

AIR QUALITY PERMIT

Issued To: Nitty Gritty Dirt, LLC
P.O. Box 384
Belgrade, MT 59644

Permit #3897-00
Complete Application Received: 12/08/06
Preliminary Determination Issued: 01/12/07
Department's Decision Issued: 01/30/07
Permit Final: 2/15/07
AFS #777-3897

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

Section I: Permitted Facilities

A. Permitted Equipment:

Nitty Gritty operates a portable concrete batch plant with an associated crusher and screen at various locations throughout Montana. A complete list of equipment is included in the Permit Analysis.

B. Plant Location:

Nitty Gritty operates a portable concrete batch plant with an associated crusher and screen initially located in the NE ¼ of Section 5, Township 2 North, Range 1 East in Broadwater County. Permit #3897-00 applies while operating at any location in Montana, except within 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. An addendum will be required for PM₁₀ nonattainment areas.

Section II: Conditions and Limitations

A. Emission Control Requirements

1. Nitty Gritty shall install, operate, and maintain the baghouse and cartridge filters located on the batch plant and cement silos, and all other emission control equipment, including a rubber boot load-out spout (or equivalent) as specified in all supporting documentation and in Permit #3897-00 (ARM 17.8.752):
 - a) Nitty Gritty shall install, operate, and maintain the baghouse and cartridge filters, associated collection systems and fittings, on every cement and cement supplement silo ventilation opening; and
 - b) Nitty Gritty shall install, operate, and maintain the rubber boot load-out on every product load-out opening at the concrete plant.

2. Nitty Gritty shall not cause or authorize to be discharged into the atmosphere from the plant:
 - a) Any vent emissions that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
 - b) Any fugitive emissions from the source, or from any material transfer operations, including but not limited to, truck loading or unloading, which exhibit an opacity of 20% or greater averaged over six consecutive minutes matter (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 six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
4. All visible emissions from any other NSPS affected equipment, such as screens or conveyors, shall not exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
5. 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.3 and II.A.4 (ARM 17.8.752).
6. Nitty Gritty shall not cause or authorize to be discharged into the atmosphere from any street, road or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over six consecutive minutes and must take reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.752).
7. Nitty Gritty shall treat all unpaved portions of 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.6. (ARM 17.8.752).
8. Nitty Gritty shall not operate more than one crusher at any given time and the maximum rated design capacity of the crusher shall not exceed 600 tons per hour (TPH) (ARM 17.8.749).
9. Crushing production from the facility is limited to 5,256,000 tons during any rolling 12-month time period (ARM 17.8.749).
10. Nitty Gritty shall not operate more than one screen at any given time and the maximum rated design capacity of the screen shall not exceed 600 TPH (ARM 17.8.749).
11. Screening production from the facility is limited to 5,256,000 tons during any rolling 12-month time period (ARM 17.8.749).
12. Nitty Gritty shall not operate more than two diesel generators at any given time and the combined maximum rated design capacity shall not exceed 1,100 kilowatts (kW), and shall not exceed 3,400 hours during any rolling 12-month time period for either generator (ARM 17.8.749 and ARM 17.8.1204).

13. Nitty Gritty may operate a concrete batch plant with a maximum rated design capacity up to 150 cubic yards per hour and total concrete plant production shall not exceed 450,000 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
14. A device to measure the pressure drop (magnehelic gauge, manometer, etc.) must be installed and maintained on the baghouse. Pressure drop must be measured in inches of water (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 Nitty Gritty, 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 calculation used to establish production levels, shall be approved by the Department (ARM 17.8.749).
17. Nitty Gritty shall comply with all applicable standards and limitations, and reporting, and recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR, Subpart OOO).

B. Emissions Monitoring

1. Nitty Gritty shall inspect the baghouse, cartridge filters, associated vents and collection system, which are used for controlling emissions from the cement storage silos and the batch plant, every 6 months of operation, to ensure that each dust collection system is operating at the optimum efficiency. Records of inspections, repairs, and maintenance shall be kept for a minimum of 5 years (ARM 17.8.749).
2. Nitty Gritty shall maintain on-site records of inspections, repairs, and maintenance. All records compiled in accordance with this permit shall be maintained by Nitty Gritty 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 for inspection by the Department (ARM 17.8.748).

