Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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September 2, 2008

Shane Parrow
Elkhorn Goldfields, Inc.
P.O. Box 41
Boulder, MT 59632

Dear Mr. Parrow:

Air Quality Permit #4237-00 is deemed final as of August 30, 2008, by the Department of Environmental Quality (Department). This permit is for an underground gold mine. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Julie Merkel
Air Quality Specialist
Air Resources Management Bureau
(406) 444-3626

VW:JAM
Enclosures

Montana Department of Environmental Quality
Permitting and Compliance Division

Air Quality Permit #4237-00

Elkhorn Goldfields, Inc.
P.O. Box 41
Boulder, MT 59632

August 30, 2008

MONTANA AIR QUALITY PERMIT

Issued To: Elkhorn Goldfields, Inc.
P.O. Box 41
Boulder, MT 59632

Permit: #4237-00
Application Complete: 06/19/08
Preliminary Determination Issued: 07/29/08
Department's Decision Issued: 08/14/08
Permit Final: 08/30/08
AFS #: 043-0005

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

SECTION I: Permitted Facilities

A. Permitted Equipment

EGI submitted an application to the Department of Environmental Quality – Air Resources Management Bureau (Department) to operate an underground gold mining and ore processing operation. The proposed mine includes ore and waste removal, handling and storage activities, primary and secondary crushing, screening, hauling, and load out activities, and is referred to as the Golden Dream Mine Project. A complete list of permitted equipment is in Section I.A of the permit analysis.

B. Plant Location

EGI's Elkhorn Mine is located approximately 19 miles east of Boulder, Montana, north of the old mining town of Elkhorn, Montana. The mine is located in portions of Sections 10, 11, 14, and 15, in Township 6 North, Range 3 West, in Jefferson County, Montana. The proposed project encompasses a 383.5 acre permitted mining site, with mountainous and timbered terrain and limited access in an area of extensive mining and exploration.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. The maximum ore production (measured as throughput at the primary crusher) shall be limited to 1,000 tons during any 24-hour rolling period (ARM 17.8.749).

2. The maximum ore production (measured as throughput at the primary crusher) shall be limited to 365,000 tons during any rolling 12-month time period (ARM 17.8.749).

3. The maximum waste rock production shall be limited to 126,562 tons during the development phase (ARM 17.8.749).

4. Until the underground electric transmission line is operational at the mine site, EGI shall not operate more than one diesel engine/generator at any given time and the maximum rated design capacity of the diesel engine/generator shall not exceed 1,105 horsepower (hp) (ARM 17.8.749)

5. EGI shall have no more than one emergency diesel engine/generator on site at any given time, and the maximum rated design capacity of the diesel engine/generator shall not exceed 338 hp. The emergency engine/generator shall not be operated more than 500 hours per year (hr/yr) (ARM 17.8.749).

6. EGI shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

7. EGI shall limit all other fugitive emissions to 20% opacity averaged over 6 consecutive minutes (ARM 17.8.749).

8. EGI 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).

9. EGI shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.7 (ARM 17.8.749).

10. Water shall be available and used, as necessary, to maintain compliance with the opacity limitations (ARM 17.8.749 and ARM 17.8.752).

11. EGI shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, and 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

12. EGI shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in, and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engines (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. 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 of Environmental Quality (Department) may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. EGI shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in 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 to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

a. Amount of ore and waste handled.

b. An estimate of vehicle miles traveled on on-site access roads.

c. Other emission related information the Department may request (ARM 17.8.749).

2. EGI 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).

3. All records compiled in accordance with this permit must be maintained by EGI 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).

4. EGI shall document, daily, the amount of ore and waste rock production. Each day, EGI shall total the ore production for the previous 24 hour period. The daily information will be used to verify compliance with the rolling 24-hour limitation in Section II.A.1. The information shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. EGI shall document, by month, the amount of ore production. By the 25th day of each month, EGI shall total the ore production for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

1. EGI shall supply the Department the following notification (ARM 17.8.749).

a. Date when the underground electric transmission line to the mine is operational postmarked within 15 days after such date.

b. Anticipated date of initial start-up of operations postmarked not more than 60 days nor less than 30 days prior to such date.

c. Actual date of initial start-up of operations postmarked within 15 days of such date (ARM 17.8.340, 40 CFR Part 60).

