AIR QUALITY PERMIT

Issued To:	Fodge Pulp, Inc. P.O. Box 179 Bonners Ferry, ID 83805	Permit: #4051-00 Application Complete: 11/21/06 Preliminary Determination Issued: 12/13/06 Department's Decision Issued: 12/29/06 Permit Final: 1/17/07 AFS: #777-4051

An air quality permit, with conditions, is hereby granted to Fodge Pulp, Inc (Fodge), 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

Fodge operates a portable wood grinding operation including a Peterson Pacific DDC 5000 wood chipper/grinder powered by a 1000 brake-horsepower (bhp) capacity diesel-fired engine, a Peterson Pacific HC 2400 waste-wood chipper/grinder powered by a 330 bhp capacity diesel-fired engine, and associated equipment.

B. Plant Location

Permit #4051-00 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*.

The proposed initial operating site is the Old Louisiana Pacific Mill located within Section 32, Township 31 North, Range 31 West, in Lincoln County, Montana. This location is in or within 10 km of the Libby PM_{10} nonattainment area. Addendum 1 to Permit #4051-00 is required for operations at locations in or within 10 km of certain PM_{10} nonattainment areas.

SECTION II. Conditions and Limitations

A. Emission Limitations

1. Fodge shall not cause or authorize to be discharged into the atmosphere from any source visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).

2. Fodge 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).

3. Fodge 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.2 (ARM 17.8.752).

4. Water and/or water spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity and reasonable precautions limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749).

5. If the permitted equipment is used in conjunction with any other equipment owned or operated by Fodge, 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).

6. The diesel engine powering the Peterson Pacific DDC5000 wood grinder shall be limited to 5000 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

7. The diesel engine powering the Peterson Pacific HC2400 wood/waste-wood grinder shall be limited to 3900 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

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 testing (ARM 17.8.105).

C. Operational Reporting Requirements

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

2. Fodge 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. Fodge shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 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. Fodge shall maintain on-site records showing daily hours of operation and daily production rates for the current project for the length of the project. The records complied in accordance with this permit shall be maintained under Fodge control as a permanent business record for at least 5 years following the date of the measurement, must be available for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. Fodge shall document, by month, the operating hours of the diesel engine powering the Peterson Pacific DDC5000 wood grinder. By the 25th day of each month, Fodge shall total the diesel engine operating hours for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.6. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. Fodge shall document, by month, the operating hours of the diesel engine powering the Peterson Pacific HC2400 wood/waste-wood grinder. By the 25th day of each month, Fodge shall total the diesel engine operating hours for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. Fodge shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information (ARM 17.8.749 and ARM 17.8.1204).

SECTION III. General Conditions

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

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

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Fodge 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 Fodge may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

J. Fodge 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.

Permit Analysis
Fodge Pulp, Inc.
Permit #4051-00

I. Introduction/Process Description

A. Permitted Equipment

Fodge Pulp, Inc. (Fodge), operates a portable wood grinding operation including a Peterson Pacific DDC 5000 wood chipper/grinder powered by a 1000 brake-horsepower (bhp) capacity diesel-fired engine, a Peterson Pacific HC 2400 waste-wood chipper/grinder powered by a 330 bhp capacity diesel-fired engine, and associated equipment.

B. Source Description

Fodge proposes to use the portable wood grinding plant to chip and grind wood and waste-wood products for various purposes. For a typical operational set-up, wood product and wood waste are loaded via a front end loader into the wood grinder or waste-wood grinder via the respective wood/waste-wood grinder's in-feed belt deck. From the wood/waste-wood grinder, material is sent via conveyor to a chip truck for product hauling.

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 the 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, 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).

   Fodge 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 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
2. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
3. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
4. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Fodge must maintain compliance with all 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 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, Fodge 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 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of an affected facility for any NSPS Subpart defined in 40 CFR 60.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Fodge 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 facility to obtain an air quality permit or permit modification if they construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) more than 25 tons per year of any pollutant. Fodge has the potential to emit greater than 25 tons per year of PM, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), oxides of nitrogen (NO_x), and carbon monoxide (CO); therefore, a 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. Fodge 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. Fodge submitted an affidavit of publication of public notice for the October 27, 2006, issue of *The Western News*, a newspaper of general circulation in the Town of Libby in Lincoln 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 Fodge 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 17.8.762 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. (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.

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 Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

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

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

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

a. PTE > 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 #4051-00 for Fodge, 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.

e. This facility is not subject to any current NESHAP standards.

f. This source is neither a Title IV affected source, nor a solid waste combustion unit.

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

h. As allowed by ARM 17.8.1204(3), the Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

Fodge has taken federally enforceable permit limits applicable to the diesel engines powering the Peterson Pacific DDC5000 and the Peterson Pacific HC2400 wood/waste-wood grinders to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and a Title V operating permit is not required.

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

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness.

Fodge shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information.

Based on these facts, the Department determined that Fodge will be a synthetic minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or altered source. Fodge 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 PM and PM_{10}, as well as gaseous NO_X, and CO emissions resulting from the proposed project.

