue. The facility would be a temporary and seasonal source. A limited number of additional employees would be added as a result of issuing Permit #3244-00. Any revenue created by the crushing/screening facility would be wide spread and would be for relatively short time periods each year.

D. Agricultural or Industrial Production

The crushing/screening facility would usually locate in a previously disturbed industrial area typically used for such operations. Therefore, the Department does not expect that the crushing/screening facility would affect or displace any agricultural land or production. Further, the crushing/screening facility would be small by industrial standards and would have only a minor impact on any local industrial production.

E. Human Health

Permit #3244-00 would incorporate conditions to ensure that the crushing/screening facility would be operated in compliance with all applicable rules and regulations. These rules and regulations are designed to be protective of human health. As described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor due to the dispersion characteristics of air emissions and conditions placed in Permit #3244-00. Pollution controls and opacity limitations on the crushing/screening facility, associated equipment, and the surrounding operational area would minimize the air emissions from this facility. Therefore, any impacts to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The crushing/screening facility would not affect any access to recreational and wilderness activities because the facility would typically be operated in an existing industrial pit. However, minor effects on the quality of recreational activities might be created by noise from the operating equipment. Any impacts from the site would be temporary, due to the portable and seasonal nature of the crushing/screening facility.

G. Quantity and Distribution of Employment

Given the relatively small size and temporary nature of the operation, the impacts on the quantity and distribution of employment in any given area may be minor. A limited number of employees would be expected to be hired as a result of issuing Permit #3244-00.

H. Distribution of Population

Given the relatively small size and temporary nature of the operation, the facility would not disrupt the normal population distribution of any given area. The operation of the crushing/screening facility would create limited new employment opportunities with United, so any change in population distribution would be negligible.

I. Demands of Government Services

Government services would be required for acquiring the appropriate permits and ensuring compliance with the permits that would be issued. However, the government services required for this permit would be minor. There could be an increase in vehicle traffic resulting from the operation of the crushing/screening facility. However, any demands on government services to regulate the traffic would be minor due to the relatively small size and temporary nature of the

operation. In addition, it would be unlikely that the crushing/screening facility would have an impact on demands of government services of any future area of operation because the facility would likely be operated in a previously disturbed industrial area typically used for such operations. Therefore, such operations would have only minor impacts to the demands on government services of any future site. Overall, the demand of government services would be minor.

J. Industrial and Commercial Activity

The crushing/screening facility would represent only a minor increase in the industrial activity in any given area due to the relatively small size of the operation. No additional industrial or commercial activity would result solely from the operation of the crushing/screening facility, but some of the product may be supplied to industrial and commercial sources. Any impacts to industrial and commercial activities of any given area would be negligible due to the relatively small size and seasonal nature of the operation.

K. Locally Adopted Environmental Plans and Goals

Permit #3244-00 would allow the crushing/screening facility to operate at various locations around the state. Permit #3244-00 would include conditions to protect the ambient air quality standards from the impacts of the facility. Therefore, there would not be any impacts expected on locally adopted environmental plans and goals.

L. Cumulative and Secondary Impacts

Overall, impacts to the social and economic aspects of the human environment from this project would be minor because new businesses would not be drawn to the area of the initial proposed area of operation. Because a relatively small number of new employees may be hired due to the operation of the crushing/screening facility, there may be minor economic impacts from new employees. In addition, any social and economic impacts would be minor and short-lived because of the relatively small size, and the seasonal and temporary nature of the operation.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: Because this crushing/screening facility is a relatively small portable source and must use pollution controls and reasonable precautions to control emissions, the resulting impacts would be minor.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society - State Historic Preservation Office (SHPO), Montana Natural Heritage Program - National Resource Information System (NRIS), and the Department of Environmental Quality - Industrial and Energy Minerals Bureau.

Individuals or groups contributing to this EA: Department of Environmental Quality Permitting and Compliance Division (Air and Waste Management Bureau and Industrial and Energy Minerals Bureau), SHPO, and NRIS.

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