SECTION III: General Conditions

A. Inspection – EGI shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

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

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

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action 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 the Department at the location of the 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 EGI may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must begin within 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).

Permit Analysis
Elkhorn Goldfields, Inc.
Permit #4237-00

I. Introduction/Process Description

A. Permitted Equipment

Elkhorn Goldfields, Inc. (EGI) owns and operates an underground gold mine. Equipment at the mine includes a diesel-fired generator/engine (up to 1,105 horsepower (hp)), an emergency diesel-fired generator/engine (up to 338 hp), a primary jaw crusher, secondary cone crusher and a shorthead cone crusher, two screens and associated equipment. The facility is located 19 miles east of Boulder, Montana, north of the old mining town of Elkhorn, in portions of Sections 10, 11, 14, and 15 in Township 6 North, Range 3 West. The proposed project encompasses an area of 382.5 acres, and is known as the Golden Dream Mine Project, and is also known as the Elkhorn Project.

B. Source Description

The development of the Elkhorn Project has been divided into three phases by EGI for the purpose of economic efficiency.

Phase I consisted of exploration and bulk sampling to define the ore body for the Golden Dream Project (aka the Elkhorn Project). Phase I culminated in the April, 2007, application for a mine operating permit for the Elkhorn Project.

Phase II consists of the underground mine development. In this phase EGI will begin construction of the underground portals and access tunnel, known as a decline. The underground portal area will house the maintenance repair facilities, provide access to the underground mine decline, and include the main ventilation shaft and emergency exit. Development waste rock will be used to backfill and reclaim the existing Mount Heagan Pit. Due to the current condition and capacity of the existing electrical utility system, Phase II will include operation of a diesel power engine until the summer of 2009 when an upgrade to the existing electrical service is scheduled.

Phase III production will commence when the development of the decline is sufficient to access the gold ore-bearing rock. The start of production will depend on the speed of development but is expected to begin six to eight months after Phase II. Phase III will consist of continued underground mine development and production of 500 to 1,000 tons per day of gold ore. Waste rock generated in Phase III will be used to finish reclamation of the Mount Heagan Pit and to backfill openings underground.

Under Phases II and III, the mine will operate 24 hours per day, seven days per week with a total ore production of up to 365,000 tons a year. Standard mining methods for good rock conditions will be used to excavate the ore and waste. As is typical in underground operations, most of the waste rock will be excavated during pre-development, followed by ore mining with little waste production. Rock will be trucked from the underground loadout points to the ore stockpile and rock pile.

Principal access to the underground mine is a spiral type decline which originates at the portal area (elevation 6,605 feet) and will ultimately extend about 5,280 linear feet at an average grade of about -15% to an elevation of 4,800 feet. The main portal will provide access to the ore bodies while the ventilation decline will provide fresh air and a secondary escapeway to the miners. The proposed mining plan is to use two extraction methods to remove ore. A cut-and-fill method would be used in the oxide portion of the ore body and a sub-level stoping method would be used in the sulfide ore bodies.

During Phase III, a truck loadout facility will be located adjacent to the run-of-mine stockpile. Truck hauling for shipment of ore to Montana Tunnels or another suitable contract milling facility will use approximately 10 trucks in a circuit. Haul trucks will be loaded using a front-end loader. Each truck is capable of hauling about 30 tons of ore per load and will run 5 days per week.

Run-of-mine ore will be unloaded from underground haul trucks into the crushing plant dump pocket. The crushing facility will be located approximately three road miles from the patio and mine portal areas. The crushing plant is a conventional two-stage crushing system consisting of a hopper with grizzly, primary jaw crusher, and secondary crushing stage. Oversize material screened by the grizzly will be removed and subjected to secondary blasting or further reduction with a rock breaker. Undersize material passing through the grizzly will drop into the 20-ton lined ore pocket. Ore recovered from the ore pocket will be combined with jaw crusher ore, and will be transported via conveyor to the secondary or cone crusher where further size reduction will take place. Ore will be supplied to the crusher at a maximum rate of approximately 42 tons per hour for a period of 24 hours per day.