PM/PM_{10} BACT

All visible emissions from the Peterson Pacific wood chipper/grinder(s) and any other associated equipment are limited to 20% opacity. Also, Fodge must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking areas, and general plant property. Fodge 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

Nitrogen oxide formation occurs by two fundamentally different mechanisms. The predominant mechanism with internal combustion engines is thermal NO_x which arises from the thermal dissociation and subsequent reaction of nitrogen (N_2) and oxygen (O_2) molecules in the combustion air. Most thermal NO_x is formed in the high-temperature region of the flame from dissociated molecular nitrogen in the combustion air. Some NO_x, called prompt NO_x, is formed in the early part of the flame from reaction of nitrogen intermediary species, and HC radicals in the flame. The second mechanism, fuel NO_x, stems from the evolution and reaction of fuel-bound nitrogen compounds with oxygen. Gasoline, and most distillate oils have no chemically-bound fuel N_2 and essentially all NO_x formed is thermal NO_x.

For NO_X emissions resulting from operation of the diesel engines powering the Peterson Pacific wood/waste-wood grinders, the Department conducted a BACT evaluation including the following technologies: Selective Catalytic Reduction (SCR) and no additional control/proper design and combustion. Based on similar source BACT review, the Department determined SCR and no additional control/proper design and combustion constitute available and technically feasible NO_x control options for sources of this type.

SCR Control

SCR is a post-combustion gas treatment technique for reduction of nitric oxide (NO) and nitrogen dioxide (NO_2) in the engine exhaust stream to molecular nitrogen, water, and oxygen. In the SCR process, aqueous or anhydrous ammonia (NH_3) or urea is used as a reducing agent, and is injected into the flue gas upstream of the catalyst bed. NO_X and NH_3 combine at the catalyst surface, forming an ammonium salt intermediate, which subsequently decomposes to produce elemental nitrogen and water. Similar source BACT review has demonstrated that SCR can achieve NO_X reduction as high as 85%. However, the use of SCR has the potential for toxic and additional environmental and energy impacts. Further, because potential emissions of NO_x are relatively low, incorporation of available pollutant-specific control technologies would result in high cost-effective ($/ton removed) values thereby making pollutant-specific add-on controls for NO_x economically infeasible in this case. Therefore, the Department determined that SCR does not constitute BACT for the control of NO_x emissions from diesel engine operations, in this case.

Proper Design and Combustion

Proper design and combustion reduces NO_X formation through optimum combustion practices, proper design, and maintenance. The control efficiency for proper design and combustion was determined by comparing emission factors from AP-42, Table 3.3-1, October 1996, from uncontrolled sources and the emissions data from the manufacturer of the engine. Proper design and combustion will achieve approximately 50% reduction in NO_X emissions.

In summary, because proper design and combustion will achieve significant NO_X reduction, SCR was determined to be economically infeasible with potential for toxic and additional environmental and energy impacts. Proper design and combustion is determined to be economically feasible with little potential for toxic and additional environmental and energy impacts. Therefore, for the proposed diesel generator, the Department determined that proper design and combustion without any add-on control constitutes BACT, in this case.

CO BACT

CO is a colorless, odorless, relatively inert gas formed as an intermediate combustion product that appears in the exhaust when the reaction of CO to carbon dioxide (CO_2) cannot proceed to completion. This situation occurs if there is a lack of available oxygen near the hydrocarbon

(fuel) molecule during combustion, if the gas temperature is too low, or if the residence time in the cylinder is too short. The oxidation rate of CO is limited by reaction kinetics and, as a consequence, can be accelerated only to a certain extent by improvements in air and fuel mixing during the combustion process. In an ideal combustion process, all of the carbon and hydrogen contained within the fuel are oxidized to form CO_2 and water.

For CO emissions resulting from operation of the diesel engines powering the Peterson Pacific wood/waste-wood grinders, the Department conducted a BACT evaluation including the following technologies: Oxidation of post combustion gases and no additional control (proper design and operation). Based on similar source BACT review, the Department determined oxidation of post combustion gases and no additional control (proper design and combustion) constitute available and technically feasible CO control options for sources of this type.

Oxidation of Post Combustion Gases

Although various specialized technologies exist, fundamentally, oxidizers or incinerators use heat to destroy CO in the gas stream. Oxidation controls, like combustion processes, ideally break down the molecular structure of an organic compound into CO_2 and H_2O. Temperature, residence time, and turbulence of the system affect CO control efficiency. Incinerators have the potential for very effective CO control; however, this efficiency comes at the expense of increasing NO_X production.

Because potential emissions of CO are relatively low, incorporation of available pollutant-specific control technologies would result in high cost-effective ($/ton removed) values thereby making pollutant-specific add-on controls for CO economically infeasible in this case. Therefore, the Department determined that oxidation of post-combustion gases does not constitute BACT for the control of CO emissions from diesel engine operations, in this case. Oxidation of post combustion gases has not been required of other recently permitted similar sources.

