

## AIR QUALITY PERMIT

Issued To: Naeseth's Redi-Mix  
P.O. Box 1078  
Fort Benton, MT 59442

Permit #: 3247-01  
Application Complete: 1/28/08  
Preliminary Determination Issued: 2/29/08  
Department's Decision Issued: 3/18/08  
Permit Final: 4/3/08  
AFS #: 777-3247

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Naeseth's Redi-Mix (Naeseth), 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. Plant Location

Naeseth operates a portable crushing/screening facility, wash plant, and concrete batch plant initially located in Sections 1 and 12, Township 24 North, Range 8 East, in Chouteau County, Montana. However, MAQP #3247-01 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 (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

#### B. Current Permit Action

On November 9, 2007, Naeseth submitted a request to modify MAQP #3247-00 to include a concrete batch plant that was originally constructed in the spring of 1978 at Naeseth's initial location. This batch plant was discovered during a routine compliance inspection conducted by the Department on September 4, 2007. A warning letter was sent to Naeseth on October 11, 2007 requiring a permit or permit modification for construction of the concrete batch plant. Additional information was requested by the Department on November 21, 2007 and January 9, 2008. Naeseth's permit application was deemed complete on January 28, 2008. This permit modification incorporates the existing concrete batch plant. In addition, the permit has been updated to reflect the current permit language and rule references used by the Department.

### Section II: Limitations and Conditions

#### A. Emissions Limitations

1. Naeseth shall install, operate, and maintain a fabric filter dust collector and a rubber boot loadout spout on the concrete batch plant (ARM 17.8.752):
  - a. Naeseth shall install, operate, and maintain a fabric filter dust collector on the concrete batch plant, including each cement silo ventilation opening; and
  - b. Naeseth shall install, operate, and maintain a rubber boot load-out spout on every product load-out opening at the concrete batch plant.

2. Naeseth shall not cause or authorize to be discharged into the atmosphere from the concrete batch plant and general plant operations:
  - a. Any vent emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
  - b. Any fugitive emissions from the facility including, but not limited to, emissions from truck loading and unloading operations or any material handling and transfer operations, which exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304, ARM 17.8.308 and ARM 17.8.752).
3. 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 Code of Federal Regulations (CFR) 60, Subpart OOO).
4. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).
5. 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).
6. 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.2, II.A.3, II.A.4, and II.A.5 (ARM 17.8.749 and ARM 17.8.752).
7. Naeseth 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).
8. Naeseth 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.7 (ARM 17.8.749 and ARM 17.8.752).
9. Naeseth shall not operate more than one concrete batch plant at any given time and the maximum rated design capacity shall not exceed 18 cubic yards per hour (yd<sup>3</sup>/hr) (ARM 17.8.749).
10. Naeseth shall not operate more than one crusher at any given time and the maximum rated design capacity shall not exceed 370 tons per hour (TPH) (ARM 17.8.749).
11. Total crushing production from the crusher shall be limited to 3,241,200 tons during any rolling 12-month time period (ARM 17.8.749).
12. Naeseth shall not operate more than two screens at any given time and the combined maximum rated design capacity shall not exceed 740 TPH (ARM 17.8.749).

13. Total screening production from the two screens shall be limited to 6,482,400 tons during any rolling 12-month time period (ARM 17.8.749).
14. Naeseth shall not operate more than two diesel engine powered generators and one diesel engine at any given time and the combined maximum rated design capacity of the three diesel engines shall not exceed 355 horsepower (hp) (ARM 17.8.749).
15. A warning device must be installed and maintained on each storage silo to avoid overfilling and possible filter damage (ARM 17.8.749).
16. If the permitted equipment is used in conjunction with any other equipment owned or operated by Naeseth, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
17. Naeseth shall comply with all applicable standards and limitations, and the reporting, record keeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
18. Naeseth shall comply with all applicable standards and limitations, and the reporting, record keeping, testing, and notification requirements contained in 40 CFR 60, Subpart IIII (ARM 17.8.340 and 40 CFR 60, Subpart IIII).