II. Applicable Rules and Regulations

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

   EGI 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 the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

EGI 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, EGI 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, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank 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 and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). EGI 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 LL – Standard of Performance for Metallic Mineral Processing Plants. This subpart does not apply to the proposed mineral processing plant because at no time will metal concentrations be increased above the natural ore concentration on site.

c. 40 CFR 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. This subpart applies to nonmetallic mineral processing plants that commence construction after August 31, 1983. Subpart OOO applies to the ore storage and handling system at the facility because the system will crush or grind crushed or broken stone the majority of which is a nonmetallic mineral.

d. 40 CFR 60, Subpart IIII - Standard of Performance for Stationary Compression Ignition Internal Combustion Engines. This subpart applies to the 1,105 hp engine and the 338 hp emergency generator/engine because the proposed engines are CI ICE engines manufactured after April 1, 2005.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:

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

b. 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants From Reciprocating Internal Combustion Engines. As an area source, any diesel RICE engine operated by EGI that is new or reconstructed after June 12, 2006, will be subject to this MACT standard if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year.

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. EGI 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 prorate 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 air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. EGI has a PTE greater than 25 tons per year of oxides of nitrogen (NO_x), Carbon Monoxide (CO), and Volatile Organic Compounds (VOCs); 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. EGI 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. EGI submitted an affidavit of publication of public notice for the June 25, 2008, issue of the *Boulder Monitor*, a newspaper of general circulation in the Town of Boulder in Jefferson 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 EGI of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

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

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. 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. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

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

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 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 source having:

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

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

c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (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 #4237-00 for EGI, the following conclusions were made:

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

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

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

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

   f. This source is not a Title IV affected source, or a solid waste combustion unit.

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

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

III. BACT Determination

A BACT determination is required for each new or altered source. EGI 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 BACT analysis was submitted by EGI in Permit Application #4237-00, addressing some available methods of controlling emissions from the sources that would be used at the mine. The Department reviewed these methods, as well as previous BACT determinations in order to make the following BACT determination.

Diesel Generator BACT Analysis

The control options required for the diesel generators/engines are similar to other recently permitted similar sources and are capable of achieving the appropriate emission standards. Nitrogen oxides (NO_X) emissions were analyzed, as NO_X is the primary pollutant emitted from this source.

The following options were examined during the NO_X BACT analysis for the diesel engine/generator:

1. Combustion modifications, such as injection timing retard, preignition chamber combustion, air-to-fuel ratio adjustment. This type of control technology helps reduce NO_x formation in the combustion zone.

2. Selective Catalytic Reduction (SCR), which is a post-combustion gas treatment technique that uses a catalyst to reduce NO and NO_2 to molecular nitrogen, water and oxygen (O_2). Ammonia (NH_3) is commonly used as the reducing agent.

3. Non-selective Catalytic Reduction (NSCR) uses a three-way catalyst to promote the decomposition of NO_x to nitrogen and water. Exhaust carbon monoxide and hydrocarbons are simultaneously oxidized to carbon dioxide (CO_2) and water in this process. NSCR is applicable only to engines with exhaust O_2 concentrations below approximately 1% (such as rich-burn natural gas-fired engines); and

4. Proper design and operation can reduce NO_x by controlling the combustion temperature, residence time, and available oxygen. Normal combustion practices involve maximizing the heating efficiency of the fuel in an effort to minimize fuel usage. Increasing the efficiency of fuel combustion also minimizes NO_x formation.

Technical Feasibility

EGI has found that NSCR is only applicable to rich-burn engines and diesel-fueled engines can not be operated as fuel-rich. Consequently, NSCR is technically infeasible for the diesel engines.

SCR is also considered technically infeasible for the emergency engine. The engine will only be operated in relatively small increments during emergencies, back-up, or monthly inspections. An SCR unit requires that the combustion unit operate on a continuous basis for optimal NO_x control. SCR is technically feasible for the primary generator.

Environmental Feasibility

The primary environmental concern from any of the proposed options is the on-site storage and usage of urea for an SCR system. Although this type of system is in operation at many facilities, it is an additional environmental liability.

Economic Feasibility

EGI conducted an economic analysis using a slightly larger generator. For the purpose of this analysis, a control efficiency of 80 percent was assumed to account for efficiency reductions due to the potential low-temperature exhaust conditions. The system is estimated to cost approximately $100,000 to purchase and install. Urea would cost approximately $190,000 per year. Using these values, and assuming a 4.2-year investment life and a seven percent required rate of return, the cost efficiency of this technology is estimated to be $4,700 per ton of NO_x removed. EGI believes this cost represents an adverse economic impact that is disproportionately high relative to control costs required of similar facilities. It is there fore eliminated from consideration as BACT for this application.