No Additional Control – Proper Design and Operation

Reduction of CO can be accomplished by controlling the combustion temperature, residence time, and available oxygen. Based on the potential emissions from the generator and the cost-effective value associated with controlling CO emissions through oxidation of post combustion gases, the Department determined that no additional controls using proper design and operation of the unit constitutes BACT for CO emissions, in this case.

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

IV. Emission Inventory

	ton/year					
Emission Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_2**
Peterson Pacific DDC5000 Wood Grinder	3.50	1.75	0.00	0.00	0.00	0.00
Peterson Pacific HC2400 Wood-Waste Grinder	2.85	1.42	0.00	0.00	0.00	0.00
Material Transfer: Peterson Pacific DDC5000	7.01	3.50	0.00	0.00	0.00	0.00
Material Transfer: Peterson Pacific HC2400	5.69	2.85	0.00	0.00	0.00	0.00
Diesel Engine #1: Peterson Pacific DDC5000	1.75	1.75	60.00	13.75	1.76	0.08
Diesel Engine #2: Peterson Pacific HC2400	1.42	1.42	19.95	4.30	1.59	1.32
Haul Roads/Truck Traffic	2.74	1.32	0.00	0.00	0.00	0.00
Total Emissions	**24.96**	**13.92**	**79.95**	**3.35**	**18.05**	**1.40**
Note: Enforceable limitations placed on diesel engine #1 and #2 to keep NO_x emissions below the Title V permitting threshold						

Peterson Pacific DDC5000 Wood Grinder

Process Rate: 80 ton/hr (Company Information)
Control Efficiency: 50% (equipment design enclosure)
Hours of Operation: 8760 hr/yr

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Wood Debarking)
Calculations: 0.02 lb/ton * 80 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% = 3.50 ton/yr

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 80 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% = 1.75 ton/yr

Peterson Pacific HC2400 Wood/Waste-Wood Grinder

Process Rate: 65 ton/hr (Company Information)
Control Efficiency: 50% (equipment design enclosure)
Hours of Operation: 8760 hr/yr

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Wood Debarking)
Calculations: 0.02 lb/ton * 65 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% = 2.85 ton/yr

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 65 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% = 1.42 ton/yr

Material Transfer: Peterson Pacific DDC5000

Process Rate: 80 ton/hr (Company Information)
Number of Transfers: 2 Transfers (Raw Material Loading and Product Load-Out)
Control Efficiency: 50% (Reasonable Precautions – Water/Water Spray)
Hours of Operation: 8760 hr/yr

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Wood Debarking)
Calculations: 0.02 lb/ton * 80 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% * 2 = 7.01 ton/yr

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 80 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% * 2 = 3.50 ton/yr

Material Transfer: Peterson Pacific HC2400

Process Rate: 65 ton/hr (Company Information)
Number of Transfers: 2 Transfers (Raw Material Loading and Product Load-Out)
Control Efficiency: 50% (Reasonable Precautions – Water/Water Spray)
Hours of Operation: 8760 hr/yr

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Wood Debarking)
Calculations: 0.02 lb/ton * 65 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% * 2 = 5.69 ton/yr

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 80 ton/hr * 8760 hr/yr * 0.0005 ton/lb * 50% * 2 = 2.85 ton/yr

Diesel Engine #1: Peterson Pacific DDC5000

Operational Capacity: 1000 horsepower
Hours of Operation: 5000 hr/yr (Permit Limit, ARM 17.8.1204)

PM Emissions

Assume all PM emissions are PM_{10} emissions.

PM_{10} Emissions

Emission Factor: 0.0007 lb/hp-hr (AP-42, Section 3.4, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.0007 g/Hp-hr * 5000 hr/yr * 0.0005 ton/lb = 1.75 ton/yr

NO_X Emissions

Emission Factor: 0.024 lb/hp-hr (AP-42, Section 3.4, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.024 lb/hp-hr * 5000 hr/yr * 0.0005 ton/lb = 60.00 ton/yr

CO Emissions

Emission Factor: 0.0055 lb/hp-hr (AP-42, Section 3.4, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.0055 lb/hp-hr * 5000 hr/yr * 0.0005 ton/lb = 13.75 ton/yr

VOC Emissions

Emission Factor: 0.000705 lb/hp-hr (AP-42, Section 3.4, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.000705 lb/hp-hr * 5000 hr/yr * 0.0005 ton/lb = 1.76 ton/yr

SO_X Emissions

Fuel Sulfur Content: 0.004% S (AP-42, Fifth Edition, Volume I, Appendix A: Diesel Fuel Specs)
Conversion Factor: 0.004% S * 0.00809 = 0.00003 lb/hp-hr (AP-42, Section 3.4, Table 3.4-1, 10/96)
Emission Factor: 0.00003 lb/hp-hr (AP-42, Section 3.4, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.00003 lb/hp-hr * 5000 hr/yr * 0.0005 ton/lb = 0.08 ton/yr

Diesel Engine #2: Peterson Pacific HC2400

Operational Capacity: 330 horsepower
Hours of Operation: 3900 hr/yr (Permit Limit, ARM 17.8.1204)

PM Emissions

Assume all PM emissions are PM_{10} emissions.

