Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: March 16, 2011

Name of Applicant: Jim Gilman Excavating, Inc.

Source: Portable Crushing and Screening Operation

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Montana Air Quality Permit Application Number 2545-06.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by April 15, 2011. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3490

Paul Skubinna
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

VW:PS
Enclosures

MONTANA AIR QUALITY PERMIT

Issued To: Jim Gilman Excavating, Inc.
3099 Grand Avenue
Butte, MT 59701

MAQP: #2545-06
Application Complete: 2/4/11
Preliminary Determination Issued: 3/16/11
Department's Decision Issued:
Permit Final:
AFS #: 777-2545

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Jim Gilman Excavating, Inc. (Gilman) 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

Gilman operates a portable nonmetallic mineral processing plant, which is currently located at Section 25, Township 4 North, Range 10 West within Deer Lodge County, Montana. However, MAQP #2545-06 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

B. Current Permit Action

On January 10, 2011, the Department received a permit modification application from Gilman. The application provided updated information regarding the engines used to power the electrical generators operated under the permit pursuant to the Administrative Order on Consent from Docket No AQ-10-04 (FID 1891). The proposed engines include a Tier two (2), 2,206-horsepower (hp) compression ignition engine to power the primary generator for the facility and a 150-hp compression ignition engine to power a generator supplying power to equipment heaters. Gilman requested hours of operation limits be placed on the engines to maintain synthetic minor status relative to the Title V Major Stationary Source threshold. This incorporates these proposed changes to the MAQP and updates the permit to conform to the Department's current permit format, language, and rule references.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):

   - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity.

- For crushers that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 15% opacity.

2. All visible emissions from any other NSPS-affected equipment (such as screens and conveyors) shall not exhibit an opacity in excess of the following averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):

   - For equipment that commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity.

   - For equipment that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity.

3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).

5. Gilman 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).

6. Gilman shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).

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7. Gilman shall not operate more than 3 crusher(s) at any given time and the total combined maximum rated design capacity of the crusher(s) shall not exceed 950 tons per hour (TPH) (ARM 17.8.749).

8. Gilman shall not operate more than 3 screen(s) at any given time and the total combined maximum rated design capacity of the screen(s) shall not exceed 1000 TPH (ARM 17.8.749).
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9. Gilman shall not operate or have on-site more than 1 primary diesel engine/generator. The maximum combined capacity of the engine that drives the primary generator shall not exceed 2,206 hp (ARM 17.8.749).

10. The engine driving the primary generator shall be Tier 2 certified or higher under 40 CFR Part 89 (ARM 17.8.749).

11. The minimum stack height for engine driving the primary generator shall be maintained at a minimum height of 29 feet from ground surface (ARM 17.8.749).

12. Operation of the diesel engine driving the primary generator shall not exceed 3,640 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

13. The maximum combined capacity of the compression ignition engines that drive the equipment heater generator(s) shall not exceed 150 hp (ARM 17.8.749).

14. Operation of the diesel engine(s) driving the equipment heater generator shall not exceed 5,120 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

15. If the permitted equipment is used in conjunction with any other equipment owned or operated by Gilman, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

16. Gilman shall comply with all applicable standards and limitations, monitoring, reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

17. Gilman shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). Additional testing may be required by 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. Gilman 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, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Gilman shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

4. Gilman 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 Gilman 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. Gilman shall document, by month, the hours of operation of the diesel engines/generators. By the 25th day of each month, Gilman shall calculate the hours of operation for the diesel engine/generator for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.11 and 13. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. Gilman 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 – Gilman 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 such as continuous emission monitoring systems (CEMS) or continuous emission rate monitoring systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Gilman fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Gilman of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq*. (ARM 17.8.756)

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Gilman may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (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. Gilman 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 or areas considered tribal lands.

