

AIR QUALITY PERMIT

Issued To: United Materials of Great Falls, Inc. Permit: #3280-01
P.O. Box 1690 Application Complete: 01/10/07
Great Falls, MT 59403 Preliminary Determination Issued: 01/22/07
Department's Decision Issued: 02/22/07
Permit Final: 3/10/07
AFS #: 777-3280

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

SECTION I: Permitted Facilities

A. Plant Location

UMGF owns and operates a portable central mix concrete batch plant operation, originally located in the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana. However, Permit #3280-01 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum to this air quality permit will be required for locations in or within 10 km of certain PM₁₀ nonattainment areas.

B. Current Permit Action

On January 10, 2007, the Department received a complete Montana Air Quality Permit (MAQP) Application from UMGF. Specifically, UMGF requested to add an auxiliary cement guppy and an auxiliary flyash guppy to the permit. In addition, UMGF requested that the size range of diesel generator allowed to be operated be increased from up to 600 kilowatt (kW) to up to 1250 kW. Further, UMGF requested that the hours of operation of the generator be limited to 3792 hours to limit the facility's Potential to Emit (PTE) oxides of nitrogen (NO_x) below the Title V Operating Permit threshold.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. UMGF shall install, operate, and maintain the fabric filter dust collectors, the mixer charging shoot, and mixer nose plug as specified in MAQP #3280-01 and all supporting documentation (ARM 17.8.752):
 - a. UMGF shall install, operate, and maintain the fabric filter dust collectors on the cement silo, cement supplement silo; auxiliary cement guppy, and the auxiliary flyash guppy.
 - b. UMGF shall install, operate, and maintain the mixer charging shoot and mixer nose plug on the concrete plant.

2. UMGF shall not cause or authorize to be discharged into the atmosphere from the ready mix 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 (ARM 17.8.308 and ARM 17.8.752).
3. UMGF 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).
4. UMGF shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.752).
5. Total plant production shall be limited to 2,409,000 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
6. If the permitted equipment is used in conjunction with any other equipment owned or operated by UMGF, at the same site, production shall be limited to correspond with an emissions 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).
7. UMGF shall not operate more than one diesel generator at any given time and the maximum rated design capacity shall not exceed 1250 kW (ARM 17.8.749).
8. Operation of the diesel generator shall not exceed 3,792 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

B. Emissions Monitoring

1. UMGF shall inspect the baghouses and their vents every 6 months of operation to ensure that each collector is operating at the optimum efficiency recommended by the manufacturer. Records of inspections, repairs, and maintenance shall be kept for a minimum of five years (ARM 17.8.749).
2. UMGF shall maintain on-site records of inspections, repairs, and maintenance. All records compiled in accordance with this permit shall be maintained by UMGF as a permanent business record for at least five years following the date of the 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. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. If this concrete batch plant is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).

2. UMGF 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. UMGF shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, ten 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. UMGF 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 UMGF as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. UMGF shall document, by month, the total concrete plant production. By the 25th day of each month, United shall calculate the plant production for the previous month. The monthly information will be used to verify compliance with the limitation contained in Section II.A.5. The information for each of the previous months shall be submitted annually to the Department along with the annual emission inventory (ARM 17.8.749).

6. UMGF shall document, by month, the total hours of operation of the diesel generator. By the 25th day of each month, UMGF shall calculate the hours of operation of the diesel generator for the previous month. The monthly information will be used to verify compliance with the limitation in Section II.A.8. The information for each of the previous months shall be submitted annually to the Department along with the annual emission inventory (ARM 17.8.749).

7. UMGF 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).

SECTION III: General Conditions

- A. Inspection – UMGF 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 UMGF fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving UMGF of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, 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 UMGF may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. UMGF 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, tribal lands, or those areas in or within 10 km of certain PM₁₀ nonattainment areas.