EGI proposes BACT for the 1,105 hp diesel-fired engine and the 338 hp emergency engine/generator as proper design and combustion with not add-on controls to meet the new NSPS emission limits. The proposed NO_x BACT conforms with previous BACT determinations made by the Department for diesel-fired engines.

The Department determined that additional controls for particulate matter (PM), PM_{10}, volatile organic compounds (VOC), carbon monoxide (CO), and oxides of sulfur (SO_x) are technically or economically infeasible. Therefore, the Department determined that proper operation and maintenance with no additional controls for PM, PM_{10}, VOC, CO, and SO_x would constitute BACT for the diesel generators/engines.

Ore Material Handling Systems BACT Analysis

The Elkhorn project will include systems for transporting, transferring, and potentially crushing broken rock. Emissions associated with these activities occur as a result of transferring ore from one system to another. These transfers, referred to as "drop transfers" occur, for example, when material is transferred from one conveyor to another or from a loader to a load-out truck.

Emissions from these sources consist of PM and PM_{10}. The amount of condensable species in the PM_{10} is inconsequential, so filterable PM_{10} effectively equals total PM_{10}.

The available technologies considered for controlling PM/PM_{10} emissions from the proposed new material handling sources are as follows:

1. Fabric Filter Baghouses direct air flow through tightly woven or felted fabric, causing particulate matter in the flow to be collected on the fabric by sieving and other mechanisms. As particulate matter collects on the filter, collection efficiency increases while pressure drop through the system increases. Bags are intermittently cleaned by shaking the bag, pulsing air through the bag, or temporarily reversing the airflow direction. Particulate-laden air must be able to be collected and ducted to the baghouse.

2. An Electrostatic Precipitator (ESP) uses electrical forces to move entrained particles onto a collection surface. To remove dust cake from the collection surface, the collection surface is periodically "rapped" by a variety of means to dislocate the particulate, which drops down into a hopper. Particulate-laden air must be able to be collected and ducted to the ESP.

3. Wet Dust Suppression Including Retained or Inherent Moisture cause emissions to be reduced through agglomerate formation by combining small dust particles with larger aggregate or with liquid droplets. Moisture retained from water sprays upstream in the process or moisture inherent in the material provides a similar emission reducing effect.

4. Enclosure technology employs structures or underground placement to shelter material from wind entrainment. Enclosures can either fully or partially surround the source.

5. Best Operational Practices (BOPs) include a variety of techniques such as reducing transfer point drop heights, limiting disturbance frequency of storage piles, and making use of natural hygroscopic properties of lime and limestone.

6. No Add-on Control is the base case for proposed new sources.

Fabric filter baghouse dust collector control is technically feasible for the proposed material transfer sources and crusher system. However, controlling a significant number of sources with a single baghouse would require extensive lengths of ducting. In that case, multiple baghouses would be required, and the cost effectiveness of this option would rise significantly, deeming the fabric filter baghouse control economically infeasible for the proposed project.

Although ESP units are theoretically capable of controlling particulate emissions at levels similar to baghouses, they are generally not feasible for the applications considered here. ESP's are considered technically infeasible because they are usually not suited for use on processes which are highly variable, since frequent changes in operating conditions are likely to degrade ESP performance.

Wet dust suppression works by causing fine particles to agglomerate through the introduction of moisture into the material stream. The agglomerated particles resist entrainment by wind. The effects of wet suppression can be achieved by high moisture levels inherent in the material. Because use of wet suppression can achieve a control efficiency of approximately 90% or greater, wet dust suppression was evaluated for the proposed new sources.

For the proposed material transfer particulate sources, wet dust suppression or suppression due to inherent moisture has been deemed technically and economically feasible. Because wet dust suppression provides the highest level of control of the remaining alternatives (enclosures, BOPs, and no additional control), no further analyses are necessary. The Department determined that EGI's proposal of wet dust suppression and/or inherent moisture constitutes BACT for the crusher system and transfer sources.