Montana Air Quality Permit (MAQP) Analysis
Jim Gilman Excavating, Inc.
MAQP #2545-06

I. Introduction/Process Description

A. Permitted Equipment

Jim Gilman Excavating, Inc. (Gilman) owns and operates a non-metallic mineral processing operation consisting of the following equipment:

- A 2,206 horsepower (hp) Caterpillar 3512 C GC compression ignition Tier 2 engine/generator;
- A 150 hp, Caterpillar D100P2 compression ignition engine/generator;
- 2001 El Russ M2831 Jaw Crusher (up to 150 ton per hour [TPH]);
- 1999 Allis Hydrocone portable crusher (400 TPH);
- 2001 El-Russ/Allis Hydrocone crusher (400 TPH);
- LJ Dual 7'x 20' 3-Deck Screen (each up to 500 TPH);
- Cedar Rapids TSH 7203-38 7 X 20 Screen Plant (500 TPH); and
- Associated equipment.

B. Source Description

Gilman proposes to use a crushing/screening plant, as described above, to crush and sort sand and gravel materials for sale for use in construction operations. For a typical operational setup, the raw material is processed through the jaw and hydrocone crushers. The processed material is then screened by means of the 3-deck screens and either stockpiled for use or conveyed back through the crushing/screening operation.

C. Permit History

On April 21, 1989, **MAQP #2545-00** was issued to Gilman to operate a 1988 Cedar Rapids 22"x48" jaw crusher, a 1986 El-Jay 54" cone crusher, a 1980 El-Jay 54" cone crusher, and a 1986 Cemco impact crusher, and associated equipment.

On April 1, 1994, Gilman was issued a final permit to relocate their 1988 Cedar Rapids 22"x48" jaw crusher, a 1986 El-Jay 54" cone crusher, 1980 El-Jay 54" cone crusher, and 1986 Cemco impact crusher contained in MAQP #2545-00 to Section 23, Township 3 North, Range 9 West, in Silver Bow County, Montana. The new location was approximately 2 kilometers (km) from the Butte particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment area. Therefore, the conditions contained in Gilman's MAQP #2545-00 were modified, and controls implemented, to keep the source under 547 lb/day of PM_{10} emissions. The new conditions and reporting requirements were stated in **Addendum 1** of **MAQP #2545-01**. This addendum expired on September 30, 1994.

On February 26, 1995, Gilman was issued a final permit to allow the 1988 Cedar Rapids 22"x48" jaw crusher, 1986 El-Jay 54" cone crusher, and the 1980 El-Jay 54" cone crusher to operate at the NW ¼ of Section 23, Township 3 North, Range 8 West, in Silver Bow County, Montana, during the winter months (October 1, 1995, through March 31, 1996). The facility was located within the Butte-Silver Bow PM_{10} nonattainment area. Because this location was within a PM_{10} nonattainment area, it was determined that the addendum to

MAQP #2545-01 must be modified and controls implemented to limit the impacts of the portable crushers' emissions on the nonattainment area. The new conditions and reporting requirements were stated in **Addendum 2** of **MAQP #2545-02**.

On March 2, 2001, Gilman was issued a final permit to reflect the replacement of a portable 1986 Cemco Impact crusher (125 TPH), 1986 El-Jay 54" cone (125 TPH), and 1980 EL-Jay 54" cone (125 TPH) with a portable 1999 Allis Hydrocone crusher (400 TPH), 1996 EL-Jay Rollercone II crusher (400 TPH), and 1992 EL-Jay Impact crusher (150 TPH). The replacement of the permitted equipment resulted in the generation of particulate air emissions of less than 15 ton per year; therefore, the new equipment was added in accordance with Administrative Rules of Montana 17.8.705. The permit language was also updated. Furthermore, Addendum 2 was removed from the permit because it had expired and Gilman has no plans to operate in or within 10 km of any nonattainment areas. **MAQP #2545-03** replaced MAQP #2545-02.