PM_{10} Emissions

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 10/96)
Calculations: 330 hp * 0.0022 g/Hp-hr * 3900 hr/yr * 0.0005 ton/lb = 1.42 ton/yr

NO_X Emissions

Emission Factor: 0.031 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 10/96)
Calculations: 330 hp * 0.031 lb/hp-hr * 3900 hr/yr * 0.0005 ton/lb = 19.95 ton/yr

CO Emissions

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 10/96)
Calculations: 330 hp * 0.00668 lb/hp-hr * 3900 hr/yr * 0.0005 ton/lb = 4.30 ton/yr

VOC Emissions

Emission Factor: 0.00247 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 10/96)
Calculations: 330 hp * 0.00247 lb/hp-hr * 3900 hr/yr * 0.0005 ton/lb = 1.59 ton/yr

SO_X Emissions

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 10/96)
Calculations: 330 hp * 0.00205 lb/hp-hr * 3900 hr/yr * 0.0005 ton/lb = 1.32 ton/yr

Haul Roads

Vehicle Miles Traveled (VMT): 5 VMT/day (Estimated)
Control Efficiency: 50% (Water Spray/Chemical Dust Suppressant)

PM Emissions

Emission Factor 6 lb/VMT (Department Emission Factor)
Calculations: 6 lb/VMT * 5 VMT/day * 50% * 365 day/yr * 0.0005 ton/lb = 2.74 ton/yr

PM_{10} Emissions

Emission Factor 2.70 lb/VMT (Department Emission Factor)
Calculations: 2.70 lb/VMT * 5 VMT/day * 50% * 365 day/yr * 0.0005 ton/lb = 1.23 ton/yr

V. Air Quality Impacts

Permit #4051-00 regulates the wood grinding plant while operating at any location within Montana excluding those counties that have a Department approved permitting program. In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minimal and short-lived. If the source locates and operates in or within 10 km of a PM_{10} non-attainment area, Fodge will be required to operate in accordance with Addendum #1 to Permit #4051-00, which includes more stringent limits and conditions to ensure that the proposed operation does not result in additional degradation of air quality in the affected non-attainment area. A more detailed discussion and analysis of ambient impacts from operations locating in or within 10 km of certain PM_{10} nonattainment areas is contained in the Addendum Analysis to Addendum #1 to Permit #4051-00.

Addendum #1
Fodge Pulp, Inc.
Permit #4051-00

An addendum to air quality Permit #4051-00 is issued to Fodge Pulp, Inc. (Fodge), pursuant to Section 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

Addendum #1 to Permit #4051-00 allows for the operation of a portable wood-grinding plant to be located in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}) nonattainment areas including, but not limited to: Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte. Fodge's application for Permit #4051-00 indicates winter and summertime operations in or within 10 km of the Libby and Columbia Falls PM_{10} nonattianment area(s). The portable wood-grinding plant incorporates a Peterson Pacific DDC 5000 wood chipper/grinder powered by a 1000 brake-horsepower (bhp) capacity diesel-fired engine, a Peterson Pacific HC 2400 waste-wood chipper/grinder powered by a 330 bhp capacity diesel-fired engine, and associated equipment.

II. Seasonal and Site Restrictions

Addendum 1 applies to Fodge while operating at any location in or within 10 kilometers of certain PM_{10} nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

A. Winter Season (October 1-March 31). During the winter season, the only location(s) in or within 10 km of certain PM_{10} nonattainment area(s) where Fodge may operate are:

1. Old Louisiana Pacific Mill Site: Section 32, Township 31 North, Range 31 West, Lincoln County, MT (Libby PM_{10} nonattainment area).

2. Any other site in or within 10 km of certain PM_{10} nonattainment areas that may be approved, in writing, by the Department of Environmental Quality (Department).

B. Summer Season (April 1-September 30). Fodge may operate at any location in or within 10 km of the Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte PM_{10} nonattainment areas.

C. Fodge shall comply with the limitations and conditions contained in Addendum #1 to Permit #4051-00 while operating in or within 10 km of any of the previously listed PM_{10} nonattainment areas. Addendum #1 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum #1 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

A. Operational and Emission Limitations: Winter Season (October 1 – March 31)

1. All visible emissions from the portable wood-grinding plant and associated equipment may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

2. Water and water spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Section III.A.1 (ARM 17.8.752).

3. Fodge shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

4. Fodge shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation in Section II.A.3 (ARM 17.8.749).

5. Total combined wood/waste-wood grinding production from the Peterson Pacific DDC5000 and the Peterson Pacific HC2400 shall be limited to 2,900 tons during any rolling 24-hour time period (ARM 17.8.749).