C. 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 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.3 and II.A.4 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).
2. Pressure drop across the control device and temperature must be recorded daily and kept on site according to Section II.B.1 (ARM 17.8.749).
3. All compliance source tests shall be conducted in accordance with Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
4. The Department may require further testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. If the 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 where 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 upon request (ARM 17.8.765).
2. Nitty Gritty shall maintain on-site records showing daily hours of operation, daily production rates, and daily pressure drop readings for the last 12 months. The records compiled in accordance with this permit shall be maintained by Nitty Gritty as a permanent business record for at least five years following the date of the measurement, must be available at the plant for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
3. Nitty Gritty shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in Section I.A of the permit analysis.

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

4. Nitty Gritty 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. This notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745 (1)(d) (ARM 17.8.745).
5. Nitty Gritty shall document, by month, the crushing production from the facility. By the 25th day of each month, Nitty Gritty shall calculate the concrete 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.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Nitty Gritty shall document, by month, the screening production from the facility. By the 25th day of each month, Nitty Gritty shall calculate the concrete 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).

7. Nitty Gritty shall document, by month, the concrete production from the facility. By the 25th day of each month, Nitty Gritty shall calculate the concrete 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).
8. Nitty Gritty shall document, by month, the hours of operation of for each diesel generator. By the 25th day of each month, Nitty Gritty shall calculate the hours of operation of each diesel generator 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).
9. Nitty Gritty shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification Requirements

Nitty Gritty shall provide the Department with written notification of the actual start-up date of the new portable plant within 30 days after actual startup (ARM 17.8.749).

Section III: General Conditions

- A. Inspection - Nitty Gritty 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 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 Nitty Gritty fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Nitty Gritty 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 Nitty Gritty 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. Nitty Gritty shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas having a Department approved permitting program.

Permit Analysis
Nitty Gritty Dirt, LLC
Permit #3897-00

I. Introduction/Process Description

A. Permitted Equipment

Nitty Gritty Dirt, LLC. (Nitty Gritty) owns and operates a portable crushing and screening facility and a portable concrete batch plant consisting of the following equipment:

- Crusher (up to 600 tons per hour (TPH))
- Screen (up to 600 TPH)
- Diesel generator #1 (up to 800 kilowatt (kW))
- Diesel generator #2 (up to 300 kW)
- Cement silos with filter cartridges
- Concrete batch plant (maximum capacity up to 150 cubic yards per hour)
- Conveyors, batcher/mixer, hopper, and other associated equipment. Air emissions from the cement batcher are controlled by a high efficiency fabric filter.

B. Source Description

For a typical operation, stockpiled aggregate is dispensed from bins and dumped onto conveyors that transfer aggregate to the crushing and screening facility. Once material is crushed and screened, the material is separated by size and stockpiled for use at the batch plant. The cement silos transfer cement into the batch plant along with the aggregate (sand and gravel). The sand, gravel, cement, and water are then loaded into a central mixer where all materials are mixed together to form concrete. The concrete is then transferred to trucks for transport and used at various construction operations.

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule 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).

Nitty Gritty 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 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

Nitty Gritty 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 six 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 reasonable precaution be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, Nitty Gritty 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 Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is an NSPS-affected facility under 40 CFR Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), because the facility was constructed after June 11, 1973. Therefore, the facility is subject to the requirements of 40 CFR Part 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 Nitty Gritty 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. Nitty Gritty 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. This 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 concrete batch plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Nitty Gritty has a PTE greater than 15 tons per year of PM, particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀), and nitrogen oxides (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 Permit--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. A permit application was submitted 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. Nitty Gritty submitted an affidavit of publication of public notice for the September 21, 2006, issue of *The Townsend Star*, a newspaper of general circulation in Broadwater 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 Nitty Gritty 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 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 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 Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

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

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any 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 #3897-00 for Nitty Gritty, the following conclusions were made:
 - a. The facility's PTE is less than 100 tons/year for any criteria pollutant.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to a current NSPS (40 CFR Part 60, Subpart OOO) standards.
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Nitty Gritty is not required to obtain a Title V operating permit because federally enforceable limitations have been included in Permit #3897-00 to limit the sources PTE below the major source threshold. Based on these facts, the Department has determined that Nitty Gritty 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, Nitty Gritty will be required to obtain a Title V Operating Permit.