On March 13, 2002, the Montana Department of Environmental Quality (Department) received a request from Gilman to modify MAQP #2545-03 that would replace the 1996 El-Jay Rollercone II Crusher with a 2001 El-Russ/Allis Hydrocone Crusher. The proposed change resulted in an increase of particulate emissions of less than 15 ton per year. Therefore, the new equipment was incorporated into this permit modification in accordance with ARM 17.8.705. **MAQP #2545-04** replaced MAQP #2545-03.

On March 9, 2007, the Department received a request from Gilman to administratively amend their permit to specifically identify the existing generators currently permitted as “associated equipment.” Gilman also requested to update their permit to reflect various de minimis changes, including the replacement of the 1988 Cedar Rapids Jaw Crusher with a 2001 El Russ Jaw Crusher, and the replacement of the 1992 El-Jay Impact crusher with a 2006 Cedar Rapids 7 x 20 3-deck screen.

Gilman also requested to limit the diesel generator operations to maintain a synthetic minor status. Finally, the permit was updated to reflect the current language used by the Department. **MAQP #2545-05** replaced MAQP #2545-04.

D. Current Permit Action

On January 10, 2011, the Department received a permit modification application from Gilman. The application provided updated information regarding the engines used to power the electrical generators operated under the permit pursuant to the Administrative Order on Consent from Docket No AQ-10-04 (FID 1891). The proposed engines include a Tier 2, 2,206 hp compression ignition engine to power the primary generator for the facility and a 150 hp compression ignition engine to power a generator supplying power to equipment heaters. Gilman requested hours of operation limits be placed on the engines to maintain synthetic minor status relative to the Title V Major Stationary Source threshold. This incorporates these proposed changes to the MAQP and updates the permit to conform to the Department’s current permit format, language, and rule references. **MAQP #2545-06** will replace MAQP #2545-05.

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 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).

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

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Gilman 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 17.8.310 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.

4. 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.

5. 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). Gilman is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Gilman, the portable crushing equipment to be used under MAQP #2545-06 is subject to this subpart because crushers have a capacity greater than 150 TPH and were constructed or reconstructed after August 31, 1983.

   c. 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. Based on the information submitted by Gilman, the CI ICE equipment to be used under MAQP #2545-06 is subject to this subpart because it was constructed or reconstructed after July 11, 2005.

6. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Gilman is considered an NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts.

a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Based on the information submitted by Gilman, the RICE equipment to be used under MAQP #2545-06 is subject to this subpart because the engine is a stationary reciprocating internal combustion engine at an area source of HAP emissions that is not a test cell/stand.

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. Gilman 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.

   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 modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Gilman has a PTE greater than 15 tons per year of particulate matter (PM), PM_{10}, oxides of nitrogen (NO_x), 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, modification, or use of a source. Gilman 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. Gilman submitted an affidavit of publication of public notice for the January 12, 2011 issue of the *Montana Standard*, a newspaper of general circulation in the Town of Butte in Silver Bow County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that 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 Gilman 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 modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. 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 MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

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

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

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

a. PTE > 100 tons/year of any pollutant;

b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE > 70 tons/year PM_{10} in a serious PM_{10} 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 MAQP #2545-06 for Gilman, the following conclusions were made:

a. The facility's PTE is less than 100 tons/year.

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 PM_{10} nonattainment area.

d. This facility is subject to a current NSPS (40 CFR 60, Subparts OOO and IIII).

e. This facility is subject to a current NESHAP standard (40 CFR 63, Subpart ZZZZ).

f. This source is not a Title IV affected source

g. This source is not a solid waste combustion unit.

h. This source is not an EPA designated Title V source.

Gilman requested federally-enforceable permit limitations to remain a minor source of emissions with respect to Title V. Based on these limitations, the Department determined that this facility is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program.

i. 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.

The Department determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. <u>ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness</u>. 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 modified source. Gilman shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

<u>2,206 hp Primary Engine/Generator</u>

Gilman has proposed to install and operate a Tier 2 diesel engine to drive the primary generator set with no additional controls. The Department concurs that no additional controls on this Tier 2 engine would be BACT for this case.

