

AIR QUALITY PERMIT

Issued To: Pioneer Concrete & Fuel, Inc. Permit: #3873-00
P.O. Box 3207 Application Complete: 08/01/06
Butte, MT 59702 Preliminary Determination Issued: 08/24/06
Department's Decision Issued: 09/12/06
Permit Final: 09/28/06
AFS #: 777-3873

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

SECTION I: Permitted Facilities

A. Permitted Equipment

Pioneer operates a portable non-metallic mineral processing plant incorporating two crushers, two screens, a wash plant screen, a diesel-fired generator, and associated non-metallic mineral processing equipment. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Plant Location

The Pioneer "home-pit" where the permitted portable facility will initially operate is located approximately 1 mile north of Crackerville, Montana, in the northwest $\frac{1}{4}$ of the northwest $\frac{1}{4}$ of Section 25, Township 4 North, Range 10 West, in Deer Lodge County, Montana. However, Permit #3873-00 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Pioneer will be required to obtain an addendum to Permit #3873-00 to operate in locations in or within 10 km of certain PM₁₀ nonattainment areas.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher shall not exhibit an opacity of 15% or greater averaged over 6-consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).
2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6-consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR, Subpart OOO).
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6-consecutive minutes (ARM 17.8.304 and ARM 17.8.752).

4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
5. Pioneer 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. Pioneer 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. Pioneer shall be limited to two crushers with a combined maximum material throughput capacity of 290 TPH (ARM 17.8.749).
8. Crushing production from the two crushers is limited to 2,540,400 tons during any rolling 12-month time period (ARM 17.8.749).
9. Pioneer shall be limited to two screens with a combined maximum material throughput capacity of 290 TPH (ARM 17.8.749).
10. Screening production from the two screens is limited to 2,540,400 tons during any rolling 12-month time period (ARM 17.8.749).
11. Pioneer shall be limited to one wash plant with a maximum material throughput capacity of 145 TPH (ARM 17.8.749).
12. Wash plant production shall be limited to 1,270,200 tons during any rolling 12-month time period (ARM 17.8.749).
13. Pioneer shall be limited to one diesel-fired generator with a maximum rated design capacity of 275 kilowatts (kW) or less (ARM 17.8.749).
14. If the permitted equipment is used in conjunction with any other equipment owned or operated by Pioneer, 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).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures manual (ARM 17.8.106).

3. The Department may require 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. Pioneer 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. Pioneer 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 startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
4. Pioneer 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 Pioneer as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
5. Pioneer shall document, by month, the crushing production from the two crushers. By the 25th day of each month, Pioneer shall calculate the crushing production from the two crushers for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Pioneer shall document, by month, the screening production from the two screens. By the 25th day of each month, Pioneer shall calculate the screening production from the two screens for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. Pioneer shall document, by month, the production from the wash plant. By the 25th day of each month, Pioneer shall calculate the production from the wash plant for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.12. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

Within 15 days of actual start-up of the equipment covered under Permit #3873-00, Pioneer shall submit written notification to the Department of the initial start-up date of the equipment (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – Pioneer 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 Pioneer fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Pioneer of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Pioneer 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. Pioneer shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program.

Permit Analysis
Pioneer Concrete & Fuel, Inc.
Permit #3873-00

I. Introduction/Process Description

A. Permitted Equipment

Pioneer Concrete & Fuel, Inc. (Pioneer) owns and operates a portable non-metallic mineral processing plant incorporating two crushers with maximum material throughput capacities of 145 tons per hour (TPH) each, two screens with maximum material throughput capacities of 145 TPH each, a wash plant with a maximum material throughput capacity of 145 TPH, and associated material handling equipment. The crushing/screening plant is powered by a diesel-fired generator with a maximum rated design capacity of 275 kilowatts (kW). The facility is originally located in the northwest ¼ of the northwest ¼ of Section 25, Township 4 North, Range 10 West, in Deer Lodge County, Montana. The facility is allowed to move to various locations throughout Montana, except those areas with a Department of Environmental Quality (Department) – approved permitting program. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Pioneer will be required to obtain an addendum to Permit #3873-00 to operate at locations in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas

B. Source Description

Typical operations begin by loading the sand and gravel material to be processed into the 5 foot (ft) X 14 ft screen. Smaller material is conveyed to a stockpile and larger material is conveyed to the jaw crusher. Once crushed by the jaw crusher, the material is conveyed to the 6 ft X 16 ft screen. The smaller material is conveyed to another stockpile and larger material is conveyed to the cone crusher. From the cone crusher, material is conveyed to the wash plant (screen). From the wash plant, oversized material is conveyed back to the cone crusher and smaller material is conveyed to the appropriate stockpile. The finished product, now stockpiled, is used in various construction activities.