B. Emissions Monitoring

1. Naeseth shall inspect each fabric filter dust collector and its vents, which are used for controlling emissions from the cement silo(s) and the batch plant, at least every 6 months of operation, to ensure that each dust collection system is operating at the optimum efficiency (ARM 17.8.749).
2. Naeseth shall maintain on-site records of inspections, repairs, and maintenance. All records compiled in accordance with this permit shall be maintained by Naeseth as a permanent business record for at least 5 years following the date of measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

C. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures, as specified in 40 CFR Part 60.675, must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.3 and II.A.4 (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's Air Resources Management Bureau and 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 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 17.8.749 and ARM 17.8.765).
2. Naeseth 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. Naeseth shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, 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. 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. Naeseth 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 Naeseth as a permanent business record for at least five 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. Naeseth shall document, by month, the total crushing production from the facility. By the 25<sup>th</sup> day of each month, Naeseth shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.11. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Naeseth shall document, by month, the screening production from the facility. By the 25<sup>th</sup> day of each month, Naeseth shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.13. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – Naeseth 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 Naeseth fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Naeseth of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department’s decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing 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 Naeseth may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within three 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. Naeseth 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  
Naeseth's Redi-Mix  
Permit #3247-01

I. Introduction/Process Description

Naeseth's Redi-Mix (Naeseth) owns and operates a crushing and screening facility, a wash plant, and a truck mix concrete batch plant. The original facility location is in Sections 1 and 12, Township 24 North, Range 8 East, in Chouteau County, Montana.

A. Permitted Equipment

The crushing/screening operation consists of one portable crusher (up to 370 tons per hour (TPH)), one diesel engine (up to 80 horsepower (hp)), one screen (up to 370 TPH), two diesel-engine powered generators (up to 200 horsepower (hp) and 75 hp, respectively), one hopper, three conveyors, and associated equipment. The wash plant consists of one screen (up to 370 TPH), two conveyors, and associated equipment. The wash plant is also powered by the two diesel generators. The concrete batch plant has a maximum production rate of 18 cubic yards per hour (yd<sup>3</sup>/hr) and includes the batch plant along with a cement silo, two conveyors, a weigh hopper, and associated equipment.

B. Source Description

Naeseth uses this crushing/screening plant and wash plant to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor to a screen. Materials are separated, with the larger materials conveyed to a crusher and on to stockpile and the smaller materials conveyed to the wash plant. From the wash plant screen, materials are conveyed to stockpile for future use.

For typical operation of the concrete batch plant, aggregate is stockpiled for use at the batch plant. The cement silo transfers cement into the batch plant along with the aggregate (sand and gravel) and water. The combined mixture is loaded into a truck where all materials are mixed together to form concrete. The concrete is transported and used at various construction operations.

D. Permit History

On March 26, 2003, Naeseth submitted a complete permit application to operate a portable crushing/screening facility and an associated wash plant. Montana Air Quality **Permit** (MAQP) #3247-00 was issued final on June 3, 2003.

E. Current Permit Action

On November 9, 2007, Naeseth submitted a request to modify MAQP #3247-00 to include a concrete batch plant that was originally constructed in the spring of 1978 at Naeseth's permitted initial location. This batch plant was discovered during a routine compliance inspection conducted by the Department of Environmental Quality (Department) on September 4, 2007. A warning letter was sent to Naeseth on October 11, 2007 requiring a permit or permit modification for construction of the concrete batch plant. Additional information was requested by the Department on November 21, 2007 and January 9, 2008. Naeseth's permit application was deemed complete on January 28, 2008. This permit modification incorporates the existing concrete batch plant. In addition, the permit has been updated to reflect the current permit language and rule references used by the Department. **MAQP #3247-01** replaces MAQP #3247-00.