150 hp Equipment Engine/Generator

Gilman has proposed to limit the hours of operation for this engine. For this size of emitting unit the Department concurs that hours of operation limits with no additional controls meets the definition for BACT in this case.

IV. Emission Inventory**

	Total PTE (tons/year)						
Emitting Unit	**PM**	**PM_{10}**	**$PM_{2.5}$**	**NO_x**	**VOC**	**CO**	**SO_x**
30 X 54 Jaw Crusher (500 TPH El Russ M2831)	2.63	1.18	0.22				
60" Cone Crusher (500 TPH - Allis H-6000)	2.63	1.18	0.22				
60" Cone Crusher (500 TPH - El Russ/Allis H-6000)	2.63	1.18	0.22				
7 X 12 Double Deck Screen (500 TPH - EL JAY 1140)	4.82	1.62	0.11				
7 X 20 Screen Plant (500 TPH - Cedar Rapids TSH 7203-38)	4.82	1.62	0.11				
Bulk Loading	1.10	1.10	1.10				
Material Transfer (1-25)	7.67	2.52	0.71				
Pile Forming (1-4)	7.05	3.35	0.50				
Haul Roads	8.35	2.13	0.21				
2206 hp Gen-Set (Caterpillar 3512C)[(a)]	0.35	0.35	0.35	53.91	1.33	7.08	8.23
150 hp Equipment Heater Generator (Caterpillar D100P2)[(a)]	0.56	0.56	0.56	7.94	0.64	1.71	0.52
TOTAL	**42.60**	**16.80**	**4.31**	**61.85**	**1.97**	**8.79**	**8.76**

a. Inventory reflects enforceable limits on hours of operation to keep allowable emissions below the Title V threshold AND 80 tpy.
** hp = horsepower
$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less
VOC = volatile organic compounds.
lb = pounds
hr = hour

30 X 54 Jaw Crusher (500 TPH El Russ M2831)

Process Rate:	500	tons/hr			
Hours of operation:	8760	hr/yr			
PM Emissions (controlled):					
Emission Factor:	0.0012	lbs/ton	(AP-42 Table 11.19.2-2 8/2004)		
Calculations:	0.0012 lbs/ton * 500 tons/hr =			**0.60**	**lbs/hr**
	0.6 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**2.63**	**tons/yr**
PM-10 Emissions (controlled):					
Emission Factor:	0.00054	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00054 lbs/ton * 500 tons/hr =			**0.27**	**lbs/hr**
	0.27 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**1.18**	**tons/yr**
PM-2.5 Emissions (controlled):					
Emission Factor:	0.0001	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0001 lbs/ton * 500 tons/hr =			**0.05**	**lbs/hr**
	0.05 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**0.22**	**tons/yr**

60" Cone Crusher (500 TPH - Allis H-6000)

Process Rate:	500	tons/hr			
Hours of operation:	8760	hr/yr			
PM Emissions (controlled):					
Emission Factor:	0.0012	lbs/ton	(AP-42 Table 11.19.2-2 8/2004)		
Calculations:	0.0012 lbs/ton * 500 tons/hr =			**0.60**	**lbs/hr**
	0.6 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**2.63**	**tons/yr**
PM-10 Emissions (controlled):					
Emission Factor:	0.00054	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00054 lbs/ton * 500 tons/hr =			**0.27**	**lbs/hr**
	0.27 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**1.18**	**tons/yr**
PM-2.5 Emissions (controlled):					
Emission Factor:	0.0001	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0001 lbs/ton * 500 tons/hr =			**0.05**	**lbs/hr**
	0.05 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**0.22**	**tons/yr**

60" Cone Crusher (500 TPH - El Russ/Allis H-6000)