6. The diesel engine powering the Peterson Pacific DDC5000 wood-grinder shall be limited to 20 hours of operation during any rolling 24-hour time period and 5000 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

7. The diesel engine powering the Peterson Pacific HC2400 wood-grinder shall be limited to 20 hours of operation during any rolling 24-hour time period and 3900 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

B. Operational and Emission Limitations: Summer Season (April 1 – September 30)

1. All visible emissions from the portable wood-grinding plant and associated equipment may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

2. Water and water spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Section III.A.1 (ARM 17.8.752).

3. Fodge shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

4. Fodge shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation in Section II.A.3 (ARM 17.8.749).

5. The diesel engine powering the Peterson Pacific DDC5000 wood grinder shall be limited to 5000 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

6. The diesel engine powering the Peterson Pacific HC2400 wood/waste-wood grinder shall be limited to 3900 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

C. Operational Reporting Requirements

1. Fodge shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).

2. Fodge shall provide written notice of relocation of the permitted equipment at least 15 days prior to the physical transfer of equipment (ARM 17.8.734).

3. During the Winter Season (October 1 through March 31), Fodge shall document, by day, the combined total wood/waste-wood grinding production from the Peterson Pacific DDC5000 and the Peterson Pacific HC2400 units. Fodge shall sum the combined total wood/waste-wood production during the previous 24 hours to verify compliance with the limitation in Section III.A.5. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).

4. During the Winter Season (October 1 through March 31), Fodge shall document, by day, the hours of operation for the diesel engine powering the Peterson Pacific DDC5000 wood-grinder. Fodge shall sum the total diesel engine operating hours during the previous 24 hours to verify compliance with the limitation in Section III.A.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).

5. During the Winter Season (October 1 through March 31), Fodge shall document, by day, the hours of operation for the diesel engine powering the Peterson Pacific HC2400 wood-grinder. Fodge shall sum the total diesel engine operating hours during the previous 24 hours to verify compliance with the limitation in Section III.A.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted no later than March 15 and may be submitted along with the annual emission inventory (ARM 17.8.749).

6. Fodge shall document, by month, the operating hours of the diesel engine powering the Peterson Pacific DDC5000 wood grinder. By the 25th day of each month, Fodge shall total the diesel engine operating hours for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.6. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. Fodge shall document, by month, the operating hours of the diesel engine powering the Peterson Pacific HC2400 wood/waste-wood grinder. By the 25th day of each month, Fodge shall total the diesel engine operating hours for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

8. Production information for the site(s) covered by this Addendum shall be submitted to the Department within 30 days of completion of the project. The information shall include (ARM 17.8.749):

   a. Material throughput

   b. Hours of operation

   c. Fugitive dust information consisting of a listing of all plant vehicles, including the following for each vehicle type:

      i. Number of vehicles
      ii. Vehicle type
      iii. Vehicle weight, loaded
      iv. Vehicle weight, unloaded
      v. Number of tires on vehicle
      vi. Average trip length
      vii. Number of trips per day per vehicle
      viii. Average vehicle speed
      ix. Area of activity
      x. Vehicle fuel usage (gasoline or diesel) annual total

   d. Fugitive dust control for haul roads and general plant area:

      i. Hours of operation of water trucks
      ii. Application schedule for chemical dust suppressant, if applicable

Addendum 1 Analysis
Fodge Pulp, Inc.
Permit #4051-00

I. Permitted Equipment:

Fodge Pulp, Inc. (Fodge) owns and operates a portable wood-grinding plant to be operated at various locations within Montana. Equipment used at this facility includes, but is not limited to:

- A portable Peterson Pacific DDC5000 wood grinder with a material throughput capacity of 80 tons per hour (TPH). The Peterson Pacific DDC5000 unit is powered by a 1000-horsepower (hp) capacity diesel-fired engine
- A portable Peterson Pacific HC2400 wood/waste-wood grinder with a material throughput capacity of 65 TPH. The Peterson Pacific HC2400 unit is powered by a 330-hp capacity diesel-fired engine
- Associated material handling and storage equipment and operations

II. Source Description

Fodge proposes to use the portable wood grinding plant to chip and grind wood and waste-wood products for various purposes. For a typical operational set-up, wood product and wood waste are loaded via a front end loader into the wood grinder or waste-wood grinder via the respective wood/waste-wood grinder's in-feed belt deck. From the wood/waste-wood grinder, material is sent via conveyor to a chip truck for product hauling.

III. Applicable Rules and Regulations

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

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

A. <u>ARM 17.8.749 Conditions for Issuance of Permit</u>. This rule requires that Fodge demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Fodge demonstrated compliance with all applicable rules and standards as required for permit issuance.

B. <u>ARM 17.8.764 Modification of Permit</u>. An air quality permit may be modified 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 which do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:

1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;

2. The source will operate in the new location for a period of less than 1 year; and

3. The source will not have any significant impact on any nonattainment area or any Class I area.

Fodge shall submit proof of compliance with the transfer and public notice requirements when Fodge transfers to any of the locations covered by this Addendum and will only be allowed to stay in the new location for a period of less than 1 year. The conditions and limitations contained in Addendum #1 to Permit #4051-00 will prevent Fodge from having a significant impact on certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas.