F. Additional Information

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

II. Applicable Rules and Regulations

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

Naeseth 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 four 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 in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner 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 PM<sub>10</sub>

Naeseth 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, Naeseth 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 Processes. 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 rule.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60.

40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, indicates that NSPS requirements apply to portable crushing/screening facilities with capacities greater than 150 tons per hour and that were constructed after August 31, 1983. Based on the information submitted by Naeseth, the crushing/screening equipment may be subject to NSPS requirements.



40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2005, and is not a fire pump engine. The existing 200 hp, 75 hp, and 80 hp diesel engines/generators are CI ICE manufactured before April 1, 2005, and are not fire pump engines. Therefore, NSPS requirements do not apply to these particular engines. However, since this permit is written in a de minimis friendly manner, should the existing diesel engines/generators be replaced with an engine manufactured after April 1, 2005, that is not a fire pump engine, NSPS requirements would apply to that engine/generator.

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. Naeseth 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. Naeseth has a PTE greater than 15 tons per year of total particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO); 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. Naeseth 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. Naeseth submitted an affidavit of publication of public notice for the December 5, 2007, issue of *The River Press*, a newspaper of general circulation in the Town of Fort Benton, in Chouteau County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of 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 Naeseth 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 one year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for 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 one year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year 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 a lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in

ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3247-01 for Naeseth, 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 of any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility may be subject to current NSPS standards (40 CFR 60, Subpart A, General Provisions, Subpart OOO, Non-Metallic Mineral Processing Plants, and Subpart IIII, Stationary CI ICE).
- e. This facility is not subject to any current National Emission Standards for Hazardous Air Pollutants (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 Naeseth 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, Naeseth will be required to obtain a Title V Operating Permit.

### III. BACT Determination

A BACT determination is required for each new or altered source. Naeseth shall install on the new or altered source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be used. The Department reviewed previous BACT determinations for other recently permitted similar sources prior to making the following BACT determinations.

#### Concrete Batch Plant

All visible emissions from the plant, including systems for handling, storing, and weighing aggregate; systems for loading, transferring, and storing cement, are limited to 20% opacity. Naeseth shall control particulate emissions from the plant using a fabric filter dust collection system for batch plant operations. Because these emission control systems constitute highly effective methods for the control of particulate matter emissions from the proposed operation, the Department determined that operating and maintaining a fabric filter dust collection system on the batch plant operations to achieve compliance with the corresponding emission limitations contained in the permit constitutes BACT in this case.

The control options selected contain control equipment and control costs similar to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

#### IV. Emission Inventory

Emitting Unit	Total PTE (tons/year)					
	PM	PM10	NOx	VOC	CO	SOx
Crusher (up to 370 TPH)	1.94	0.88				
Screen (up to 370 TPH)	3.57	1.20				
Bulk Loading	0.16	0.16				
Material Transfer	1.13	0.37				
Pile Forming	5.23	2.47				
Haul Roads	12.68	3.61				
Wash Plant Screen (up to 370 TPH)	3.57	1.20				
Wash Plant Bulk Loading	0.16	0.16				
Wash Plant Material Transfer	0.45	0.15				
Wash Plant Pile Forming	10.45	4.94				
Diesel Generator (200 hp)	1.93	1.93	27.16	2.20	5.85	1.80
Diesel Generator (75 hp)	0.72	0.72	10.18	0.82	2.19	0.67
Diesel Engine (80 hp)	0.77	0.77	10.86	0.88	2.34	0.72
Aggregate Delivery to Ground Storage Bins	0.49	0.23				
Sand Delivery to Ground Storage Bin	0.25	0.12				
Aggregate Transfer to Conveyor	0.49	0.23				
Sand Transfer to Conveyor	0.25	0.12				
Aggregate Transfer to elevated storage	0.49	0.23				
Sand Transfer to elevated storage	0.25	0.12				
Cement Delivery to Silo	0.15	0.05				
Weigh Hopper Loading	0.62	0.30				
Truck Mix Loading of Cement/Aggregate & Sand	1.26	0.36				
<b>Total:</b>	<b>47.03</b>	<b>20.33</b>	<b>48.20</b>	<b>3.90</b>	<b>10.39</b>	<b>3.19</b>

Note: This emissions inventory does not match the inventory summarized in MAQP #3247-00. This discrepancy is due to a change in emission factors published in AP-42. The emissions inventory presented here is based on the most up to date emissions factors.