Process Rate:	500	tons/hr			
Hours of operation:	8760	hr/yr			
PM Emissions (controlled):					
Emission Factor:	0.0012	lbs/ton	(AP-42 Table 11.19.2-2 8/2004)		
Calculations:	0.0012 lbs/ton * 500 tons/hr =			**0.60**	**lbs/hr**
	0.6 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**2.63**	**tons/yr**
PM-10 Emissions (controlled):					
Emission Factor:	0.00054	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00054 lbs/ton * 500 tons/hr =			**0.27**	**lbs/hr**
	0.27 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**1.18**	**tons/yr**
PM-2.5 Emissions (controlled):					
Emission Factor:	0.0001	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0001 lbs/ton * 500 tons/hr =			**0.05**	**lbs/hr**
	0.05 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**0.22**	**tons/yr**

7 X 12 Double Deck Screen (500 TPH - EL JAY 1140)

Process Rate:	500	tons/hr			
Hours of operation:	8760	hr/yr			
PM Emissions (controlled):					
Emission Factor:	0.0022	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0022 lbs/ton * 500 tons/hr =			**1.10**	**lbs/hr**
	1.1 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**4.82**	**tons/yr**
PM-10 Emissions (controlled):					
Emission Factor:	0.00074	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00074 lbs/ton * 500 tons/hr =			**0.37**	**lbs/hr**
	0.37 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**1.62**	**tons/yr**

PM-2.5 Emissions (controlled):

Emission Factor:	0.00005	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00005 lbs/ton * 500 tons/hr =			**0.03**	**lbs/hr**
	0.025 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**0.11**	**tons/yr**

7 X 20 Screen Plant (500 TPH - Cedar Rapids TSH 7203-38)

Process Rate:	500	tons/hr			
Hours of operation:	8760	hr/yr	or	24	hr/day

PM Emissions (controlled):

Emission Factor:	0.0022	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0022 lbs/ton * 500 tons/hr =			**1.10**	**lbs/hr**
	1.1 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**4.82**	**tons/yr**

PM-10 Emissions (controlled):

Emission Factor:	0.00074	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00074 lbs/ton * 500 tons/hr =			**0.37**	**lbs/hr**
	0.37 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**1.62**	**tons/yr**

PM-2.5 Emissions (controlled):

Emission Factor:	0.00005	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00005 lbs/ton * 500 tons/hr =			**0.03**	**lbs/hr**
	0.025 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**0.11**	**tons/yr**

Bulk Loading

Process Rate:	500	tons/load			
Number of Loads	5	load/hr			
Hours of operation:	8760	hr/yr	or	24	hr/day

PM Emissions (controlled):

Emission Factor:	1.00E-04	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0001 lbs/ton * 500 tons/load * 5 load/hr =			**0.25**	**lbs/hr**
	0.25 lbs/hr * 8760 hr/yr * 0.0005 tons/lb =			**1.10**	**tons/yr**

PM-10 Emissions (controlled):

Emission Factor:	1.00E-04	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0001 lbs/ton * 500 tons/load * 5 load/hr =			**0.25**	**lbs/hr**
	0.25 lbs/hr * 8760 hr/yr * 0.0005 tons/lb =			**1.10**	**tons/yr**

PM-2.5 Emissions (controlled):

Emission Factor:	1.00E-04	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.0001 lbs/ton * 500 tons/load * 5 load/hr =			**0.25**	**lbs/hr**
	0.25 lbs/hr * 8760 hr/yr * 0.0005 tons/lb =			**1.10**	**tons/yr**

Material Transfer (1-25)

Process Rate:	500	tons/hr			
Number of Transfers	25	Transfers			
Hours of operation:	8760	hr/yr	or	24	hr/day

PM Emissions (controlled):

Emission Factor:	0.00014	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.00014 lbs/ton * 500 tons/hr * 25 Transfers =			**1.75**	**lbs/hr**
	1.75 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**7.67**	**tons/yr**

PM-10 Emissions (controlled):

Emission Factor:	4.60E-05	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.000046 lbs/ton * 500 tons/hr * 25 Transfers =			**0.58**	**lbs/hr**
	0.575 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**2.52**	**tons/yr**