IV. Emission Inventory

Surface Emissions

Power Generation	**PM_{10} (tpy)**	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Mine Generator (Tier II)	0.32	0.32	41.61	1.39	1.96	0.32
Emergency Mine Generator	0.02	0.02	0.50	0.43	0.26	0.50

Vehicle Traffic	**PM_{10} (tpy)**	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Fugitive Surface Road Dust	11.71	1.17				

Development of Surface Pile	**PM_{10} (tpy)**	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Mount Heagan Pit Backfill Pile	0.13	0.13				

Ore Crushing and Screening	**PM_{10} (tpy)**	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Truck Unloading	0.00	0.00				
Ore Handling and Loading	0.00	0.00				
Vibrating Grizzly	0.79	0.79				
Primary Jaw Crusher	0.82	0.82				
Secondary Cone Crusher	0.22	0.22				
Shorthead Cone Crusher	0.22	0.22				
Conveyors (9)	0.90	0.90				
Screens (2)	0.79	0.79				
Ore Pile	0.03	0.03				
Surface Emissions Totals	**15.96**	**5.43**	**42.11**	**1.82**	**2.22**	**0.82**

Underground Emissions

Development Phase	**PM_{10} (tpy)**	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Development Vehicle Engines	0.70	0.70	29.49	12.05	6.25	18.12
Development Underground Roads	0.35	0.04				
Drilling and Blasting	1.56	0.23				
Truck Loading	0.00	0.00				
Production Phase	**PM_{10} (tpy)**	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Production Vehicle Engines	0.80	0.80	23.59	13.28	6.58	14.34
Production Underground Roads	1.23	0.12				
Drilling and Blasting	1.56	0.23				
Truck loading	0.00	0.00				
Underground Emissions Totals	**6.21**	**2.12**	**53.08**	**25.33**	**12.84**	**32.46**

	PM_{10} (tpy)	**$PM_{2.5}$ (tpy)**	**NO_x (tpy)**	**CO (tpy)**	**SO_x (tpy)**	**VOC (tpy)**
Development Phase	3.10	1.40	71/6	13.9	8.5	18.9
Production Phase	19.1	6.1	23.6	13.3	6.6	14.3
TOTALS (tpy)	**22.2**	**7.6**	**95.2**	**27.1**	**15.1**	**33.3**

A complete emissions inventory is on file with the Department.

V. Ambient Air Impact Analysis

In the view of the Department, the amount of controlled emissions generated by this project will not cause concentrations of any regulated pollutant in the ambient air that exceed any set ambient standard. Any potential impacts will be minimized by the conditions and limitations established in Permit #4237-00.

VI. 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?
		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 pubic 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.

VII. 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, Montana 59620
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FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Elkhorn Goldfields Inc.

Air Quality Permit Number: 4237-00

Preliminary Determination Issued: July 29, 2008
Department Decision Issued: August 14, 2008
Permit Final: August 30, 2008

1. *Legal Description of Site*: Elkhorn Goldfields Inc. submitted a Montana Air Quality Permit (MAQP) application for the Golden Dream Mine Project (aka Elkhorn Project) located 19 miles east of Boulder, Montana. The project would be located in Jefferson County, north of the old mining town of Elkhorn, in portions of Sections 10, 11, 14, and 15 in Township 6 North, Range 3 West, and would encompass a proposed total permit area of 382.5 acres.

2. *Description of Project*: The mine would be developed on privately held claims and on unpatented mining claims within the Deer Lodge National Forest. Surface mine facilities would be located on privately held claims. Approximately 30 acres of the proposed 382.5 acres would be disturbed.

3. *Objectives of Project*: The purpose of this project is to mine gold ore bodies located by exploration drilling to provide revenue for the company. The mine would employ up to 70 employees.

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 EGI 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 #4237-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

