Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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October 23, 2008

Chris Johnson
Glacier Gold LLC
P.O. Box 260
Olney, MT 59927

Dear Mr. Johnson:

Air Quality Permit #4252-00 is deemed final as of October 23, 2008, by the Department of Environmental Quality (Department). This permit is for a portable whole tree chipper. 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

Brent Lignell
Environmental Engineer
Air Resources Management Bureau
(406) 444-5311

VW: BL
Enclosures

MONTANA AIR QUALITY PERMIT

Issued To: Glacier Gold LLC
P.O. Box 260
Olney, MT 59927

Permit: #4252-00
Application Complete: August 15, 2008
Preliminary Determination Issued: September 19, 2008
Department's Decision Issued: October 7, 2008
Permit Final: October 23, 2008
AFS #: 777-4252

An air quality permit, with conditions, is hereby granted to Glacier Gold LLC (Glacier Gold) 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

Glacier Gold operates a portable whole tree chipper powered by a diesel engine, and associated equipment. The maximum input process rate of the whole tree chipper is not to exceed 60 tons/hour (TPH), and the diesel engine is not to exceed 700-horsepower (hp).

B. Plant Location

Glacier Gold operates a portable wood chipping facility that will originally locate in Section 8, Township 32 North, Range 23 West, in Flathead County. The facility is located in a log yard near Olney and Stillwater Lake. However, Permit #4252-00 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.* Glacier Gold will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM_{10} nonattainment areas.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Glacier Gold shall not cause or authorize to be discharged into the atmosphere, from the portable whole tree chipper and any other associated equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

2. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Section II.A.1 (ARM 17.8.749).

3. Glacier Gold shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

4. Glacier Gold 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.3 (ARM 17.8.749).

5. Wood chipping production is limited to 525,600 tons during any rolling 12-month time period (ARM 17.8.749).

6. The material input process rate of the portable whole tree chipper shall not exceed 60 TPH (ARM 17.8.749).

7. Glacier Gold shall not operate more than one diesel-fired engine at any given time and the maximum rated design capacity shall not exceed 700 hp (ARM 17.8.749).

8. If the permitted equipment is used in conjunction with any other equipment owned or operated by Glacier Gold, 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).

9. Glacier Gold 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 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 may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this wood chipping 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. Glacier Gold shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

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

3. Glacier Gold 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. Glacier Gold shall maintain records, either on-site or at the main office, 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 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. Glacier Gold shall document, by month, the chipping production from the facility. By the 25th day of each month, Glacier Gold shall calculate the chipping production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.5. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

Glacier Gold shall provide the Department with written notification of the actual start-up date, engine model, hp, and model year of a new engine within 15 days after the actual start-up date (ARM 17.8.749).

SECTION III: General Conditions

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

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

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Glacier Gold 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. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Glacier Gold 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).

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. Glacier Gold 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.

Permit Analysis
Glacier Gold LLC
Permit #4252-00

I. Introduction/Process Description

A. Permitted Equipment

Glacier Gold LLC (Glacier Gold) operates a portable whole tree chipper with a maximum input process rate of 60 tons/hour (TPH), powered by a diesel engine not to exceed 700-horsepower (hp). The facility will originally locate in Section 8, Township 32 North, Range 23 West, in Flathead County. The facility is located in a log yard near Olney and Stillwater Lake. However, Permit #4252-00 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*. Glacier Gold will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM_{10} nonattainment areas.

B. Source Description

Glacier Gold proposes to use the portable wood chipping facility to chip waste-wood products for various purposes. For a typical operational set-up, whole tree logs are fed into a feed hopper, and then conveyed via feed rollers into a chipper hammermill. The wood is cut into chips, and then deposited to a pile where it is loaded on to haul trucks.

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

Glacier Gold 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 17.8.204 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
7. ARM 17.8.221 Ambient Air Quality Standard for Visibility
8. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Glacier Gold 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, Glacier Gold shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

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

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

6. ARM 17.8.324 Hydrocarbon Emissions – Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS).

   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 IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). NSPS requirements apply to owners or operators of stationary CI ICE that commence construction, modification, or reconstruction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine. CI ICE will be subject to this NSPS standard only 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.