- h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.
 - i. In applying for an exemption under this section, the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
 - ii. Any source that obtains a federally enforceable limit on PTE shall

annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

III. BACT Determination

A BACT determination is required for each new or altered source. Nitty Gritty shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized.

A. Area Source Fugitive Emissions and Crushing and Screening 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 facility. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the operation, and for emissions from the 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. Nitty Gritty may, however, use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area.

Nitty Gritty shall not cause or authorize to be discharged into the atmosphere from any NSPS affected crusher, any visible emissions that exhibit an opacity of 15% or greater averaged over six consecutive minutes. Also, Nitty Gritty shall not cause or authorize to be discharged into the atmosphere from any affected screens, conveyor transfers, or other NSPS affected equipment, any visible emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes. Further, Nitty Gritty shall not cause or authorize to be discharged into the atmosphere from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over six consecutive minutes.

Nitty Gritty 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. Nitty Gritty 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. Nitty Gritty may also use chemical dust suppression, in order to maintain compliance with emission limitations in Section II of Permit #3897-00. The Department determined that using water spray bars, water, and chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing and screening operation.

B. Diesel Generator

Due to the limited amount of emissions produced by the diesel generator and the lack of readily available, cost effective add-on controls; add-on controls would be cost prohibitive. Therefore, the Department determined proper operation and maintenance with no add-on controls would constitute BACT for the diesel generator.

C. Concrete Batch Plant

Nitty Gritty proposed to control particulate emissions from the plant with filter cartridges and/or fabric filters on the cement silos and batch plant. All visible emissions from the

plant including systems for crushing, screening, handling, storing, and weighing aggregate; systems for loading, transferring, and storing cement are limited to 20% opacity. The Department determined that operating and maintaining the baghouse, cartridge filters, all venting duct lines, fittings (including dust shroud) and associated blowers to achieve compliance with the corresponding limitations in Section II.A of the permit, and using water and chemical dust suppressant to comply with the reasonable precautions limitation will constitute BACT for the Nitty Gritty plant.

Control options required for the proposed facility and diesel generators are similar to other recently permitted sources, and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

Source*	Tons/year (TPY)					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Crushing and Screening Facility						
Crusher (up to 600 TPH)	3.15	1.42				
Screen (up to 600 TPH)	5.78	1.94				
Material Transfers	1.47	0.48				
Pile forming	42.05	19.71				
Bulk Loading	0.06	0.06				
Haul roads	12.68	3.60				
Diesel Generator #1 (up to 800 kW)	4.01	4.01	56.54	4.5	12.18	3.74
Cement Batch Plant						
Diesel Generator #2 (up to 300 kW)	1.50	1.50	21.20	1.69	4.57	1.40
Aggregate delivery to ground storage	4.20	2.04				
Sand delivery to ground storage	0.99	0.46				
Aggregate transfer to conveyor	4.20	2.04				
Sand transfer to conveyor	0.99	0.46				
Aggregate transfer to elevated storage	4.20	2.04				
Sand transfer to elevated storage	0.99	0.46				
Cement delivery to silo	0.13	0.07				
Weigh hopper loading	5.19	2.50				
Central Mix loading	1.59	0.44				
Total	93.20	43.23	77.74	6.19	16.75	5.14

*The diesel generator(s) are limited to 3,400 hours of operation per 12-month rolling period to keep the facility below the Title V threshold.

Crusher (up to 600 TPH)

Process Rate: 600 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0012 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Calculations: 0.0012 lbs/ton * 600 ton/hr = 0.72 lb/hr
0.72 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.1536 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Calculations: 0.00054 lbs/ton * 600 ton/hr = 0.324 lb/hr
0.324 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.41912 ton/yr

Screens (up to 600 TPH)

Process Rate: 600 ton/hr
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0022 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Calculations: 0.0022 lbs/ton * 600 ton/hr = 1.32 lb/hr
 1.32 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 5.7816 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00074 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Calculations: 0.00074 lbs/ton * 600 ton/hr = 0.44 lb/hr
 0.444 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.94472 ton/yr

Material Transfer

Process Rate: 600 ton/hr
 Number of Transfers: 4 Transfers
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.00014 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Calculations: 0.00014 lbs/ton * 600 ton/hr * 4 Transfers = 0.34 lb/hr
 0.336 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.47168 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.000046 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Calculations: 0.000046 lbs/ton * 600 ton/hr * 4 Transfers = 0.11 lb/hr
 0.1104 lb/hr * 8760 hr/yr * 0.0005 ton/lb = .483552 ton/yr