PM-2.5 Emissions (controlled):

Emission Factor:	1.30E-05	lbs/ton	(AP-42 Table 11.19.2-2, 8/2004)		
Calculations:	0.000013 lbs/ton * 500 tons/hr * 25 Transfers =			**0.16**	**lbs/hr**
	0.1625 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =			**0.71**	**tons/yr**

Pile Forming (1-4)

Process Rate:	125	tons/hr
Number of Piles	4	Piles
Hours of operation:	8760	hr/yr

PM Emissions (controlled):

Emission Factor:	3.22E-03	lbs/ton	(AP-42 Section 13.2.4.3, 11/2006)		
Calculations:	0.00322 lbs/ton * 125 tons/hr * 4 Piles =			**1.61**	**lbs/hr**
	1.61 lbs/hr * 8760 hr/yr * 0.0005 tons/lb =			**7.05**	**tons/yr**

PM-10 Emissions (controlled):

Emission Factor:	1.53E-03	lbs/ton	(AP-42 Section 13.2.4.3, 11/2006)		
Calculations:	0.00153 lbs/ton * 125 tons/hr * 4 Piles =			**0.77**	**lbs/hr**
	0.765 lbs/hr * 8760 hr/yr * 0.0005 tons/lb =			**3.35**	**tons/yr**

PM-2.5 Emissions (controlled):

Emission Factor:	2.30E-04	lbs/ton	(AP-42 Section 13.2.4.3, 11/2006)		
Calculations:	0.00023 lbs/ton * 125 tons/hr * 4 Piles =			**0.12**	**lbs/hr**
	0.115 lbs/hr * 8760 hr/yr * 0.0005 tons/lb =			**0.50**	**tons/yr**

Haul Roads

Vehicle miles travelled (estimate): 5 VMT/day

Control Efficiency is included in Emission Factor

PM Emissions (controlled): (AP-42 Chapter 13.2.2, 11/2006)

Emission Factor (Rated Load Capacity <50 tons):	9.15	Lbs/VMT			
Calculations:	5 VMT/day * 9.15 Lbs/VMT =			**45.75**	**lb/day**
	45.75 lb/day * 365 days/yr * 0.0005 tons/lb =			**8.35**	**tons/yr**

PM-10 Emissions (controlled): (AP-42 Chapter 13.2.2, 11/2006)

Emission Factor (Rated Load Capacity <50 tons):	2.33	Lbs/VMT			
Calculations:	5 VMT/day * 2.33 Lbs/VMT =			**11.65**	**lb/day**
	11.65 lb/day * 365 days/yr * 0.0005 tons/lb =			**2.13**	**tons/yr**

PM-2.5 Emissions (controlled): (AP-42 Chapter 13.2.2, 11/2006)

Emission Factor (Rated Load Capacity <50 tons):	0.23	Lbs/VMT			
Calculations:	5 VMT/day * 0.23 Lbs/VMT =			**1.15**	**lb/day**
	1.15 lb/day * 365 days/yr * 0.0005 tons/lb =			**0.21**	**tons/yr**

2206 hp Gen-Set (Caterpillar 3512C)