      The proposed portable whole tree chipper includes a diesel engine that is a CI ICE manufactured before April 1, 2006, and is therefore not subject to this NSPS. However, since this permit is written in a de minimis friendly manner, should the proposed diesel engine be replaced with an engine manufactured after April 1, 2006, NSPS requirements would apply to that engine.

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 a Maximum Achievable Control Technology (MACT) Subpart as listed below:

   b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, any diesel RICE engine operated by Glacier Gold 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.

      The proposed portable whole tree chipper includes a diesel engine that was not manufactured after June 12, 2006. However, since this permit is written in a de minimis friendly manner, should the proposed diesel engine be replaced with one manufactured after June 12, 2006, MACT requirements would apply to that engine.

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. Glacier Gold submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. Glacier Gold has a PTE greater than 25 tons per year of nitrogen oxides (NO_x); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits – General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality 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. Glacier Gold 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. Glacier Gold submitted an Affidavit of Publication of public notice for the August 14, 2008, issue of the *Daily Interlake*, a newspaper of general circulation in the City of Kalispell in Flathead County, as proof of compliance with the public notice requirements.

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

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Glacier Gold 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 (EIS).

11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. 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.

13. 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).

14. 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.

15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 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.

16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department for incineration facilities subject to 75-2-215, Montana Code Annotated (MCA).

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 of 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 Air Quality Permit #4252-00 for Glacier Gold, 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 of all HAPs.

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

   d. This facility is not subject to any current NSPS; however, 40 CFR 60, Subpart IIII may become applicable to the facility in the future because of the de minimis-friendly nature of the permit with respect to the diesel engine.

   e. This facility is not subject to any current NESHAP standards; however, the area source provisions of 40 CFR 63, Subpart ZZZZ may become applicable to the facility in the future because of the de minimis-friendly nature of the permit with respect to the diesel engine.

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

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

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

III. BACT Determination

A BACT determination is required for each new or altered source. Glacier Gold 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.

The Department conducted a BACT analysis for sources of particulate matter (PM) and PM_{10}, as well as gaseous NO_X, and carbon monoxide (CO) emissions resulting from the proposed project. The Department has reviewed potentially applicable methods, as well as previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determinations. The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

PM/PM_{10} BACT

All visible emissions from the whole tree chipper and any other associated equipment, including the diesel engine, are limited to 20% opacity. Also, Glacier Gold must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking areas, and general plant property. Glacier Gold shall use water and/or chemical dust suppressant, as necessary, to maintain compliance with the opacity and reasonable precautions limitations. The Department determined that the 20% opacity limit and using water and/or chemical dust suppressant, as necessary, to maintain compliance with the opacity and reasonable precautions limitations constitutes BACT for all sources of fugitive PM/PM_{10} emissions associated with the proposed project.

NO_x BACT

Because of the limited amount of emissions produced by the diesel engine and the lack of readily-available and cost-effective add-on controls, the Department determined that there currently are no add-on controls available that would constitute BACT. Therefore, the Department determined that BACT for the diesel engine is proper operation and maintenance with no additional controls. The control options required for the proposed wood chipping facility and for the diesel engine that would be used to power the facility are similar to other recently permitted similar sources.

CO BACT

Because of the limited amount of emissions produced by the diesel engine and the lack of readily-available and cost-effective add-on controls, the Department determined that there currently are no add-on controls available that would constitute BACT. Therefore, the Department determined that BACT for the diesel engine is proper operation and maintenance with no additional controls. The control options required for the proposed wood chipping facility and for the diesel engine that would be used to power the facility are similar to other recently permitted similar sources.