A complete emission inventory for MAQP #3247-01 is on file with the Department.

#### V. Existing Air Quality

MAQP #3247-01 is issued for the operation of a portable crushing/screening plant and concrete batch plant to be originally located in Sections 1 and 12, Township 24 North, Range 8 East, in Chouteau County, Montana. This facility would be allowed to operate at this proposed site and any other areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS).

#### VI. Air Quality Impacts

MAQP #3247-01 will cover the facility while operating at any location within Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas. In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minor and short-lived.

#### 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.

Analysis Prepared By: Moriah Peck, P.E.

Date: February 25, 2008

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

*Issued For:* Naeseth's Redi-Mix  
Box 1078  
Fort Benton, MT 59442

*Permit Number:* #3247-01

*Preliminary Determination Issued:* February 29, 2008

*Department Decision Issued:* March 18, 2008

*Permit Final:* April 3, 2008

1. *Legal Description of Site:* Naeseth's Redi-Mix (Naeseth) would operate a portable concrete batch plant initially located in Sections 1 and 12, Township 24 North, Range 8 East, in Chouteau County, Montana. Montana Air Quality Permit (MAQP) #3247-01 would apply while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. A *Missoula County air quality permit would be required for locations within Missoula County, Montana.* An addendum to this air quality permit would be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.
2. *Description of Project:* For a typical operation, aggregate is stockpiled for use at the batch plant. The cement silo transfers cement into the batch plant along with the aggregate (sand and gravel) and water. The combined mixture is loaded into a truck where all materials are mixed together to form concrete. The concrete is transported and used at various construction operations.
3. *Objectives of Project:* The objective of the project would be to produce business and revenue for the company by the sale and use of concrete. The issuance of MAQP #3247-01 would allow Naeseth to operate the permitted equipment at various locations throughout 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 Naeseth 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 Best Available Control Technology (BACT) analysis, would be included in Permit #3247-01.
6. *Regulatory Effects on Private Property Rights:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined 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

There is a possibility that terrestrials would use the same area as the concrete batch plant. Impacts on terrestrial and aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor because the plant operation would be considered a minor source of emissions, and would have intermittent and seasonal operations. Furthermore, the air emissions would have only minor effects on the terrestrial and aquatic life because facility emissions would be well dispersed in the area of operation (See Section 7.F of this EA). Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from this operation.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emission in the area where the concrete batch plant 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. Water would be used for making the concrete and for dust suppression on the surrounding roadways and areas of operation. However, water use would only cause a minor disturbance to these areas, since only relatively small amounts of water would be needed. Overall, the concrete batch plant operations would result in only minor impacts to water quality, quantity, and distribution.



C. Geology and Soil Quality, Stability, and Moisture

There would be minor impacts to the geology and soil quality, stability, and moisture near the plant's operational area due to increased vehicle traffic, the use of water to control dust, and the deposition of pollutants from concrete batch operations. Because the source is relatively small by industrial standards, portable, and equipment operations would take place within a previously disturbed gravel pit, any associated impacts to soil stability, and composition would be minor. Minor increases in traffic would occur, but would be on an intermittent and temporary basis and would be primarily on existing roadways – resulting in minimal impacts to the soil quality, stability, and moisture in the area. Further, only relatively small amounts of water would need to be applied to control dust on the surrounding roadways, for the facilities pollution control operations, and for dust control within the gravel pit. Thus, the soil moisture content, soil stability, and soil quality would only be minimally affected by the proposed project.