Permit Analysis
United Materials of Great Falls, Inc.
Permit #3280-01

I. Introduction/Process Description

United Materials of Great Falls, Inc. (UMGF) owns and operates a portable central mix concrete batch plant operation, originally located in the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana.

A. Permitted Equipment

UMGF's facility consists of a 2003 Erie Strayer Central Mix Concrete Batch Plant (maximum capacity of 275 cubic yards per hour (yd³/hr)), with a diesel generator (maximum capacity up to 1250 kilowatts (kW)), and associated equipment. Particulate emissions from the cement silo, the cement supplement silo, the auxiliary cement guppy, and the auxiliary fly ash guppy are controlled by 2003 C&W fabric filter dust collectors. In addition, particulate emissions from the cement batcher are controlled by a mixer charging shoot (loading the batcher) and mixer nose plug (while batcher is mixing).

B. Source Description

Washed aggregate materials are loaded into a 3-compartment aggregate storage bin that feeds a conveyor. The conveyor feeds an aggregate batcher and drops the materials onto a mixer-charging shoot. Meanwhile, the cement and cement supplement (fly ash) are both pneumatically loaded into silos which use fabric filters to control particulate emissions. The auxiliary cement guppy and the auxiliary fly ash guppy store additional cement/flyash and also use fabric filters to control particulate emissions. The cement supplement is screw fed to the cement batcher and the cement is gravity fed into the cement batcher and into the mixer-charging shoot. Water is also loaded into the central mix cement batcher. The mixer nose plug prevents emissions from exiting the cement batcher during the mixing process. Materials are mixed and loaded into a mixer truck by means of the concrete directional chute. Materials are then ready to be transported, as cement, to the construction site.

C. Permit History

On August 13, 2003, UMGF submitted a complete Montana Air Quality Permit Application for the construction and operation of a 2003 Erie Strayer Central Mix Concrete Batch Plant (maximum capacity of 275 yd³/hr), with a diesel generator (maximum capacity up to 600 kilowatts (kW)), and associated equipment. On October 2, 2003, Permit **#3280-00** became final.

D. Current Permit Action

On January 10, 2007, the Department of Environmental Quality (Department) received a complete Montana Air Quality Permit Application from UMGF. Specifically, UMGF requested to add an auxiliary cement guppy and an auxiliary flyash guppy to the permit. In addition, UMGF requested that the size range of diesel generator allowed to be operated be increased from up to 600 kW to up to 1250 kW. Further, UMGF requested that the hours of operation of the generator be limited to 3792 hours to limit the facility's Potential to Emit (PTE) oxides of nitrogen (NO_x) below the Title V Operating Permit threshold. Permit **#3280-01** replaces Permit #3280-00. The permit was originally inadvertently issued with the wrong capacity on the generator (1200-kW); therefore, the Department corrected the capacity (1250-kW) and adjusted the hours of operation for the generator so that the emissions remained exactly the same.

E. Additional Information

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

UMGF 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

UMGF 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 that reasonable precautions be taken to control emissions of airborne Particulate Matter (PM). (2) Under this rule, UMGF 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. Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions.
 6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
 7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.
- 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. UMGF 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, concrete batch plant, mineral crusher or mineral screen that has the PTE greater than 15 tons per year of any pollutant. UMGF has a PTE greater than 15 tons per year of particulate matter (PM), particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀), NO_x, volatile organic compounds (VOC), carbon monoxide (CO), and oxides of sulfur (SO_x); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. UMGF 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. UMGF submitted an affidavit of publication of public notice for the December 26, 2006, issue of *The Great Falls Tribune*, a newspaper of general circulation in the Town of Great Falls in Cascade County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section 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 UMGF 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 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 greater than 100 tons per year of any pollutant;
 - b. PTE greater than 10 tons per year of any one Hazardous Air Pollutant (HAP), PTE greater than 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE greater than 70 tons per 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 #3280-01 for UMGF, the following conclusions were made:
 - a. The facility's has requested a federally enforceable limit in Permit #3280-01 to restrict NO_x PTE below 100 tons per year;
 - b. The facility's PTE is less than 10 tons per year for any one HAP and less than 25 tons per year for all HAPs;
 - c. This source is not located in a serious PM₁₀ nonattainment area;
 - d. This facility is not subject to any current NSPS;
 - e. This facility is not subject to any current National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations;
 - f. This source is neither a Title IV affected source nor a solid waste combustion unit;
 - g. This source is not an Environmental Protection Agency (EPA) designated Title V source; and
 - h. 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 (ARM 17.8.1204(3)).
 - 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.