IV. Emission Inventory

	tons/year					
Emission Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_2**
Bulk Loading	2.63	1.31	--	--	--	--
Conveyor Transfer	2.63	1.31				
Chipping	2.63	1.31	--	--	--	--
Pile Forming	2.63	1.31	--	--	--	--
Diesel Engine	6.75	6.75	95.05	20.48	7.57	6.29
Haul Roads	6.40	1.83	--	--	--	--
Total Emissions	**23.67**	**13.82**	**95.05**	**20.48**	**7.57**	**6.29**

Bulk Loading
Max Input Process Rate: 60 tons/hr (Company-provided information)
Max Hours of Operation: 8760 hr/yr
Annual Process Rate: 525,600 ton/yr (= 60 ton/hr * 8760 hr/yr)

PM Emissions:
Emission Factor: 0.02 lbs/ton (Department Emission Factor – Similar Source Wood Debarking)
Control Efficiency: 50% (Water spray)
Calculations: 0.02 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 2.63 ton/yr

PM_{10} Emissions:
Emission Factor: 0.01 lbs/ton (Assume 50% of PM is PM_{10})
Control Efficiency: 50% (Water spray)
Calculations: 0.01 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 1.31 ton/yr

Conveyor Transfer
Max Input Process Rate: 60 tons/hr (Company-provided information)
Max Hours of Operation: 8760 hr/yr
Annual Process Rate: 525,600 tons/yr (= 60 tons/hr * 8760 hr/yr)

PM Emissions:
Emission Factor: 0.02 lbs/ton (Department Emission Factor – Similar Source Wood Debarking)
Control Efficiency: 50% (Equipment design enclosure)
Calculations: 0.02 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 2.63 ton/yr

PM_{10} Emissions:
Emission Factor: 0.01 lbs/ton (Assume 50% of PM is PM_{10})
Control Efficiency: 50% (Equipment design enclosure)
Calculations: 0.01 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 1.31 ton/yr

Chipping
Max Input Process Rate: 60 tons/hr (Company-provided information)
Max Hours of Operation: 8760 hr/yr
Annual Process Rate: 525,600 ton/yr (= 60 ton/hr * 8760 hr/yr)

PM Emissions:
Emission Factor: 0.02 lbs/ton (Department Emission Factor – Similar Source Wood Debarking)
Control Efficiency: 50% (Equipment design enclosure)
Calculations: 0.02 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 2.63 ton/yr

PM_{10} Emissions:
Emission Factor: 0.01 lbs/ton (Assume 50% of PM is PM_{10})
Control Efficiency: 50% (Equipment design enclosure)
Calculations: 0.01 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 1.31 ton/yr

Pile Forming
Max Input Process Rate: 60 ton/hr (Company-provided information)
Max Hours of Operation: 8760 hr/yr
Annual Process Rate: 525,600 ton/yr (= 60 ton/hr * 8760 hr/yr)

PM Emissions:
Emission Factor: 0.02 lbs/ton (Department Emission Factor – Similar Source Wood Debarking)
Control Efficiency: 50% (Equipment design enclosure)
Calculations: 0.02 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 2.63 ton/yr

PM_{10} Emissions:
Emission Factor: 0.01 lbs/ton (Assume 50% of PM is PM_{10})
Control Efficiency: 50% (Equipment design enclosure)
Calculations: 0.01 lbs/ton * 60 ton/hr * 8760 hr/yr * 0.0005 ton/lb * (1-50/100) = 1.31 ton/yr

Diesel Engine
Output Capacity of Engine: 700 hp (Power output capacity of engine powering generator)
Max Hours of Operation: 8760 hr/yr

PM Emissions:
Assume all PM emissions are PM10 emissions: 6.75 ton/yr (Conservative estimate for PM)

PM_{10} Emissions:
Emission Factor: 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculations: 700 hp * 8760 hr/yr * 0.0022 lbs/hp-hr * 0.0005 ton/lb = 6.75 ton/yr

NO_x Emissions:
Emission Factor: 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculations: 700 hp * 8760 hr/yr * 0.031 lbs/hp-hr * 0.0005 ton/lb = 95.05 ton/yr

CO Emissions:
Emission Factor: 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculations: 700 hp * 8760 hr/yr * 0.00668 lbs/hp-hr * 0.0005 ton/lb = 20.48 ton/yr

VOC Emissions:
Emission Factor: 0.00247 lbs/hp-hr (as exhaust only TOC, AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculations: 700 hp * 8760 hr/yr * 0.00247 lb/hp-hr * 0.0005 ton/lb = 7.57 ton/yr

SO_2 Emissions:
Emission Factor: 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculations: 700 hp * 8760 hr/yr * 0.00205 lbs/hp-hr * 0.0005 ton/lb = 6.29 tons/yr