	Rating =	2206	hp		
	Operating Hours=	3640	hr/yr		
NOx					
	Emission Factor =	6.09	g/hp-hr	(Manufacturer)	
	Calculations:	6.09 g/hp-hr * 2206 hp * 0.002205 lb/g =		**29.62**	**lb/hr**
		29.6231607 lb/hr * 3640 hr/yr * 0.0005 tons/lb =		**53.91**	**tons/yr**
CO					
	Emission Factor=	0.80	g/hp-hr	(Manufacturer)	
	Calculations:	0.8 g/hp-hr * 2206 hp * 0.002205 lb/g =		**3.89**	**lb/hr**
		3.891384 lb/hr * 3640 hr/yr * 0.0005 tons/lb =		**7.08**	**tons/yr**
SOx					
	Emission Factor=	2.05E-03	lb/hp-hr	(AP 42, Table 3.3-1, 10/96)	
	Calculations:	0.00205 lb/hp-hr * 2206 hp =		**4.52**	**lb/hr**
		4.5223 lb/hr * 3640 hr/yr * 0.0005 tons/lb =		**8.23**	**tons/yr**
PM10					
	Emission Factor=	0.04	g/hp-hr		Manufacturer
	Calculations:	0.04 g/hp-hr * 2206 hp * 0.002205 lb/g =		**0.19**	**lb/hr**
		0.1945692 lb/hr * 3640 hr/yr * 0.0005 tons/lb =		**0.35**	**tons/yr**
PM2.5					
	Emission Factor=	0.04	g/hp-hr		Manufacturer
	Calculations:	0.04 g/hp-hr * 2206 hp * 0.002205 lb/g =		**0.19**	**lb/hr**
		0.1945692 lb/hr * 3640 hr/yr * 0.0005 tons/lb =		**0.35**	**tons/yr**
VOC					
	Emission Factor=	0.15	g/hp-hr		Manufacturer
	Calculations =	0.15 g/hp-hr * 2206 hp * 0.002205 lb/g =		**0.73**	**lb/hr**
		0.7296345 lb/hr * 3640 hr/yr * 0.0005 tons/lb =		**1.33**	**tons/yr**

150 hp Equipment Heater Generator (Caterpillar D100P2)

	Rating =	100	hp		
	Operating Hours=	5120	hr/yr		
NOx					
	Emission Factor =	0.031	lb/hp-hr	(AP 42, Table 3.3-1, 10/96)	
	Calculations:	0.031 lb/hp-hr * 100 hp =		**3.10**	**lb/hr**
		3.1 lb/hr * 5120 hr/yr * 0.0005 tons/lb =		**7.94**	**tons/yr**
CO					
	Emission Factor =	6.68E-03	lb/hp-hr	(AP 42, Table 3.3-1, 10/96)	
	Calculations:	0.00668 lb/hp-hr * 100 hp =		**0.67**	**lb/hr**
		0.668 lb/hr * 5120 hr/yr * 0.0005 tons/lb =		**1.71**	**tons/yr**

SOx

Emission Factor =	2.05E-03 lb/hp-hr	(AP 42, Table 3.3-1, 10/96)	
Calculations:	0.00205 lb/hp-hr * 100 hp =	**0.21**	**lb/hr**
	0.205 lb/hr * 5120 hr/yr * 0.0005 tons/lb =	**0.52**	**tons/yr**

PM10

Emission Factor =	2.20E-03 lb/hp-hr	(AP 42, Table 3.3-1, 10/96)	
Calculations:	0.0022 lb/hp-hr * 100 hp =	**0.22**	**lb/hr**
	0.22 lb/hr * 5120 hr/yr * 0.0005 tons/lb =	**0.56**	**tons/yr**

VOC

Emission Factor =	2.51E-03 lb/hp-hr	(AP 42, Table 3.3-1, 10/96)	
Calculations:	0.00251 lb/hp-hr * 100 hp =	**0.25**	**lb/hr**
	0.251 lb/hr * 5120 hr/yr * 0.0005 tons/lb =	**0.64**	**tons/yr**

V. Existing Air Quality

The proposed location of this portable operation is to be located in an area designated as attainment/unclassifiable for all criteria pollutants.

VI. Air Quality Impacts

The Department modeled the engines to determine impacts relative to the 1-hour nitrogen dioxide (NO_2) National Ambient Air Quality Standards (NAAQS). The Department assumed that 75% of the NO_x emissions are NO_2. A background NO_2 concentration of 40 micrograms per cubic meter (ug/m^3) was assumed.

The Department determined, based on the NO_x emissions limit and stack heights required, that the impact from this permitting action would be expected to be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

The Department determined, based on ambient air modeling, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?