Based on these facts and because UMGF's permitted PTE NO_x is limited to 98.52 tons per year, the Department has determined that UMGF will be classified as a synthetic minor 80 (SM 80) source of emissions.

3. ARM 17.8.1207, Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

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

A. Cement Auxiliary Guppy/Flyash Auxiliary Guppy

All visible emissions from the cement/flyash guppy shall be limited to less than 20% opacity. UMGF shall use a fabric filter dust collector for each of the guppies. The Department determined that using a fabric filter dust collector on each of the guppies to maintain compliance with the opacity limitation constitutes BACT for these sources in this case.

B. Diesel Generator

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

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

IV. Emission Inventory

Source	Tons Per Year					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Aggregate Delivery to Ground Storage	7.75	3.71				
Sand Delivery to Ground Storage	1.81	0.85				
Aggregate Transfer to Conveyor	7.75	3.71				
Sand Transfer to Conveyor	1.81	0.85				
Aggregate Transfer to Elevated Storage	7.75	3.71				
Sand Transfer to Elevated Storage	1.81	0.85				
Cement Unloading to Elevated Storage Silo/Guppy	0.43	0.27				
Cement Supplement Unloading to Elevated Storage Silo/Guppy	0.28	0.10				
Weigh Hopper Loading of Sand/Aggregate	3.04	1.43				
Central Mix Loading of Cement/Supplement/Sand/Aggregate	51.14	18.13				
Haul Roads	2.74	1.23				
Diesel Generator (up to 1250 kW)	6.99	6.99	98.52	7.85	21.23	9.08
Total	93.30	41.83	98.52	7.85	21.23	9.08
*A complete emission inventory for Permit #3280-01 is on file with the Department.						
**The hours of operation of the diesel generator were limited to keep NO _x emissions below 100 tons per year.						

V. Existing Air Quality

Permit #3280-01 is for the operation of a portable central mix concrete batch plant to be originally located in the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana. This facility would be allowed to operate at this proposed site and any other areas of Montana designated as attainment or unclassified for the National Ambient Air Quality Standards (NAAQS), except within those areas that have a Department-approved permitting program, tribal lands, or those areas in or within 10 km of certain PM₁₀ nonattainment areas.

VI. Air Quality Impacts

Based on the relatively small amount of emissions resulting from the current permit action and the limits and conditions that would be included in Permit #3280-01, the Department believes that the allowable/permitted emissions from this source would not cause or contribute to an exceedance of any ambient air quality standard while operating in any area classified as attainment or unclassified for the NAAQS.

VII. Ambient Air Impact Analysis

The Department determined, based on the relatively small amount of emissions resulting from the current permit action and the limits and conditions that would be included in Permit #3280-01, that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. 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.