D. Vegetation Cover, Quantity, and Quality

Because the facility would operate in an existing open-cut pit, would operate in an area where good pollutant dispersion would occur, would be a minor source of emissions, and would be temporary in nature, impacts to vegetation cover, quality, and quantity would be minor.

As described in Section 7.F of this EA, the impacts from the 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 associated water resource and soil disturbance would be minimal, as a result of equipment construction and operation (as described in Sections 7.B and 7.C), corresponding vegetative impacts would also be minor.

E. Aesthetics

The concrete batch plant's operation would be visible and would create additional noise in the area. According to the applicant, the nearest house is located approximately  $\frac{3}{4}$  mile away. MAQP #3247-01 would include conditions to control emissions, including visible emissions, from the plant. Since the concrete batch plant operation would be portable and would operate on an intermittent and seasonal basis, any visual aesthetic impacts would be minor and short-lived.

F. Air Quality

Air quality impacts from the proposed project would be minor because this facility would operate on an intermittent and temporary basis. In addition, MAQP #3247-01 would include conditions limiting the facility's opacity and operation. Water would be required on-site at all times to control emissions. In addition, a fabric filter dust collector and a rubber boot load-out spout would be required to control emissions from the concrete batch plant. The permit would also limit total emissions from the plant and additional Naeseth equipment operated at the same site to 250 tons/year or less, excluding fugitive emissions.

Pollutant deposition from the facility would be minimal because pollutants emitted would be widely dispersed (from factors such as wind speed and wind direction) and would have minimal deposition on the surrounding area (due to site topography of the area and minimal vegetative cover in the area). Therefore, air quality impacts from operating the concrete batch in this area would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the proposed area of construction and operation, the Department contacted the Montana Natural Heritage Program, Natural Resources Information System (NRIS). NRIS search results concluded that there are five known species of concern and one inferred species of concern within the search locale. The search locale is defined by the section, township, and range of the proposed site, with an additional 1-mile buffer. The known species of concern include the Sturgeon Chub, Sauger, Blue Sucker, Greater Short-horned Lizard, and Townsend's Big-eared Bat. These species are listed as sensitive. The inferred species of concern includes the Bald Eagle. While these resources may be found in specific habitats through the defined area, the NRIS search did not indicate that these species of concern would locate directly on or relatively near the proposed site. Therefore, it is unlikely that these species of concern would realize any impacts from the proposed project beyond minor air emissions impact.

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

Due to the size of the facility, the concrete batch plant would only require small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression and for the concrete batching operations. Impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations, and because air pollutants generated by the facility would disperse. Energy would be provided by electrical power. Therefore, any impacts to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. Search results concluded that there is one previously recorded site within the designated search locale. This site is a historic transmission line. In addition to the site there have been a few previously conducted cultural resource inventories done in the area. SHPO felt that there would be a low likelihood that cultural properties would be impacted and therefore, felt that a cultural resource inventory would be unwarranted at this time.

J. Cumulative and Secondary Impacts

The concrete batch plant would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generally have only seasonal, intermittent, and temporary use, and because the facility would be considered a minor source of air pollutants by industrial standards. The concrete batch plant would generate emissions of particulate matter (PM) and PM<sub>10</sub>. Noise would also be generated from operation of the concrete batch plant, but would cause minimal disturbance because the site is in an existing pit and in a relatively remote location. Addition, this facility may operate in combination with other facilities owned and operated by Naeseth. However, total emissions from Naeseth's operations at the site would not be permitted to exceed 250 tons per year, excluding fugitives. Overall, any cumulative and secondary 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 concrete batch plant operation would cause no disruption to the social structures and mores in the area because the source would be relatively small and temporary in nature. Additionally, the equipment would initially be located in a relatively remote location ( $\frac{3}{4}$  of a mile from the nearest home) in a gravel pit that has been previously developed along Highway 87, and would be a minor source of air pollution. Thus, no native or traditional lifestyles or communities would be affected by the proposed project operations and the predominant use of the surrounding area would not change as a result of this project.