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 location of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Pioneer 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

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Pioneer shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
 5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
 6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
 7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). Pioneer has the permitted ability to own and/or operate various affected equipment, as defined in 40 CFR, Part 60, Subpart OOO. If Pioneer operations meet or exceed a production capacity of 150 tons per hour and the affected equipment was constructed, reconstructed, or modified after August 31, 1983, Pioneer would be subject to the applicable requirements contained in 40 CFR 60, Subpart OOO.
- 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. Pioneer submitted the appropriate permit application fee for the current permit action.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.
- An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Pioneer has a PTE greater than 15 tons per year of particulate matter, 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, alteration, or use of a source. Pioneer 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. Pioneer submitted an affidavit of publication of public notice for the July 29, 2006, issue of the *Montana Standard*, a newspaper of general circulation in the city of Butte in Silver Bow 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 Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Pioneer 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. pThe owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions)

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant;

- b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of 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 #3873-00 for Pioneer, 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 an NSPS under 40 CFR 60, Subpart OOO.
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source or a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Pioneer will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Pioneer may be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or altered source. Pioneer 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. Area Source Fugitive PM/PM₁₀ Emissions and Crushing/Screening PM/PM₁₀ Emissions

Two types of emissions controls are readily available and used for dust suppression of fugitive emissions at the site, fugitive emissions for the surrounding area of operations, and for equipment emissions from the crushing/screening operation. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used for dust suppression on the area surrounding the crushing/screening operation and for emissions from the crushing/screening operation. However, because water is more readily available, is more cost effective, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. However, Pioneer may use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area where it would assist in reducing emissions of particulate matter.

Pioneer shall not cause or authorize to be discharged into the atmosphere from any crusher, screen, or associated equipment, not subject to NSPS, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. Further, Pioneer shall not cause or authorize to be discharged into the atmosphere from any NSPS affected crusher any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes and shall not cause or authorize to be discharged into the atmosphere from any other associated NSPS affected equipment, such as screens and material conveyors, any visible emissions that exhibit an opacity of 15% or greater averaged over 6 consecutive minutes. Pioneer must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. Pioneer is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. Pioneer may also use chemical dust suppression to maintain compliance with emissions limitations in Section I.A of Permit #3873-00. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing/screening operation.

B. Diesel Generator

Because of the limited amount of emissions produced by the diesel generator and the lack of readily available and cost effective add-on controls, add-on controls would be cost prohibitive for the proposed project. Therefore, the Department determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel generator in this case.

The control options required for the proposed crushing/screening facility and for the diesel generators/engines that would be used to power the facility are similar to other recently permitted similar sources.

IV. Emission Inventory

Source	tons/year					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
2 Crushers (290 TPH Combined Capacity)	1.52	0.69				
2 Screens (290 TPH Combined Capacity)	1.40	2.58				
Wash Plant (Screen 145 TPH Capacity)	6.00	2.86				
Material Transfer	1.78	0.58				
Pile Forming	10.16	4.76				
Bulk Loading	0.27	0.09				
Diesel Generators (275 kW Capacity)	3.49	1.11	49.15	3.92	10.59	3.25
Haul Roads	12.68	3.60				
Total	37.30	14.16	49.15	3.92	10.59	3.25

A complete emission inventory for Permit #3873-00 is on file with the Department.

V. Air Quality Impacts

Based on the relatively small amount of emissions resulting from the Pioneer operation and the limits and conditions that would be included in Permit #3873-00, the Department believes that the allowable/permitted emissions from this source would not cause or contribute to an exceedance of any ambient air quality standard while operating in any area classified as attainment or unclassified for the ambient air quality standards.

VI. Ambient Air Impact Analysis

The Department determined, based on the relatively small amount of emissions resulting from the Pioneer operation and the limits and conditions that would be included in Permit #3873-00, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, 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, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Pioneer Concrete & Fuel, Inc.
P.O. Box 3207
Butte, MT 59702