Haul Roads
Vehicle Miles Traveled: 5 VMT/day (Estimate)
Max Days of Operation: 365 days/yr
Emission Factor (lbs/VMT): $EF = k(s/12)^a(W/3)^b$; (Unpaved roads at industrial sites; AP-42, Ch. 13.2.2, 11/06)

PM Emissions:

Emission Factor: 14.02 lb/VMT
k = 4.9 lb/VMT (constant; value for TSP; AP-42, Ch. 13.2.2, Table 13.2.2-2, 11/06)
s = 8.4% (surface silt content; mean value for log yards; AP-42, Ch. 13.2.2, Table 13.2.2-1, 11/06)
W = 54 tons (mean vehicle weight; 1994 average loaded/unloaded or a 40 ton truck)
a = 0.7 (constant; value for TSP; AP-42, Ch. 13.2.2, Table 13.2.2-2, 11/06)
b =0.45 (constant; value for TSP; AP-42, Ch. 13.2.2, Table 13.2.2-2, 11/06)

Control Efficiency: 50% (Water Spray / Chemical Dust Suppressant)

Calculations: 14.02 lb/VMT * 5 VMT/day * 365 day/yr * 0.0005 tons/lb * (1-50/100) = 6.40 ton/yr

PM_{10} Emissions:

Emission Factor: 4.00 lb/VMT
k = 1.5lb/VMT (constant; value for PM10; AP-42, Ch. 13.2.2, Table 13.2.2-2, 11/06)
s = 8.4% (surface silt content; mean value for log yards; AP-42, Ch. 13.2.2, Table 13.2.2-1, 11/06)
W = 54 tons (mean vehicle weight; 1994 average loaded/unloaded or a 40 ton truck)
a = 0.9 (constant; value for TSP; AP-42, Ch. 13.2.2, Table 13.2.2-2, 11/06)
b = 0.45 (constant; value for TSP; AP-42, Ch. 13.2.2, Table 13.2.2-2, 11/06)

Control Efficiency: 50% (Water Spray / Chemical Dust Suppressant)

Calculations: 4 lb/VMT * 5 VMT/day * 365 day/yr * 0.0005 tons/lb * (1-50/100) = 1.83 ton/yr

V. Air Quality Impacts

Permit #4252-00 regulates a portable wood chipping facility while operating at various locations within Montana excluding those counties that have a Department-approved permitting program, and excluding those locations in or within 10 km of a PM_{10} non-attainment area. This permit contains operational conditions and limitations that will protect air quality for this site and the surrounding area. Also, this facility is a portable source that will operate on an intermittent and temporary basis, so, any effects to air quality will be minor and short-lived. Further, the amount of controlled particulate emissions generated by this project should not cause concentrations of PM_{10} in the ambient air that exceed the set standard.

VI. Ambient Air Impact Analysis

Potential PM_{10} emissions from the proposed wood chipping operations are minor. The Department determined, based on the size of the facility and its estimated emissions, that emissions from the proposed facility and associated equipment will not significantly impact the area of operation. The Department does not believe that the proposed facility and associated equipment operations will cause or contribute to any exceedances of the National Ambient Air Quality Standard (NAAQS).

VII. 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)].
X		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
X		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.

VIII. 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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Glacier Gold LLC
P.O. Box 260
Olney, MT 59927

Air Quality Permit number: 4252-00

Preliminary Determination Issued: September 19, 2008
Department Decision Issued: October 7, 2008
Permit Final: October 23, 2008

1. *Legal Description of Site:* Permit #4252-00 is issued for the operation of a portable wood chipping facility to be initially located in Section 8, Township 32 North, Range 23 West, in Flathead County. The facility is proposed to be located in a log yard near Olney and Stillwater Lake. However, Permit #4252-00 applies while operating at any location in Montana, except those areas having a Department -approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM_{10} nonattainment areas. A Missoula County air quality permit will be required for locations within Missoula County, Montana. Glacier Gold will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM_{10} nonattainment areas.