Pile Forming

Process Rate: 600 ton/hr
 Number of Piles: 5 Piles (3 crushing/screening + 2 at batch plant)
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0032 lbs/ton Controlled (AP-42, Section 13.2.4, 1/95)
 Calculations: 0.0032 lbs/ton * 600 ton/hr * 5 Piles = 9.60 lb/hr
 9.6 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 42.05 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0015 lbs/ton Controlled (AP-42, Section 13.2.4, 1/95)
 Calculations: 0.0015 lbs/ton * 600 ton/hr * 5 Piles = 4.50 lb/hr
 4.5 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 19.71 ton/yr

Bulk Loading

Process Rate: 400 ton/hr
 Number of Loads: 2 Loads
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 1.60E-05 lbs/ton (AP-42, Section 11.19, 8/04)
 Calculations: 0.000016 lbs/ton * 400 ton/hr * 2 Loads = 0.01 lb/hr
 0.0128 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.06 ton/yr

PM₁₀ Emissions:

Emission Factor: 1.60E-05 lbs/ton (AP-42, Section 11.19, 8/04)
 Calculations: 0.000016 lbs/ton * 400 ton/hr * 2 Loads = 0.01 lb/hr
 0.0128 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.06 ton/yr

Haul Roads

Vehicle miles traveled: 5 VMT/day (Estimated)

PM Emissions:

PM Emission Factor (Rated Load Capacity <50 tons): 13.90 lbs/VMT (AP-42, Section 13.2.2, 12/03)

PM = (5VMT/day)(13.90 lb/VMT)(0.5)

PM = 69.50 lbs/day

69.5 lbs/day * 0.0005 tons/lb * 365 day/yr = 12.68 ton/yr

PM₁₀ Emissions:PM₁₀ Emission Factor (Rated Load Capacity <50 tons): 3.95 lbs/VMT (AP-42, Section 13.2.2, 12/03)PM₁₀ = (5VMT/day)(3.95 lb/VMT)(0.5)PM₁₀ = 19.75 lbs/day

69.5 lbs/day * 0.0005 tons/lb * 365 day/yr = 3.60 tons/yr

Diesel Generator(s) (up to 800 kW)

Generator Size = 800 kW

1kW = 1.3410 hp

800kW * 1.341 = 1072.8 hp

7000 Btu = 1 Hp-hr

Hours of Operation: 3400 hr/yr

PM Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 1072.8 hp * 0.0022 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 4.01 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 1072.8 hp * 0.0022 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 4.01 ton/yr

NO_x Emissions:

Emission Factor: 0.0310 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 1072.8 hp * 0.031 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 56.54 ton/yr

VOC Emissions:

Emission Factor: 0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 1072.8 hp * 0.00247 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 4.50 ton/yr

CO Emissions:

Emission Factor: 0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 1072.8 hp * 0.00668 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 12.18 ton/yr

SO_x Emissions:

Emission Factor: 0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 1072.8 hp * 0.00205 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 3.74 ton/yr

Diesel Generator(s) (up to 300 kW)

Generator Size = 300 kW

1kW = 1.3410 hp

300kW * 1.341 = 402.3 hp

7000 Btu = 1 Hp-hr

Hours of Operation: 3400 hr/yr

PM Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 402.3 hp * 0.0022 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 1.50 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Calculations: 402.3 hp * 0.0022 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 1.50 ton/yr

NO_x Emissions:
 Emission Factor: 0.0310 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Calculations: 402.3 hp * 0.031 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 21.20 ton/yr

VOC Emissions:
 Emission Factor: 0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Calculations: 402.3 hp * 0.00247 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 1.69 ton/yr

CO Emissions:
 Emission Factor: 0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Calculations: 402.3 hp * 0.00668 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 4.57 ton/yr

SO_x Emissions:
 Emission Factor: 0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Calculations: 402.3 hp * 0.00205 lb/hp-hr * 3400hr/yr * 0.0005 ton/lb= 1.40 ton/yr