IX. Environmental Assessment

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

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

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

Air Quality Permit number: 3280-01

Preliminary Determination Issued: January 22, 2007

Department Decision Issued: February 22, 2007

Permit Final: March 10, 2007

1. Legal Description of Site: Permit #3280-01 would apply while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum to Permit#3280-01 would be required for locations in or within 10 km of certain PM₁₀ nonattainment areas. The facility is currently located at 235 Airport Bench Road in Great Falls, MT. The legal description of the current location is the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana.
2. Description of Project: The project would consist of adding the auxiliary cement guppy and the auxiliary flyash guppy to the permit and increasing the size of the diesel generator that can be operated from up to 600 kW to up to 1250 kW.
3. Objectives of Project: The proposed generator would create additional business and revenue for UMGF and provide services for additional construction activity, state-wide.
4. Alternatives Considered: In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because UMGF has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. A Listing of Mitigation, Stipulations, and Other Controls: A list of enforceable conditions, including a BACT analysis, would be included in Permit #3280-01.
6. Regulatory Effects on Private Property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

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

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

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

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the same area as the 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 UMGF operation is an existing facility, would be considered a minor source of emissions, and would have intermittent and seasonal operations. The additional emissions associated with the current permit action would have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of operations (see Section 8.F of this EA). Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the proposed project.

B. Water Quality, Quantity and Distribution

Water would be required for dust suppression on the surrounding roadways and areas of operation. However, pollutant deposition and water use would cause only minor, if any, impacts to water resources in these areas because the facility would only require a relatively small amount of water for pollution control and would only have minor amounts of pollutant deposition (see Section 8.F of this EA).

C. Geology and Soil Quality, Stability and Moisture

The concrete batch plant operation would have only 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 to be used for pollution control, and only minor amounts of pollution would be generated. In addition, the 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 would be minor.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would occur on vegetative cover, quality, and quantity because the facility would be portable and would typically operate in areas where vegetation has been previously disturbed. Only minor amounts of pollutants would be emitted and the pollutants would be greatly dispersed and corresponding deposition on vegetation from the proposed project would be minor (see Section 8.F of this EA). Therefore, because of the portable nature of the facility, because only minor amounts of pollutants would be emitted, and because the pollutants would be greatly dispersed, the associated impacts upon vegetation cover, quantity, and quality would be minor.

E. Aesthetics

The existing concrete batch plant facility would be visible and would create noise. However, Permit #3280-01 would include conditions to control emissions, including visible emissions, from the facility. Since the concrete batch plant is an existing portable facility and would operate on an intermittent and seasonal basis, any visual aesthetic impacts would be minor and short-lived.

F. Air Quality

Additional air quality impacts from the proposed project would be minor because the concrete batch plant is an existing facility that would operate on an intermittent and temporary basis and emissions from the facility would remain relatively the same. Permit #3280-01 would include conditions limiting the facility's opacity and the facility's production. Permit #3280-01 would also require water to be available on site and used to control fugitive emissions. Permit #3280-01 would also limit total emissions from the facility and any additional UMGF equipment operated at the same site to 250 tons per year or less, excluding fugitive emissions.

Further, the Department determined that the existing concrete batch plant would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's emissions would be limited below the major source threshold level of 100 tons per year for any regulated pollutant. Pollutant deposition from the facility would be minor because the 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 the small amount of emissions). Therefore, air quality impacts from operating the concrete batch plant would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources, the Department previously contacted the Montana Natural Heritage Program (MNHP). Search results concluded there were no known environmental resources of special concern within the area. Therefore, the Department determined that it would be unlikely that the proposed project would impact any species of concern and that any potential impacts would be minor.

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

Due to the relatively small size of the facility, the concrete batch plant operation would only require small quantities of water, air, and energy for proper operation. Only small quantities of water would be required for dust suppression of emissions being generated at the site. Any additional impacts to air resources would be minor because the source is an existing minor industrial source of emissions with intermittent and seasonal operations and because air pollutants

generated by the facility would be widely dispersed (see Section 8.F of this EA). Energy requirements would be small because the facility would be powered by an industrial diesel generator. Overall, any impacts to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and/or archaeological sites that may be present in the initial proposed area of operation, the Department previously contacted the Montana Historical Society - State Historical Preservation Office (SHPO). Search results concluded that there are no previously recorded historical or archaeological resources of concern within the area proposed for initial operations. According to past correspondence from SHPO, there would be a low likelihood of adverse disturbance to any known archaeological or historic site given previous industrial disturbance to an area. Therefore, no impacts upon historical or archaeological sites would be expected as a result of the proposed modification to the existing concrete batch plant because the operational site has already been disturbed and because no previously recorded historical/archaeological resources have been identified at the proposed operational site location.