2. *Description of Project:* The permit applicant proposes the operation of a portable whole tree chipper powered by a diesel engine not to exceed 700-hp, and associated equipment. The portable whole tree chipper would process up to 60 TPH waste-wood products for various purposes. For a typical operational set-up, whole tree logs are fed into a feed hopper, and then conveyed via feed rollers into a hammermill. The wood is cut into chips, and then deposited to a pile where it is loaded on to haul trucks.

3. *Objectives of Project:* The objective of the project would be to produce business and revenue for the company through the removal of wood/biomass accumulation and the production and sale of wood/biomass products. The issuance of Permit #4252-00 would allow Glacier Gold to operate the permitted equipment at various locations throughout Montana.

4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Glacier Gold has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in Permit #4252-00.

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

Terrestrials would use the areas where chipping operations occur. Further, the project would result in emissions, which could affect any terrestrial and aquatic resources using the proposed project area. However, because the operations are temporary, seasonal, and relatively small by industrial standards, the operations alone would result in only minor impacts to the terrestrial and aquatic life of any given area.

B. Water Quality, Quantity and Distribution

Emissions from the proposed project could potentially affect existing resources of water in any proposed project area. However, as described in Section III of the permit analysis, the source would be required to apply BACT to emissions sources to minimize any potential emissions and thus minimize any potential impact to area water resources. Further, because the facility would be a temporary, seasonal, and a relatively small industrial source, any impacts to water resources in the any proposed project area would be minor and short-lived.

In addition, water would be used for dust suppression, but would only cause a minor disturbance to any given area. No surface water or ground water quality problems would be expected as a result of using water for dust suppression. Any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations. Overall, any impacts to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability and Moisture

Due to the nature of wood chipping operations, the proposed facility would impact the soil characteristics of the proposed project area. However, the operations would initially and typically take place within a previously disturbed timber cut area or industrial location. Because the proposed site exists as a disturbed site and because the proposed operation would be temporary, seasonal, and relatively small by industrial standards, any impacts would be minor and short-lived.

D. Vegetation Cover, Quantity, and Quality

Emissions from the proposed project could potentially affect existing vegetation resources in the proposed project area. However, the operations would initially and typically take place within a previously disturbed timber cut area or industrial location. As described in Section III of the permit analysis, the source would be required to apply BACT to emissions sources to minimize any potential emissions and thus minimize any potential impact to vegetation resources in the area. Further, because the facility would be a temporary, seasonal, and a relatively small industrial source, any impacts to vegetation resources in any given proposed project area would be minor and short-lived.

E. Aesthetics

The operations would be visible and would create additional noise in any given area of operation. Permit #4252-00 would include conditions to control emissions (including visible emissions) from the plant. In addition, the operations would initially and typically take place within a previously disturbed timber cut site or industrial location. Because the site is typically used for industrial purposes such as that proposed for the current permit action, the proposed operations would be typical and would have only a minor impact on the proposed project area. Further, given that the proposed project would be a temporary, seasonal, and a relatively small industrial operation any impact would be minor and short-lived.

F. Air Quality

The air quality impacts from the proposed wood chipping operation would be minor because Permit #4252-00 would include conditions limiting the opacity from the plant, as well as requiring water and/or chemical dust suppressant to control air pollution. Permit #4252-00 would limit total emissions from the operation and any additional equipment owned and operated by Glacier Gold to 250 tons/year or less at any given operating site, excluding fugitive emissions. Further, the Department determined that the facility would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's permitted PTE would be below the major source threshold level of 100 tons/year for any regulated pollutant.

The Clean Air Act, last amended in 1990, requires EPA to set NAAQS for pollutants considered harmful to public health and the environment. EPA has set such standards for "criteria pollutants" CO, nitrogen dioxide (NO_2), Ozone, Lead, PM_{10}, particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), and sulfur dioxide (SO_2). The Clean Air Act established two types of NAAQS, Primary and Secondary. Primary Standards set limits to protect public health, including, but not limited to, the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary Standards set limits to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Primary and Secondary Standards under the NAAQS are identical with the exception of SO_2 which has a less stringent Secondary Standard, and CO which does not have a Secondary Standard. Permit #4252-00 contains conditions and limitations, which would ensure compliance with all applicable air quality standards.