Aggregate delivery to ground storage

Process Rate: 150 yd³/hr
 Hours of operation: 8760 hr/yr

PM Emissions:
 Emission Factor: 0.0064 yd³/hr (AP-42, Table 11.12-6, 6/06)
 Calculations: 0.0064 lb/yd³ * 150 yd³/hr = 0.96 lb/hr
 0.96 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.20 ton/yr

PM₁₀ Emissions:
 Emission Factor: 0.0031 yd³/hr (AP-42, Table 11.12-6, 6/06)
 Calculations: 0.0031 yd³/hr * 150 yd³/hr = 0.47 lb/hr
 0.465 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.04 ton/yr

Sand delivery to ground storage

Process Rate: 150 yd³/hr
 Hours of operation: 8760 hr/yr

PM Emissions:
 Emission Factor: 0.0015 yd³/hr (AP-42, Table 11.12-6, 6/06)
 Calculations: 0.0015 lb/yd³ * 150 yd³/hr = 0.23 lb/hr
 0.225 lb/hr * 8760 hr/yr * 0.0005 ton/lb = .99 ton/yr

PM₁₀ Emissions:
 Emission Factor: 0.0007 yd³/hr (AP-42, Table 11.12-6, 6/06)
 Calculations: 0.0007 yd³/hr * 150 yd³/hr = 0.11 lb/hr
 0.105 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.46 ton/yr

Aggregate transfer to conveyor

Process Rate: 150 yd³/hr
 Hours of operation: 8760 hr/yr

PM Emissions:
 Emission Factor: 0.0064 yd³/hr (AP-42, Table 11.12-6, 6/06)
 Calculations: 0.0064 lb/yd³ * 150 yd³/hr = 0.96 lb/hr
 0.96 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.20 ton/yr

PM₁₀ Emissions:
 Emission Factor: 0.0031 yd³/hr (AP-42, Table 11.12-6, 6/06)
 Calculations: 0.0031 yd³/hr * 150 yd³/hr = 0.47 lb/hr
 0.465 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.04 ton/yr

Sand transfer to conveyor

Process Rate: 150 yd³/hr
 Hours of operation: 8760 hr/yr

PM Emissions:
 Emission Factor: 0.0015 yd³/hr (AP-42, Table 11.12-6, 6/06)

Calculations: $0.0015 \text{ lb/yd}^3 * 150 \text{ yd}^3/\text{hr} = 0.23 \text{ lb/hr}$
 $0.225 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = .99 \text{ ton/yr}$
 PM₁₀ Emissions:
 Emission Factor: $0.0007 \text{ yd}^3/\text{hr}$ (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0007 \text{ yd}^3/\text{hr} * 150 \text{ yd}^3/\text{hr} = 0.11 \text{ lb/hr}$
 $0.105 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.46 \text{ ton/yr}$

Aggregate transfer to elevated storage

Process Rate: $150 \text{ yd}^3/\text{hr}$
 Hours of operation: 8760 hr/yr
 PM Emissions:
 Emission Factor: $0.0064 \text{ yd}^3/\text{hr}$ (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0064 \text{ lb/yd}^3 * 150 \text{ yd}^3/\text{hr} = 0.96 \text{ lb/hr}$
 $0.96 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 4.20 \text{ ton/yr}$
 PM₁₀ Emissions:
 Emission Factor: $0.0031 \text{ yd}^3/\text{hr}$ (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0031 \text{ yd}^3/\text{hr} * 150 \text{ yd}^3/\text{hr} = 0.47 \text{ lb/hr}$
 $0.465 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 2.04 \text{ ton/yr}$

Sand transfer to elevated storage

Process Rate: $150 \text{ yd}^3/\text{hr}$
 Hours of operation: 8760 hr/yr
 PM Emissions:
 Emission Factor: $0.0015 \text{ yd}^3/\text{hr}$ (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0015 \text{ lb/yd}^3 * 150 \text{ yd}^3/\text{hr} = 0.23 \text{ lb/hr}$
 $0.225 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = .99 \text{ ton/yr}$
 PM₁₀ Emissions:
 Emission Factor: $0.0007 \text{ yd}^3/\text{hr}$ (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0007 \text{ yd}^3/\text{hr} * 150 \text{ yd}^3/\text{hr} = 0.11 \text{ lb/hr}$
 $0.105 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.46 \text{ ton/yr}$