IV. Emission Inventory

Summer Season (April 1 – September 30)	**lb/day**					
Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_x**
Peterson Pacific DDC5000 (80 TPH Capacity)	19.20	9.60	0.00	0.00	0.00	0.00
Peterson Pacific HC2400 (65 TPH Capacity)	15.60	7.80	0.00	0.00	0.00	0.00
Material Transfer: DDC5000 (80 TPH Capacity)	38.40	19.20	0.00	0.00	0.00	0.00
Material Transfer: HC2400 (65 TPH Capacity)	31.20	15.60	0.00	0.00	0.00	0.00
Diesel Engine #1: Peterson Pacific DDC5000	16.80	16.80	576.00	132.00	16.92	0.78
Diesel Engine #2: Peterson Pacific HC2400	17.42	17.42	245.52	52.91	19.56	16.24
Haul Roads	15.00	6.75	0.00	0.00	0.00	0.00
Total	**153.62**	**93.17**	**821.52**	**184.91**	**36.48**	**17.01**
Note: A complete summer season emission inventory is on file with the Department						

Winter Season (October 1 – March 31)	**lb/day**					
Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_x**
Peterson Pacific DDC5000 (80 TPH Capacity)	16.00	8.00	0.00	0.00	0.00	0.00
Peterson Pacific HC2400 (65 TPH Capacity)	13.00	6.50	0.00	0.00	0.00	0.00
Material Transfer: DDC5000 (80 TPH Capacity)	32.00	16.00	0.00	0.00	0.00	0.00
Material Transfer: HC2400 (65 TPH Capacity)	26.00	13.00	0.00	0.00	0.00	0.00
Diesel Engine #1: Peterson Pacific DDC5000	14.00	14.00	480.00	110.00	14.10	0.65
Diesel Engine #2: Peterson Pacific HC2400	14.52	14.52	204.60	44.09	16.30	13.53
Haul Roads	15.00	6.75	0.00	0.00	0.00	0.00
Total	**130.52**	**78.77**	**694.60**	**154.09**	**30.40**	**14.18**
Note: Winter season emission inventory based on 20 hour/day operational limit						

Winter Season Emission Inventory Calculations

Peterson Pacific DDC5000 Wood Grinder

Process Rate: 80 ton/hr (Company Information)
Control Efficiency: 50% (Equipment Design - Enclosure)
Hours of Operation: 20 hr/day

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Log De-Barking)
Calculations: 0.02 lb/ton * 80 ton/hr * 20 hr/day * 50% = 16.00 lb/day

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 80 ton/hr * 20 hr/day * 50% = 8.00 lb/day

Peterson Pacific HC2400 Wood-Waste Grinder

Process Rate: 65 ton/hr (Company Information)
Control Efficiency: 50% (Equipment Design - Enclosure)
Hours of Operation: 20 hr/day

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Log Debarking)
Calculations: 0.02 lb/ton * 65 ton/hr * 20 hr/day * 50% = 13.00 lb/day

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 65 ton/hr * 20 hr/day * 50% = 6.5 lb/day

Material Transfer: Peterson Pacific DDC5000

Process Rate: 80 ton/hr (Company Information)
Number of Transfers: 2 Transfers (Raw Material Loading and Product Load-Out)
Control Efficiency: 50% (Reasonable Precautions)
Hours of Operation: 20 hr/day

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Log De-Barking)
Calculations: 0.02 lb/ton * 80 ton/hr * 20 hr/day * 2 transfers * 50% = 32.00 lb/day

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 80 ton/hr * 20 hr/day * 2 transfers * 50% = 16.00 lb/day

Material Transfer: Peterson Pacific HC2400

Process Rate: 65 ton/hr (Company Information)
Number of Transfers: 2 Transfers (Raw Material Loading and Product Load-Out)
Control Efficiency: 50% (Reasonable Precautions)
Hours of Operation: 20 hr/day

PM Emissions

Emission Factor: 0.02 lb/ton (Department Emission Factor – Similar Source Log De-Barking)
Calculations: 0.02 lb/ton * 65 ton/hr * 20 hr/day * 2 transfers * 50% = 26.00 lb/day

PM_{10} Emissions

Emission Factor: 0.01 lb/ton (Assume 50% of PM is PM_{10})
Calculations: 0.01 lb/ton * 65 ton/hr * 20 hr/day * 2 transfers * 50% = 13.00 lb/day

Diesel Engine #1: Peterson Pacific DDC5000

Power Output Capacity: 1000 hp (Manufacturers Information)
Hours of Operation: 20 hr/day

PM_{10} Emissions (Assume All PM Emissions are PM_{10} Emissions)

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.0007 lb/hp-hr * 20 hr/day = 14.00 lb/day

NO_X Emissions

Emission Factor: 0.0240 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.0240 lb/hp-hr * 20 hr/day = 480.00 lb/day

CO Emissions

Emission Factor: 0.00550 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.00550 lb/hp-hr * 20 hr/day = 110.00 lb/day

VOC Emissions

Emission Factor: 0.00071 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.00071 lb/hp-hr * 20 hr/day = 14.10 lb/day

SO_X Emissions

% Sulfur = 0.004 (AP-42, Fifth Edition, Volume I, Appendix A, Diesel Fuel Specs)
Emission Factor: 0.00809 * 0.004 %S = 0.00003 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 1000 hp * 0.00003236 lb/hp-hr* 20 hr/day = 0.65 lb/day