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

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

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

A. Terrestrial and Aquatic Life and Habitats

Wildlife evaluations of the Golden Dream Mine Project site identified logging and grazing impacts as having reduced the availability of habitat for deer and elk in the project area since a 1995 study conducted by Western Technology and Engineering, Inc. (WESTECH). The proposed mine area was examined for suitable habitat and presence of bats. No evidence of bats or roosts was found. Though more recent studies in the Elkhorn Mountains have identified bats at lower elevations, no bats have been located at the elevation of the proposed mine disturbance. Potential habitat for: gray wolf, grizzly bear, Townsends Big Ear Bat, Western Toad and the Olive sided Flycatcher exists within 10 miles of the project area;, none of these species has been observed in the 1995 or 2006 studies of the proposed mine site. Grizzly bear and gray wolf would likely only occur as transients in the area, no known sightings of wolves or grizzly bears have been recorded in the area by the Montana natural Heritage Program. It is possible that Canadian lynx are present at least as transients in the Elkhorn Mountains but the habitats in and adjacent to the proposed project are not preferred. However, the probability of lynx use of the proposed permit area is considered to be low. No threatened or endangered species have been found on or near the proposed mine site. The Department believes only minor impacts would occur from the proposed project due to the relatively small amount of pollutants that would be emitted, dispersion characteristics of the pollutants and the atmosphere, and conditions placed in Permit #4237-00, including, but not limited to BACT requirements discussed in Section V of the permit analysis.

B. Water Quality, Quantity and Distribution

Water would be used, as necessary, for dust suppression on roads and on emissions from the crushing equipment. No surface water or ground water problems are expected as a result of using water for dust suppression. Historic mining, grazing, logging, and wildfires in the area of the proposed project have resulted in some surface disturbance, with associated increased erosion and sedimentation to some of the drainages. EGI would control runoff from disturbed

areas in accordance with a storm water permit from the Department and thereafter would not add sediment to area drainages. The overall effects to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability and Moisture

Disturbances by the permitted EGI exploration plan have already occurred on 6.9 acres. Reclamation of these disturbances would occur as part of the Metal Mine Reclamation Act (MMRA) Exploration License #00617 requirements. Soil salvage and proper reclamation would mitigate proposed disturbances. Over the short term, the cumulative impacts to area soils would be an increase in disturbances to soils already affected by past mining, grazing, wildfire, and timber harvest. However, due to the relatively small size of the project, and conditions contained in Permit #4237-00, impacts to geology and soil quality, stability and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

Vegetation is predominantly coniferous forest with Douglas-fir, Subalpine fir, or Lodgepole pine in the forested areas. Deciduous forest, primarily cottonwood or aspen, is found along drainages at lower elevations. Merchantable timber on the project area has been logged. Vegetation on less than 30 acres would be disturbed as a result of the proposed project. There would also be secondary impacts to vegetation from increased road dust and an increase in weed infestations due to disturbance. Dust control would be implemented as part of Permit #4237-00. Disturbed areas would be reseeded with the approved seed mix and monitored for reclamation success. Areas of reclamation that do not establish vegetation would be reseeded. Overall, impacts to vegetation cover, quantity, and quality would be minor.

E. Aesthetics

The proposed project would result in the construction and operation of an underground gold mine on a site formerly used for livestock grazing, so there would be potential visual effects. However, the effects would be mitigated by the measures required as part of their preliminary approval of the permit to operate. There would be aesthetic effects due to noise and dust from increased truck traffic. However, there would be requirements in the proposed air quality permit, to use water and spray bars that would mitigate the effects. The proposed air quality permit would contain a requirement to water and spray bars that would mitigate the effects. The proposed air quality permit would contain a requirement to water or chemically treat the mine site roads to minimize reentrainment of road dust. Any disturbed land would be reclaimed on an ongoing basis. Therefore, the effects on aesthetics would be minor.

F. Air Quality

The area surrounding the proposed project is predominantly used for grazing purposed. The area is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants. The Department believes that concentrations of the criteria pollutants in the area are at or near background levels and well below any NAAQS levels. Emissions of air pollutants would occur as a result of the current permit action. Air quality Permit #4237-00 would contain conditions limiting ore throughput, opacity, diesel generator operations and require, as necessary, the use of water, chemical dust suppressants, or water spray bars to control dust from vehicle traffic and process equipment. If the facility operates in compliance with all applicable permit requirements, then the effects would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The development of the Elkhorn Project would impact the unique endangered, fragile, or limited environmental resources because emissions of PM_{10}, NO_x, CO, VOCs and SO_x would increase in the area because of the operation of the facility. However, the Department believes that any impacts would be minor due to the relatively small amount of the above listed pollutants emitted, dispersion characteristics of the pollutants and the atmosphere, and conditions placed in Permit #4237-00, including, but not limited to, BACT requirements discussed in Section V of the permit analysis for this permit.