Cement delivery to silo

Process Rate: $150 \text{ yd}^3/\text{hr}$
 Hours of operation: 8760 hr/yr
 PM Emissions:
 Emission Factor: $0.002 \text{ yd}^3/\text{hr}$ Cartridge Dust control (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.002 \text{ lb/yd}^3 * 150 \text{ yd}^3/\text{hr} = 0.03 \text{ lb/hr}$
 $0.03 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.13 \text{ ton/yr}$
 PM₁₀ Emissions:
 Emission Factor: $0.001 \text{ yd}^3/\text{hr}$ Cartridge Dust control (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.001 \text{ yd}^3/\text{hr} * 150 \text{ yd}^3/\text{hr} = 0.02 \text{ lb/hr}$
 $0.015 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.07 \text{ ton/yr}$

Weigh hopper loading

Process Rate: $150 \text{ yd}^3/\text{hr}$
 Hours of operation: 8760 hr/yr
 PM Emissions:
 Emission Factor: $0.0079 \text{ yd}^3/\text{hr}$ Controlled (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0079 \text{ lb/yd}^3 * 150 \text{ yd}^3/\text{hr} = 1.19 \text{ lb/hr}$
 $1.185 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 5.19 \text{ ton/yr}$
 PM₁₀ Emissions:
 Emission Factor: $0.0038 \text{ yd}^3/\text{hr}$ Controlled (AP-42, Table 11.12-6, 6/06)
 Calculations: $0.0038 \text{ yd}^3/\text{hr} * 150 \text{ yd}^3/\text{hr} = 0.57 \text{ lb/hr}$
 $0.57 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 2.50 \text{ ton/yr}$

Central mix loading

Process Rate: 150 yd³/hr
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0173 yd³/hr Controlled (AP-42, Table 11.12-6, 6/06)
0.002422 lbs/yd³
Calculations: 0.002422 lb/yd³ * 150 yd³/hr = 0.36 lb/hr
0.3633 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.59 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0048 yd³/hr Controlled (AP-42, Table 11.12-6, 6/06)
0.000672 lbs/yd³
Calculations: 0.000672 yd³/hr * 150 yd³/hr = 0.10 lb/hr
0.1008 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.44 ton/yr

V. Existing Air Quality

Permit #3897-00 is issued for the operation of a portable crushing and screening facility and a concrete batch plant at any location within Montana, excluding those areas that have a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas. Permit #3897-00 covers this portable plant while operating in those areas within Montana classified as being in attainment with federal ambient air quality standards, and those areas not yet classified.

VI. Air Quality Impacts

This permit contains conditions and limitations that would protect air quality for the site and surrounding area, and that would limit the facility's emissions below the Title V threshold. Based on the information provided, the Department believes that the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standard. In addition, this facility is a portable source that will operate on an intermittent and temporary basis at a given location, so any impacts to air quality will be minor and short-lived.

VII. Taking or Damaging Implication Analysis

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

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Nitty Gritty Dirt, LLC

Permit Number: #3897-00

Preliminary Determination Issued: 01/12/07

Department Decision Issued: 01/30/07

Permit Final: 02/15/07

1. Legal Description of Site: Nitty Gritty would operate a portable concrete batch plant with an associated crusher and screen. This facility would initially located in the NE ¼ of Section 5, Township 2 North, Range 1 East in Broadwater County. However, Permit #3897-00 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM₁₀ nonattainment areas. A Missoula County air quality permit would be required for locations within Missoula County, Montana. Nitty Gritty would be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM₁₀ nonattainment areas.
2. Description of Project: Nitty Gritty would operate a portable concrete batch plant and associated crusher and screen. For a typical operation, stockpiled aggregate would be dispensed from bins and dumped onto conveyors that transfer aggregate to the crushing and screening facility. Once material is crushed and screened, material would be separated by size and stockpiled for use at the batch plant. Conveyors would transfer aggregate, sand, and cement to elevated silos. The sand, gravel, cement, and water would be loaded into a central mix bin where they would be mixed together to form concrete. Then the concrete would be transferred to various construction operations.
3. Objectives of Project: The object of the project would be to produce business and revenue for the company by the sale and use of concrete. The issuance of Permit #3897-00 would allow Nitty Gritty to operate the permitted equipment at various locations throughout Montana.
4. Additional Project Site Information: Although this permit is designated as portable, the initial site location would be the NE ¼ of Section 5, Township 2 North, Range 1 East in Broadwater County. Given the size and the nature of this project, it is likely that this project would also require a permit through the Industrial and Energy Minerals Bureau (IEMB) prior to construction. In this case, an extensive environmental assessment would be completed and would be located in the Mined Land Reclamation Permit for this specific site.
5. Alternatives Considered: In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Nitty Gritty demonstrated compliance with all

applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

6. A Listing of Mitigation, Stipulations, and Other Controls: A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in Permit #3897-00.
7. Regulatory Effects on Private Property Rights: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.
8. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no action alternative” was discussed previously.