Diesel Engine #2: Peterson Pacific DDC5000

Power Output Capacity: 330 hp (Manufacturers Information)
Hours of Operation: 20 hr/day

PM_{10} Emissions (Assume All PM Emissions are PM_{10} Emissions)

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 330 hp * 0.0022 lb/hp-hr * 20 hr/day = 14.52 lb/day

NO_X Emissions

Emission Factor: 0.0310 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 330 hp * 0.0310 lb/hp-hr * 20 hr/day = 204.60 lb/day

CO Emissions

Emission Factor: 0.00668 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 330 hp * 0.00668 lb/hp-hr * 20 hr/day = 44.09 lb/day

VOC Emissions

Emission Factor: 0.00247 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 330 hp * 0.00247 lb/hp-hr * 20 hr/day = 16.30 lb/day

SO_X Emissions

Emission Factor: 0.00205 lb/hp-hr (AP-42, Table 3.4-1, 10/96)
Calculations: 330 hp * 0.00205 lb/hp-hr * 20 hr/day = 13.53 lb/day

Haul Roads

Vehicle Miles Traveled (VMT): 5 VMT/day (Estimated)
Control Efficiency: 50% (Water Spray/Chemical Dust Suppressant)

PM Emissions

Emission Factor 6 lb/VMT (Department Emission Factor)
Calculations: 6 lb/VMT * 5 VMT/day * 50% = 15.00 lb/day

PM_{10} Emissions

Emission Factor 2.70 lb/VMT (Department Emission Factor)
Calculations: 2.70 lb/VMT * 5 VMT/day * 50% = 6.75 lb/day

IV. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM_{10}. Due to exceedances of the national standards for PM_{10}, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM_{10}. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM_{10} State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM_{10} emissions.

Addendum #1 to Permit #4051-00 is for a portable wood/waste-wood grinding plant to be located in or within 10 kilometers (km) of certain PM_{10} nonattainment areas during the summer season (April 1 through September 30) and winter season (October 1 through March 31). Operating locations under Addendum #1 may include areas in or within 10 km of certain PM_{10} nonattainment areas, including, but not limited to Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte.

In the view of the Department, the amount of controlled emissions generated by the operation will not exceed any set ambient standard. In addition, Addendum #1 to Permit #4051-00 contains limitations and conditions that will be protective of the PM_{10} nonattainment areas.

V. Air Quality Impacts

Permitted allowable plant operations (operating at maximum capacity for 20 hours per day) result in emissions that are less than the Department's PM_{10} modeling threshold of 82 pounds per day for portable sources locating in or within 10 km of certain PM_{10} nonattainment areas during the winter season (October 1 through March 31). Because permitted allowable PM_{10} emissions are less than the Departments modeling threshold, it is assumed that PM_{10} emissions resulting from the proposed project comply with the applicable PM_{10} NAAQS/Montana Ambient Air Quality Standards (MAAQS) during winter season operations. Therefore, the Department determined that allowable operations, while locating in or within 10 km of certain PM_{10} nonattainment areas during the winter season, will not cause or contribute to a violation of the applicable PM_{10} NAAQS/MAAQS.

Further, the Department determined that any diesel internal combustion engine with a capacity greater than 600 hp should be modeled to ensure compliance with the applicable PM_{10} NAAQS/MAAQS during winter season operations. A modeled 24-hour impact level of 5 $\mu g/m^3$ or less is considered the level at which a proposed source would not cause or contribute to a

violation of the NAAQS/MAAQS while operating in a non-attainment area (40 Code of Federal Regulations (CFR) 51.165(b)(2)). Because the proposed diesel-fired engine providing power to the Peterson Pacific DDC5000 wood grinder has a capacity of up to 1000 hp, modeling was conducted for the affected unit. The modeled 24-hour peak impact for the diesel generator operating at capacity is 4.81 $\mu g/m^3$. Therefore, according to 40 CFR 51.165(b)(2), capacity operation of the affected unit during the winter season will not cause or contribute to a violation of the NAAQS/MAAQS. Further, the more restrictive diesel engine winter season operating limit of 20 hours per day included in Addendum #1 provides additional assurance that PM_{10} emissions resulting from operation of the diesel engine powering the Peterson Pacific DDC5000 wood grinder will not cause or contribute to a violation of the NAAQS/MAAQS.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

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*:* Fodge Pulp, Inc.
P.O. Box 179
Bonners Ferry, ID 83805

Air Quality Permit number: 4051-00

Preliminary Determination Issued: December 13, 2006
Department Decision Issued: December 29, 2006
Permit Final: January 17, 2007

1. *Legal Description of Site*: Permit #4051-00 is issued for the operation of a portable wood grinding plant to be located at various locations throughout Montana, including locations in or within 10 km of certain PM_{10} nonattainment areas.

2. *Description of Project*: Fodge would use the portable wood grinding plant to chip and grind wood and waste-wood products for various purposes. For a typical operational set-up, wood product and wood waste would be loaded via a front end loader into the wood grinder or waste-wood grinder via the respective wood/waste-wood grinder's in-feed belt deck. From the wood/waste-wood grinder, material would be sent via conveyor to a chip truck for product hauling.