**B. Cultural Uniqueness and Diversity**

The concrete batch plant operation would have no impact on the cultural uniqueness and diversity of this area of operation because the use of the site and surrounding area would not change. The facility is a relatively small and temporary source that would be operating at a relatively remote location. The nearest residence would be approximately  $\frac{3}{4}$  mile away and the nearest town would be Fort Benton, Montana, which is approximately one mile southwest of the proposed location.

Additionally, the proposed operations would be removed from the general population, would be relatively small and portable, and would be locating in an area previously used for such purposes. Therefore, impacts upon the cultural uniqueness and diversity of the area would not occur.

C. Local and State Tax Base and Tax Revenue

The concrete batch plant operation would have little, if any, affect on the local and state tax base and tax revenue because the facility would be a temporary source and would be small by industrial standards. The facility would only need three employees to operate, so only minor impacts to the local and state tax base and revenue would be expected from the use of the employees and from the facility production. Furthermore, any impacts to local tax base and tax revenue would be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The proposed concrete batch plant would locate on privately owned land, which has previously been used for the mining of gravel. The surrounding land has been used for grazing activities and growing wheat. Because of the surrounding land use, past land use of the site, and seasonal, temporary, and intermittent use of the facility, only minor effects to agricultural land could be expected. Any such effects would be addressed by Naeseth, as Naeseth owns the land surrounding the site. The land is also adjacent to an existing highway (US Highway 87). Further, the concrete batch plant operation is relatively small by industrial standards and, thus, would have only a minor impact on local industrial production.

E. Human Health

MAQP #3247-01 would incorporate conditions to ensure that the concrete batch plant would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F of this EA, the air emissions from this facility would be minimized by the use of water spray and opacity limitations, as established in MAQP #3247-01. Therefore, since these conditions would be incorporated into the permit and because the facility is relatively small and would locate in an area with good air dispersion, any associated impacts to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The concrete batch plant operation would not affect any access to recreational and wilderness activities because of its immediate proximity to an improved roadway and historic industrial usage of the area. However, minor effects on the quality of recreational activities may be created by noise from the site. Any noise impacts from the site would be minor, intermittent, and temporary, due to the portable nature of the concrete batch plant operation and the operation's proximity to US Highway 87.

G. Quantity and Distribution of Employment

Given the relatively small size and portable nature of the operation, the quantity and distribution of employment in this area would only be minimally affected. Naeseth would use three existing employees for the project. Additionally, because the facility is a small and temporary source, any changes in the quantity and distribution of employment from the use of this relatively small industrial source would be minor and short-lived.

H. Distribution of Population

Given the relatively small size and temporary nature of the concrete batch plant, the surrounding land usage, and the fact that the facility would be utilizing only three existing employees, the normal population distribution in the area would not be affected.

I. Demands of Government Services

Minor increases would be seen on traffic on existing roadways in the area while the concrete batch plant is operating. In addition, government services would be required for acquiring the appropriate permits from government agencies, and to verify compliance with the permits that would be issued. However, any increase of demand for government services would be minor given the temporary and portable nature of the project.

J. Industrial and Commercial Activity

The concrete batch plant would represent only a minor increase in the industrial activity in the area because of the relatively small size, portable, and temporary nature of the facility. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals that would be affected by the proposed project. Therefore, no affects on such plans and goals would be expected.

L. Cumulative and Secondary Impacts

The concrete batch plant operation would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because the source is a portable and temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate area, thus, would have a direct effect on the social environment. Because the source is a relatively small and temporary source, only minor economic impacts to the local economy could be expected from the operation of the facility. Thus, only minor (but temporary) cumulative effects would also result to the economic and social resources of the area.

*Recommendation:* An Environmental Impact Statement (EIS) is not 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 concrete batch plant. MAQP #3247-01 includes conditions and limitations to ensure the facility will 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:* Moriah Peck, P.E.

*Date:* February 25, 2008