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

Summary of Comments on Potential Physical and Biological Effects: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

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 terrestrial and aquatic life because facility emissions would be well dispersed in the area of operation (see Section 8.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

Water would be required for dust suppression on the surrounding roadways and at areas of operation for equipment pollution control. However, pollution control for portions of the plant could be accomplished using a small volume of water and therefore, only minor amounts of pollutant deposition would occur. Any pollutant deposition in the area would be seasonal and intermittent given the portable nature of the batch plant. There are no known surface water sources that would be impacted as a result of this project. Therefore, only minor surface and groundwater quality impacts would be expected.

C. Geology and Soil Quality, Stability, and Moisture

The proposed project would have minor impacts on geology and soil quality, stability and moisture because deposition of air pollutants on soils would be minor (see Section 8.F of this EA). Only minor amounts of water would be required for pollution control, and only minor amounts of pollution would be generated. Pollutants would be widely dispersed before settling upon vegetation and surrounding soils (see Section 8.D of this EA). Therefore, any effects upon geology and soil quality, stability, and moisture at this proposed operational site would be minor and short-term.

D. Vegetation Cover, Quantity, and Quality

The plant would be considered a minor source of emissions by industrial standards, and would typically operate in areas previously designated and used for this type of operation. Minor impacts would occur on vegetative cover, quality, and quantity because this facility would be operating on an intermittent and temporary basis. Pollutants would be greatly dispersed and corresponding deposition on vegetation from the proposed project would be minor. The Department contacted Montana Natural Heritage Program (MNHP) in an effort to determine if there are any species of concern in or near this area. However, MNHP noted that there are no known vegetative species of concern at the initial site location. Therefore, given the temporary and portable nature of the batch plant, the fact that there are no known vegetative species of concern, and that pollutants would be widely dispersed, minor impacts to vegetative cover, quantity and quality would occur as a result of this project.

E. Aesthetics

The concrete batch plant's operation would be visible, and would create additional noise. However according to the applicant, the nearest house is located more than 1,000 feet away and the nearest town would be Three Forks. Permit #3897-00 would include conditions to control emissions, including visible emissions from the plant. Since the plant 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, Permit #3897-00 would include conditions limiting the facility's opacity and the facility's operation. Water would be required on-site at all times to control emissions. The permit would also limit total emissions from the plant and any additional Nitty Gritty equipment operated at the site to 250 tons/year or less, excluding fugitive

emissions.

Further, the Department determined that the concrete batch plant would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's PTE was limited below the major source threshold level of 100 tons per year for any regulated pollutant. 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 plant in this area would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources contacted MNHP. Search results concluded there are six species of concern located one mile or more from the initial plant location. The Brewer's Sparrow, Long-Billed Curlew, and Sage Thrasher are all designated as a sensitive species of concern; whereas, the Grasshopper Sparrow, Bobolink, and Lark Bunting are not designated as sensitive or otherwise. However, none of the above species are located within the initial project site and therefore, the impacts to unique endangered, fragile or limited environmental resources would be minor.

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

Only small quantities of water would be required for dust suppression of emissions being generated at the site. Impacts to air resources would be minimal because the source would be considered a minor industrial source of emissions, with intermittent and seasonal operations. Because air pollutants generated by the facility would be widely dispersed (see Section 8.F of this EA) and energy requirements would be provided by two diesel generators, any impacts to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

The Department previously contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and archaeological sites that may be present in the proposed area of operation. Search results concluded that there are no previously recorded historical or archaeological resources of concern within the area proposed for initial operation. According to correspondence from the SHPO, there would be a low likelihood of adverse disturbance to any known archaeological or historic site given previous industrial disturbance to the area.