Air Quality Permit number: 3873-00

Preliminary Determination Issued: August 24, 2006

Department Decision Issued: September 12, 2006

Permit Final: September 28, 2006

1. Legal Description of Site: Permit #3873-00 would apply while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas 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.* The Pioneer “home-pit”, where the permitted portable facility would initially operate, is located approximately 1 mile north of Crackerville, Montana, in the northwest ¼ of the northwest ¼ of Section 25, Township 4 North, Range 10 West, in Deer Lodge County, Montana.
2. Description of Project: Pioneer would operate a portable non-metallic mineral processing plant incorporating 2 crushers with maximum material throughput capacities of 145 TPH each, 2 screens with maximum material throughput capacities of 145 TPH each, a wash plant with a maximum material throughput capacity of 145 TPH, and associated material handling equipment. The crushing/screening plant is powered by a diesel-fired generator with a maximum rated design capacity of 275 kW. Typical operations begin by loading the sand and gravel material to be processed into the 5 ft X 14 ft screen. Smaller material is conveyed to a stockpile and larger material is conveyed to the jaw crusher. Once crushed by the jaw crusher, the material is conveyed to the 6 ft X 16 ft screen. The smaller material is conveyed to another stockpile and larger material is conveyed to the cone crusher. From the cone crusher, material is conveyed to the wash plant (screen). From the wash plant, oversized material is conveyed back to the cone crusher and smaller material is conveyed to the appropriate stockpile. The finished product, now stockpiled, is used in various construction activities.
3. Objectives of Project: The proposed plant would create business and revenue for Pioneer and provide for varied construction activity and proposed utility infrastructure requiring sand and gravel materials, state-wide.
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 Pioneer has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.

5. A Listing of Mitigation, Stipulations, and Other Controls: A list of enforceable conditions, including a BACT analysis, would be included in Permit #3873-00.
6. Regulatory Effects on Private Property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

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

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

A. Terrestrial and Aquatic life and Habitats

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 and habitats would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life and habitats 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 used for pollution control. Since only a minor amount of air emissions would be generated, only minor deposition would occur. Therefore, only minor and temporary impacts to aquatic life and habitat would be expected from the proposed crushing/screening operation.

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

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 to control air pollutant emissions and deposition of air pollutant emissions would be minor (as described in Section 7.F of this EA).

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

C. Geology and Soil Quality, Stability and Moisture

The crushing/screening operations would have only minor impacts on soils in any proposed site location (due to the construction and use of the crushing/screening facility) because the facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Therefore, any impacts to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

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

D. Vegetation Cover, Quantity, and Quality

Because the facility would be a minor source of emissions, by industrial standards, and would typically operate in areas previously designated and used for aggregate crushing and screening, impacts from the emissions from the crushing/screening facility would be minor and typical. As described in Section 7.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 7.B, and the associated soil disturbance is minimal, as described in Section 7.C, corresponding vegetative impacts would be minor.

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

E. Aesthetics

The crushing/screening operation would be visible and would create additional noise while in operation. However, Permit #3873-00 would include conditions to control emissions, including visible emissions, from the plant. Also, because the crushing/screening operation is portable, would operate on an intermittent and seasonal basis, and would typically locate within a previously permitted open-cut pit, any visual and noise impacts would be minor and short-lived.

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

F. Air Quality

The air quality impacts from the crushing/screening operations would be minor because Permit #3873-00 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, Permit #3873-00 would limit total emissions from the crushing/screening operation and any additional equipment owned and operated by Pioneer to 250 tons/year or less at any given operating site, excluding fugitive emissions.

The crushing/screening plant would be used on a temporary and intermittent basis and typically operate within an area designated for such operations, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the crushing/screening operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Overall, any air quality impacts resulting from the proposed crushing/screening operation would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

Emissions from the proposed project may impact unique, endangered, fragile, or limited environmental resources located in a given proposed project area. However, as detailed in Section V of the permit analysis, any emissions and resulting impacts from the project would be minor due to the low concentration of those pollutants emitted.

Permit #3873-00 would cover the proposed crushing/screening operation while located at various locations throughout the state. Most operations would take place within existing and previously disturbed industrial gravel pits thereby resulting in only minor impacts to the industrial area. Further, given the temporary and portable nature of the operations, any impacts would be minor and short-lived. In addition, operational conditions and limitations in Permit #3873-00 would be protective of these resources by limiting overall impacts to the surrounding environment.

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

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

Due to the relatively small size of the facility, the crushing/screening operation would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Small quantities of water would be used for dust suppression and would control particulate emissions generated through equipment operations and vehicle traffic at the site. Energy requirements would be accommodated through the operation of the permitted diesel-fired electric generator and would be minor due to the relatively small amount of diesel fuel required to operate the generator. In addition, the crushing/screening plant would operate on an intermittent and seasonal basis thereby minimizing energy demands. Further, impacts to air resources would be minor because the source would be small by industrial standards, would operate on an intermittent and seasonal basis, and would generate relatively minor amounts of regulated pollutants through normal operations.