The wood chipping facility would be used on a temporary and intermittent basis and would initially and typically operate within a previously disturbed industrial area, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Overall, any air quality impacts resulting from the proposed wood chipping operation would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

To assess potential impacts to unique endangered, fragile, or limited environmental resources in the proposed area of operations, the Department contacted the Montana Natural Heritage Program (MNHP) to identify any species of concern associated with the initial proposed site location (Section 18, Township 32 North, and Range 23 East, in Flathead County, Montana). Search results concluded there are eleven environmental resources of special concern within the defined area, including eight species of special concern. The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer.

Terrestrial animal species of special concern inhabiting the area surrounding the proposed project site include the Gray Wolf, Common Loon, Bald Eagle, Canady Lynx, Grizzly Bear, Wolverine, and the Fisher. Aquatic animal species of special concern inhabiting the area surrounding the proposed project site include the Bull Trout.

The species of special concern that have been identified as being within the defined area have been generalized from many miles of potential habitat. The current permit action would result in the emission of air pollutants, which could result in minor impacts to existing unique endangered, fragile, or limited environmental resource in any given area of operation. However, given the temporary, seasonal, and relatively small industrial size of the operation, any impact would be minor and short-lived. In addition, initial and typical operations would take place within a previously disturbed industrial location further limiting the potential for impact to any unique endangered, fragile, or limited environmental resource in any proposed location of operation.

To determine the impact on the bald eagle population as addressed by previous permitting actions, the Department consulted the U.S. Department of Interior, Bureau of Reclamation Montana Bald Eagle Management Plan (MBEMP). With the identified nest being approximately 1.8 miles away from the Glacier Gold facility, the facility site would fall into an MBEMP "Zone III" Classification, representing home range for bald eagles. Zone III is classified as the area from 0.5 mile to 2.5 miles in radius from the nest site (Zone II from 0.25 to 0.5 miles, Zone I from 0 to 0.25 miles). Zone III represents most of the home range used by eagles during nesting season, usually including all suitable foraging habitat within 2.5 miles of all nest sites in the breeding area that have been active within 5 years.

The objectives in Zone III areas include maintaining suitability of foraging habitat, minimizing disturbance within key areas, minimizing hazards, and maintaining the integrity of the breeding area. The nest location would remain unchanged by the facility operation, except for a possible cumulative minor impact by air pollutants (by the facility as a whole), as described in Section 7.F of this EA. The proposed change would not impact the nest area, except, as described above, a possible impact from the slight increase in PM_{10} emissions. Therefore, the impact on bald eagles would be minor.

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

The proposed project would impact the demands on the environmental resources of water, air, and energy because the project would be a source of air pollution and require energy for operation. While deposition of pollutants may impact water and air resources, as explained in Sections 7.B and 7.F of this EA, respectively, the Department determined that the impacts of the proposed project on air and water resources would be minor due to the dispersion of pollutants and emissions control conditions that would be placed in Permit #4252-00. Furthermore, only small quantities of water would be required for dust suppression of emissions being generated at the site.

The proposed project would have minor impacts on the demand on energy resources because the facility would be powered by an industrial diesel engine that would use small amounts of fuel. Overall, the facility is a temporary, seasonal, and relatively small industrial source, so any demands for environmental resources of water, air, and energy would be minor and short-lived.

I. Historical and Archaeological Sites

To identify historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there have not been any previously recorded historic or archaeological sites within the proposed area. In addition, SHPO records indicated that no previous cultural resource inventories have been conducted in the area. SHPO determined that a cultural resource inventory is unwarranted at this time. The Department determined that due to the previous disturbance in the area and the small amount of land disturbance that would be required to construct the facility, the chance of the project impacting any cultural or historic sites would be minor.

J. Cumulative and Secondary Impacts

Overall, this project would result in minor impacts to the physical and biological environment in the immediate area, as discussed in Section 7.A through Section 7.I of this EA. Because all impacts discussed previously are minor or will not occur, the Department determined that any cumulative and secondary impacts associated with the permitted operations would be minor. Air pollution from the facility would be controlled by Department-determined BACT and conditions in Permit #4252-00. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in Permit #4252-00.