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 be limited in the amount of PM, PM₁₀, NO_x, VOC, CO, and SO_x emissions to be generated. Additional emissions and noise generated from the proposed project would, at most, result in only minor impacts to the area of operations because of the proposed equipment location for the facility and because the concrete batch plant would be seasonal and temporary in nature. The proposed project would have minor cumulative effects upon resource within the area. These resources include water, terrestrial and aquatic life, soils, and vegetation. Overall, 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 is an existing minor industrial source of emissions and would only have temporary and intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in Permit #3280-01, which would limit any possible impacts to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed concrete batch plant operation because the facility would typically operate at sites that have been used for such operations and is typically separated from the general population. Additionally, the facility would be a portable/temporary source with seasonal and intermittent operations. 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 operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be an existing minor industrial source of emissions and would have seasonal and intermittent operations. The proposed project would require the use of only one additional employee. Thus, only minor impacts to the local and state tax base and revenue could be expected from the proposed project. Furthermore, the impacts to local tax base and revenue would be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The additional emissions associated with the proposed project would have only a minor impact on local industrial production since the facility would be a minor source of concrete production and air emissions. Also, the facility would originally locate in an area that has been used for such operations. Therefore, because minimal deposition of air pollutants would occur on the surrounding land (see Section 8.F of this EA), 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).

E. Human Health

Permit #3280-01 would incorporate conditions to ensure that the facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 8.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other process limits that would be required by Permit #3280-01. Also, the facility would be operating on a temporary basis and pollutants would be dispersed (see Section 8.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed project.

F. Access to and Quality of Recreational and Wilderness Activities

Additional noise from the facility would be minor because the facility would be small, would operate on a seasonal and intermittent basis, and would be operating at an existing site. As a result, the amount of noise generated from the facility would be minor. Also, the existing concrete batch plant would be a relatively minor industrial source of emissions. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment would be expected to be minor and intermittent.

G. Quantity and Distribution of Employment

The proposed project would only require one new employee and would have seasonal and intermittent operations. Large amounts of people would not be expected to permanently relocate to the area of operation as a result of implementing the proposed project. Therefore, only minor effects upon the quantity and distribution of employment in the area would be expected.

H. Distribution of Population

The concrete batch plant is a portable industrial facility and the proposed project would only require one new employee. Large amounts of people would not be expected to permanently relocate to the area of operation as a result of implementing the proposed project. Therefore, only minor effects upon the distribution of population in the area would be expected.

I. Demands for Government Services

Minor increases would be seen in 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 for the proposed project and to verify compliance with the permits that would be issued. Demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed project would represent only a minor increase in the industrial activity in the proposed area of operation because the source is an existing concrete batch plant and would remain 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 implementing the proposed project.

K. Locally Adopted Environmental Plans and Goals

Permit #3280-01 would allow UMGF to operate in areas designated by EPA as attainment or unclassified for the National and Montana ambient air quality standards. Permit #3280-01 would include limits and conditions that would protect air quality and keep facility emissions in compliance with any applicable ambient air quality standard. In addition to the air quality protection provided by Permit #3280-01, the facility would be a portable source and would have intermittent and seasonal operations. Thus, any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The concrete batch plant operations would cause only minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source. Further, no other industrial operations are expected to result from implementing the proposed project. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the

facility. Further, this facility may be operated in conjunction with other equipment owned and operated by UMGF, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, only minor and temporary cumulative effects would result to the local economy.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the addition of equipment at an existing concrete batch plant. Permit #3280-01 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

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Date: January 10, 2007