YES	NO	
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

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
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Jim Gilman Excavating, Inc.

Montana Air Quality Permit number: 2545-06

Preliminary Determination Issued: 3/16/2011
Department Decision Issued:
Permit Final:

1. *Legal Description of Site*: Section 25, Township 4 North, Range 10 West, Deer Lodge County

2. *Description of Project:* Gilman proposes to use a crushing/screening plant, as described above, to crush and sort sand and gravel materials for sale for use in construction operations. For a typical operational setup, the raw material is processed through the jaw and hydrocone crushers. The processed material is then screened by means of the 3-deck screens and either stockpiled for use or conveyed back through the crushing/screening operation.

3. *Objectives of Project*: The objective of this project is to update permit information regarding the engines used to power the electrical generators operated under the permit pursuant to the Administrative Order on Consent from Docket No AQ-10-04 (FID 1891). The proposed engines include a Tier 2, 2,206 hp compression ignition engine to power the primary generator for the facility and a 150 hp compression ignition engine to power a generator supplying power to equipment heaters. Gilman also requested hours of operation limits be placed on the engines to maintain synthetic minor status relative to the Title V Major Stationary Source threshold.

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 Gilman 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 MAQP #2545-06.

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

The proposed permitting action would not impact terrestrial and aquatic life and habitats because the plant is an existing facility and no substantive increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

B. Water Quality, Quantity and Distribution

The proposed permitting action would not impact water quality, quantity and distribution because the plant is an existing facility and no substantive increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

C. Geology and Soil Quality, Stability and Moisture

The proposed permitting action would not impact geology and soil quality, stability and moisture because the plant is an existing facility and no substantive increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

D. Vegetation Cover, Quantity, and Quality

The proposed permitting action would not impact vegetation cover, quantity, and quality because the plant is an existing facility and no substantive increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

E. Aesthetics

The proposed permitting action would not impact aesthetics because the plant is an existing facility and no substantive increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

F. Air Quality

The proposed permitting action would not impact air quality because the plant is an existing facility and no substantive increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The proposed permitting action would not impact unique endangered, fragile, or limited environmental resources because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

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

The proposed permitting action would not impact demands on environmental resource of water, air and energy because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

I. Historical and Archaeological Sites

The proposed permitting action would not impact historical and archaeological sites because the plant is an existing facility in an existing disturbed area (gravel pit) and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

J. Cumulative and Secondary Impacts

The proposed permitting action would not have cumulative and secondary impacts because the asphalt batch plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

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 proposed permitting action would not impact social structures and mores because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

B. Cultural Uniqueness and Diversity

The proposed permitting action would not impact cultural uniqueness and diversity because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

C. Local and State Tax Base and Tax Revenue

The proposed permitting action would not impact local and state tax base and tax revenue because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

D. Agricultural or Industrial Production

The proposed permitting action would not impact agricultural or industrial production because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

E. Human Health

The proposed permitting action would not impact human health because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed permitting action would not impact access to and quality of recreational and wilderness activities because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

G. Quantity and Distribution of Employment

The proposed permitting action would not impact quantity and distribution of employment because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

H. Distribution of Population

The proposed permitting action would not impact distribution of population because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

I. Demands for Government Services

The proposed permitting action would have minor impacts on demands for government services because issuance of, and assuring compliance with, this permit requires government action and resources.

J. Industrial and Commercial Activity

The proposed permitting action would not impact industrial and commercial activity because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

K. Locally Adopted Environmental Plans and Goals

The proposed permitting action would not impact locally adopted environmental plans and goals because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

L. Cumulative and Secondary Impacts

The proposed permitting action would not have cumulative and secondary impacts because the plant is an existing facility and no increases or decreases in operational schedule, new construction, new discharges or new emissions are proposed by this permitting action.

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

The current permitting action is for the construction and operation of nonmetallic mineral processing plant. MAQP #2545-06 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: P. Skubinna
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