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

I. Historical and Archaeological Sites

Typically, the crushing/screening plant would operate within a previously disturbed open-cut pit used for such purposes. According to past correspondence from the Montana Historical Society, State Historic Preservation Office (SHPO), there would be a low likelihood of disturbance to any known archaeological or historical site given any previous industrial disturbance in any given area of operation. Therefore, it is unlikely that the proposed crushing/screening plant would impact any historical or archaeological sites in a given area of operation.

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 of a given proposed area of operation because the facility would generate emissions of regulated air pollutants and noise would be generated from equipment operations. Emissions and noise would cause minor disturbance to a given area because the equipment is relatively small by industrial standards and the facility would be expected to operate in areas designated and typically used for such operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

Overall, any cumulative or secondary impacts to the physical and biological aspects of the human environment of the project area would be minor because the proposed crushing/screening operation would typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

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 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 initially and typically operate in an existing industrial gravel pit used for such purposes, and would operate on a temporary and intermittent basis. Further, the facility would be required to operate according to the limits and conditions that would be included in Permit #3873-00, which would limit the effects to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed crushing/screening operation because the proposed facility would be a portable source, the facility would conduct seasonal and intermittent operations, and the facility would utilize a relatively small number of employees for normal operations. The predominant use of the surrounding area would not change as a result of this crushing/screening operation. Therefore, the cultural uniqueness and diversity of the area would not be impacted.

C. Local and State Tax Base and Tax Revenue

The crushing/screening operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source and would conduct only seasonal and intermittent operations. The facility would require the use of only a few employees. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would be portable and the money generated for taxes would be widespread.

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

D. Agricultural or Industrial Production

The crushing/screening operations would result in only minor impacts to local industrial production since the facility would be a minor source of aggregate production and air emissions. Also, the facility would locate in an area adjacent to land that could be used for animal grazing and agricultural production. However, because minimal deposition of air pollutants would occur on the surrounding land, only minor and temporary impacts to the surrounding vegetation and land would occur thereby minimizing any minor impacts to surrounding agricultural land and practices in the proposed area of operations. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts to local agricultural areas.

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

E. Human Health

Permit #3873-00 would include limits and 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 7.F. of this EA, the air emissions from the proposed facility would be minimized by the use of water spray and other process limits that would be required by Permit #3873-00. Also, the facility would operate on a temporary and intermittent basis and pollutants would be widely dispersed (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed crushing/screening operations.

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

F. Access to and Quality of Recreational and Wilderness Activities

Noise from the facility would be minor because the crushing/screening operation would be small by industrial standards and would operate in areas typically used for such operations (i.e. existing gravel pit). As a result, the amount of noise generated from the crushing/screening operation would be minimal for the area. Also, the facility would operate on a seasonal and intermittent basis. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived.

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

G. Quantity and Distribution of Employment

The crushing/screening operation would require only a few employees to operate and would be conducted on a seasonal and intermittent basis thereby resulting in little, if any, permanent immigration into or emigration out of a given area of operation. Therefore, the proposed project would not impact the quantity and distribution of employment in the proposed area of operation.

H. Distribution of Population

The proposed crushing/screening operation would require only a few employees to operate and would be conducted on a seasonal and intermittent basis thereby resulting in little, if any, permanent immigration into or emigration out of a given area. Therefore, the proposed project would not impact the distribution of population at the initially proposed or any other given operating site.

I. Demands for Government Services

Minor increases would be seen in traffic on existing roadways in the area while the crushing/screening operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, demands for government services would be minor.

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

J. Industrial and Commercial Activity

The crushing/screening operation would represent only a minor increase in the industrial activity in the proposed 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.

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

K. Locally Adopted Environmental Plans and Goals

Permit #3873-00 would allow Pioneer to operate in areas designated by EPA as attainment or unclassified for the National and Montana ambient air quality standards. Permit #3873-00 would include limits and conditions that would protect air quality and keep facility emissions in compliance with any applicable ambient air quality standards. In addition to the air quality protection provided by Permit #3873-00, the facility would be a portable source and would have intermittent and seasonal operations, thus, any impacts from the facility would be minor and short-lived.

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

L. Cumulative and Secondary Impacts

The crushing/screening operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source. No other industrial operations would be expected to result from the permitting and operation of this facility. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Pioneer; however, any cumulative impacts to the social and economic aspects of the human environment would be minor and short-lived. Overall, the proposed crushing/screening operation would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the initially proposed and any future operating site.

Overall, any cumulative or secondary impacts to the economic and social aspects of the human environment of the project area would be minor because the proposed crushing/ screening operation would typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable non-metallic mineral processing plant. Permit #3873-00 would include conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: Dave Aguirre

Date: August 9, 2006