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 project would not have any effect on social structures and mores of the proposed area of operation. The project is temporary, seasonal, and small by industrial standards and operations would initially and typically take place in an existing timber cut area or industrial location. The predominant use of the surrounding area would not change as a result of the proposed project. Further, the facility would be required to operate according to the conditions that would be placed in Permit #4252-00, which would limit the effects to social structures and mores because air emissions would be limited from compliance with the established permit conditions.

B. Cultural Uniqueness and Diversity

The proposed project would not have any effect on cultural uniqueness and diversity of the proposed area of operation. The project is small by industrial standards and operations would typically take place at an existing timber cut area. The predominant use of the surrounding area would not change as a result of the proposed project.

C. Local and State Tax Base and Tax Revenue

The proposed project would have only a minor affect on the local and state tax base and tax revenue. The project is temporary, seasonal, and small by industrial standards, and operations would typically take place in an existing timber cut area requiring no new construction. The facility would require the use of only a few employees (between 7 and 10). Therefore, only minor impacts to the local and state tax base and revenue could be expected from company and employee revenues and facility production.

D. Agricultural or Industrial Production

Because the proposed project would initially and typically operate in an existing timber cut area or industrial location, the project would not effect or displace any land used for agricultural production and would not require any additional industrial construction. Further, no additional industrial production would result from the proposed project. Operations would have little effect upon adjacent lands that could be utilized for farmland and animal grazing and any such effects would be minor and temporary.

E. Human Health

The proposed project would result in the emission of air pollutants. However, Permit #4252-00 would include limits and conditions to ensure that the facility would be operated in compliance with all applicable air quality rules and standards. As detailed in Section 7.F of this EA, Glacier Gold would be required to use BACT and maintain compliance with all ambient air quality standards (including secondary standards). These standards are designed to be protective of human health. Overall, any health impacts resulting from the proposed project would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would initially and typically take place within an existing timber cut area or industrial location and would operate in an area removed from the general population. Therefore, the proposed operations would not affect any access to recreational and wilderness activities in the area. The operations would locate in a given area for a relatively short period of time thus decreasing any impact to the quality of recreational and wilderness activities in a given area of operation. Any impact to the quality of recreational and wilderness activities in a given area of operation would be minor.

G. Quantity and Distribution of Employment

The proposed project would be relatively small, and would have seasonal and intermittent operations. Glacier Gold would use approximately seven current company employees for the project, and would add up to three more. Therefore, the proposed project would have no significant effects upon the quantity and distribution of employment in this area.

H. Distribution of Population

The proposed operations would not disrupt the normal population distribution in any given area. Glacier Gold would use approximately seven current employees for the proposed project and may add up to three more. Because operations are temporary and seasonal, no individuals would be expected to permanently relocate to any area as a result of operating the facility.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Therefore, any demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed project would not impact local industrial and commercial activity because the proposed project would initially and typically operate in an existing timber cut area or industrial location and would not require any additional industrial construction or result in any additional industrial production.

K. Locally Adopted Environmental Plans and Goals

Glacier Gold would be allowed, by Permit #4252-00, to operate in areas designated by the EPA as attainment or unclassified for ambient air quality. An addendum would be required to operate in or within 10 km of certain PM_{10} nonattainment areas. Permit #4252-00 would contain limits for protecting air quality and for ensuring facility emissions are in compliance with any applicable ambient air quality standards. Because the facility would be a small and portable source and would have intermittent and seasonal operations, any impacts from the facility would be minor and short-lived. The Department is unaware of any local environmental plans or goals. Permit #4252-00 would be protective of the local areas.

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 discussed in Section 8.A through Section 8.K of this EA. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #4252-00.

Recommendation: No 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 a portable wood chipping facility. Permit #4252-00 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: (1) Montana Historical Society/State Historic Preservation Office, (2) Natural Resource Information System/Montana Natural Heritage Program.

Individuals or groups contributing to this EA: (1) Department of Environmental Quality/Air Resources Management Bureau, (2) Montana Historical Society/State Historic Preservation Office, (3) Natural Resource Information System/Montana Natural Heritage Program.

EA prepared by: Brent Lignell
Date: September 15, 2008