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

The installation and operation of the proposed diesel-fired engines would occur until the electrical power (energy) could be supplied for the mine. Any impact on the environmental resource of energy in the area would be minor. In addition the proposed project would not impact the demand for the environmental resource of water in the area as no water would be used to facility the proposed engines. Further, an increase in air pollution would result from the proposed project; however, the Department believes that any impacts would be minor due to the relatively small amount of the above listed pollutants emitted, dispersion characteristics of the pollutants and the atmosphere, and conditions placed in Permit #4237-00, including, but not limited to, BACT requirements discussed in Section V of the permit analysis for this permit.

I. Historical and Archaeological Sites

Between August 8 and August 29, 1994, Western Cultural Resource Management performed a reconnaissance survey of approximately 2,850 acres for the original Elkhorn Project, near the Elkhorn town site. An additional cultural survey was performed in 1996 by GCM services Inc. These surveys were intended to provide a comprehensive picture of the cultural resources present within the proposed Elkhorn Project area of 4,100 acres, including the area of the proposed projects. Several historic, prehistoric, and archaeological sites were identified within the surveys. However, only the Sourdough Complex site was considered eligible for listing on the national Register of Historic Places. Based on a review of the cultural studies and the proposed disturbance of the Elkhorn Project, this site would not be impacted by the proposed project.

Historical areas of concern would remain in place during the mine life and would not be disturbed. No archaeological sites have been found to date on the mine site's private grounds. Upon discovery of any archaeological items, all activities in the area of the archaeological items would stop until reviewed by SHPO. Overall, there would be minor, if any impacts on historical and archaeological sites within the proposed project.

J. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from the proposed installation and operation of the diesel-fired engines would result in minor impacts to the physical and biological environment in the immediate area because emissions of PM_{10}, NO_x, CO, VOCs and SO_x would increase from the Elkhorn Project as a result of operating the proposed diesel-fired engines. Air pollution from the facility would be controlled by Department-determined BACT, as discussed in Section V of the permit analysis, and conditions in Permit #4237-00. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in Permit #4237-00; therefore, cumulative and secondary impacts would be minor.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

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

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

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity
C. Local and State Tax Base and Tax Revenue

The proposed project would cause minor effects to the above-listed economic and social attributes of the area of operation because the proposed project would involve the employment of up to 70 people, would increase potential industrial production at the existing mine, and would slightly change the existing industrial nature of the site and the surrounding area.

D. Agricultural or Industrial Production

The proposed project would disturb a very small amount of grazing land. The potential effects on any agricultural land or practices would be very minor, if any. The project would result in a small increase in local industrial production. Therefore, the overall effects on agricultural or industrial production would be minor.

E. Human Health

There would be minor effects on human health due to the slight increase in emissions of air pollutants. However, Permit #4237-00 incorporates conditions to ensure that the facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. In addition the project would occur in a remote area with limited population; therefore, effects on human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The Elkhorn Mountains offer a diverse recreational opportunity for public use. Hunting, fishing, sightseeing, hiking, biking, snowmobiling, four-wheeling and other recreational driving, and cross country skiing are all available recreational opportunities within the Elkhorn

Mountains. The proposed project is located on privately held claims and would be fenced and signed. Therefore, the proposed Elkhorn Project would have minor, if any, effect on any access to and quality of recreational and wilderness activities.

G. Quantity and Distribution of Employment

H. Distribution of Population

There would be minor effect on employment in the area and minor, if any, effect on the distribution of population because the facility would employ up to 70 full-time employees at full production.

I. Demands for Government Services

Demands on government services from this facility would be minor. Minor increases may be seen in truck traffic on existing roads in the area while the facility is operating. The acquisition of the appropriate permits by the facility would also require minor services from the government.

J. Industrial and Commercial Activity

Operation of the mine would result in a minor increase in the industrial activity in the area. The operation of the mine would create some additional industrial activity in the area. However, the Department believes the impacts would be minor because of the relatively small size of the project.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social environment in the immediate area. As previously stated, the proposed permit would result in a slight increase in employment in the area, and a slight increase in industrial process in the area. The Department believes that EGI would be expected to operate in compliance with all applicable rules and regulations as outlined in Permit #4237-00.

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 construction and operation of the Elkhorn Project. Permit #4237-00 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: *Julie Merkel*
Date: 07/17/08