However, according to information submitted by the applicant, fossil vertebrates have been previously collected approximately 1-2 miles south of the initial site location. SHPO was aware of this information, and believes that this site will not impact any paleontological sites, but if anything is encountered the applicant should contact SHPO. Therefore, minor impacts upon historical or archaeological sites would be expected as a result of operating the proposed concrete batch plant.

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 is an existing source and would be limited in the amount of PM, PM₁₀, NO_x, VOC, CO, and SO_x emissions generated. Emissions and noise generated from the equipment would, at most, result in only minor impacts

to the area of operation because it would be seasonal and temporary in nature. Additionally, this facility, in combination with other emissions from equipment operations would not be permitted to exceed 250 tons per year of non-fugitive emissions. Overall, cumulative and secondary impacts to the physical and biological aspects of the human environment would be minor.

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

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

Summary of Comments on Potential Economic and Social Effects: The following comments have been prepared by the Department.

A. Social Structures and Mores

The concrete batch plant would cause no disruption to the social structures and mores in the area because the source would be considered a minor industrial source of emissions, and would have temporary and intermittent operations. Further, the facility would be required to operate according to the conditions placed in Permit #3897-00, 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 concrete batch plant because the facility would be a portable source, with seasonal and intermittent operations. The predominant use of the surrounding area would not change as a result of this concrete batch plant. Therefore, the cultural uniqueness and diversity of the area would not be affected.

C. Local and State Tax Base and Tax Revenue

The concrete batch plant 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 of emissions, and would have seasonal and intermittent operations. Only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. According to the applicant approximately 10 people would be employed as a result of this project. Because the facility is portable and temporary it is unlikely that people would move to the area. Impacts to local tax base and revenue would be minor and short-term because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The initial site for the batch plant would be located on private property and would encompass approximately 10 acres. The concrete batch plant operation would have only a minor impact on local industrial production since the facility would be considered a minor source of concrete production and air emissions. Also, the portable facility would generally locate in a rural area. Minimal deposition of air pollutants would occur on the surrounding land (see Section 8.F of this EA) and only minor and temporary effects on the surrounding vegetation would occur. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation (see Section 8.D of this EA). Overall, the impacts to agricultural or industrial production would be minor.

E. Human Health

Permit #3897-00 would incorporate conditions to ensure that the concrete batch plant operation would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to protect human health. Air emissions from this facility would be minimized by the use of water and other process limits that would be required by Permit #3897-00. Because the facility would operate on a temporary basis and pollutants would be widely dispersed, only minor impacts would be expected on human health from the concrete batch plant operation.

F. Access to and Quality of Recreational and Wilderness Activities

Access to recreational opportunities would not be limited by this facility. All recreational opportunities, if available in the area, would still be accessible. Noise from the facility would be minimal to surroundings because of the facility size, hours of operation, and rural location. The facility would operate on a seasonal and intermittent basis on private land and would be a minor industrial source of emissions. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment at this site would be minor.

G. Quantity and Distribution of Employment

According to the applicant, the plant operation would require approximately 10 employees. However, there would be other transient employees (i.e. truck drivers for aggregate, cement, load out, etc.), but still essential to the concrete batch plant. Only a few individuals would be expected to permanently relocate as a result of operating the concrete batch plant. Therefore, be minor effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

The concrete batch plant is a portable industrial facility that would require few employees to operate. Few individuals would be expected to permanently relocate to this area. Therefore, the

concrete batch plant would only minimally impact the normal population distribution in the initial area of operation or any future operating site.

I. Demands of Government Services

This project would result in an increase in traffic on existing roadways while the concrete batch plant is in progress. 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. However, any increase or 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 proposed area of operation because this source is a relatively small industrial source that would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

Nitty Gritty would be allowed by Permit #3897-00 to operate in areas designated by EPA as attainment or unclassified for ambient air quality. Permit #3897-00 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. Because the facility would have intermittent and seasonal operations any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The concrete batch plant 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 portable and temporary. Further, no other industrial operations would be expected to result from permitting this facility. Any minor increase in traffic would have little effect on local traffic in the immediate area. Because the source would be 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 Nitty Gritty, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, only minor and temporary cumulative and secondary effects would result.

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: All potential effects resulting from construction and operation of the proposed facility are minor and temporary; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Department of Environmental Quality - Permitting and Compliance Division (Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Montana Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana State Historic Preservation Office (Montana Historical Society).

EA prepared by: Jenny O'Mara
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