3. *Objectives of Project*: Fodge proposes to use the wood grinder and associated equipment for the production of hog fuel for boiler operations under separate industrial operations, clearing of slash piles from various sites, and the production of saleable materials. In addition, operation of the proposed wood grinding plant would result in increased business and revenue for Fodge.

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 Fodge 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 #4051-00.

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 Resource			X			yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I	Historical and Archaeological Sites				X		yes
J.	Cumulative and Secondary Impacts			X			yes

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

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the areas where grinding 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 grinding operations, the proposed facility would impact the soils and geography 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, 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 #4051-00 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 grinding operation would be minor because Permit #4051-00 and Addendum #1 to Permit #4051-00 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, Permit #4051-00 would limit total emissions from the operation and any additional equipment owned and operated by Fodge to 250 tons/year or less at any given operating site, excluding fugitive emissions.

The Clean Air Act, which was last amended in 1990, requires EPA to set NAAQS for pollutants considered harmful to public health and the environment (Criteria Pollutants: CO, NO_X, Ozone, Lead, PM_{10}, SO_X). 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 are identical with the exception of Sulfur Dioxide which has a less stringent Secondary Standard. Permit #4051-00 contains conditions and limitations, which would ensure compliance with all applicable air quality standards.

The plant would be used for operations in locations in or within 10 kilometers of certain PM_{10} nonattainment areas in Montana. While operating at these sites, Fodge would be subject to the requirements included in Addendum #1 to Permit #4051-00, which provides more stringent operating conditions to protect the affected PM_{10} nonattainment area from further adverse impact

and air quality degradation. In addition, computer modeling conducted for the diesel-fired engine providing power to the Peterson Pacific DDC5000 has demonstrated that the proposed project, operating in accordance with the provisions contained in Addendum #1 to Permit #4051-00, would not cause or contribute to further degradation of air quality in the affected PM_{10} nonattainment area.

Finally, the wood grinding plant 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 grinding operation would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

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.

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

As described in Sections 7.B and Section 7.F of this EA, the operations would only demand and impact small quantities of water and air for proper operation. Further, the facility would generate all required operating energy by the use of a permitted diesel engine. In addition, because the facility is a temporary, seasonal, and relatively small industrial source, any demands for environmental resources of water, air, and energy would be minor and short-lived.

I. Historical and Archaeological Sites

The proposed facility would initially and typically locate within a previously disturbed timber cut site or industrial location and would not require any permanent construction activity. According to previous correspondence from the Montana State Historic Preservation Office, there is low likelihood of adverse disturbance to any known archaeological or historic site, given previous industrial disturbance within a given area. Therefore, the operation would have no effect on any known historic or archaeological site.

J. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from 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. Air pollution from the facility would be controlled by Department-determined BACT and conditions in Permit #4051-00. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in Permit #4051-00.

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

Summery of Comments of 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.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of any given area of operation would not be impacted by the proposed wood grinding operation because the proposed facility would be a portable source, the facility would conduct seasonal and intermittent operations, and the facility would utilize a relatively small number of employees for normal operations. Further, because operations would initially and typically locate in previously disturbed industrial areas, the predominant use of the surrounding area would not change as a result of the proposed operation. Therefore, the cultural uniqueness and diversity of the area would not be impacted.

C. Local and State Tax Base and Tax Revenue

The proposed project would have only a minor impact on the local and state tax base and tax revenue. 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 requiring no new jobs or additional new construction. Further, the facility would require the use of only a few employees. 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.

E. Human Health

The proposed project would result in the emission of air pollutants. However, Permit #4051-00 and Addendum #1 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, Fodge 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

Because the proposed project would initially and typically take place within an existing timber cut area or industrial location, the proposed operations would not affect any access to recreational and wilderness activities in the area. Further, 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

Activities from the proposed operations would not affect the quantity and distribution of employment in the area. Fodge would use a few current company employees for the project. No additional employees would be required for facility construction and no new employees would result from the proposed project.

H. Distribution of Population

The proposed operations would not disrupt the normal population distribution in any given area because Fodge would use a few current employees for the proposed project and because operations are temporary and seasonal. Plant operations would not require relocation of new people to any given area of operation.

I. Demands of 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

With the exception of operations in or within 10 km of certain PM_{10} nonattainment areas, the Department is not aware of any locally adopted environmental plans or goals in any potential area affected by the proposed project. If the plant moved to an area classified as nonattainment for PM_{10}, the operation would be required to operate under the provisions of Addendum 1 to Permit #4051-00. The requirements contained in Addendum 1 would be protective of the National and Montana Ambient Air Quality Standards and would protect the area from further degradation of air quality as required for designated nonattainment 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 #4051-00.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed facility are minor, therefore, an EIS is not required. In addition, the source would be applying the Best Available Control Technology and the analyses indicates compliance with all applicable air quality rules and regulations.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality - Air Resources Management Bureau.

Individuals or groups contributing to this EA: Department of Environmental Quality - Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office.

EA prepared by: M. Eric Merchant, MPH
Date: December 12, 2006