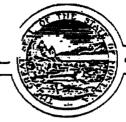
DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES



TED SCHWINDEN, GOVERNOR

COGSWELL BUILDING

STATE OF MONTANA

HELENA, MONTANA 39620

October 20, 1985

Montana Refining Company 1900 Tenth Street Black Eagle, MT 59414

Attention: Mike Tramelli

Your air quality permit application dated August 14, 1985, and received in this office on September 6, 1985, for Refinery Equipment (Major) to be located in Sec. 1 T20N R3E, Cascade County is approved. The application was given permit number 2161.

Conditions:

- 1. Refinery sulfur dioxide emissions shall not exceed seven (7) tons per day.
- 2. The Fluid Catalytic Cracking (FCC) unit shall be source tested for both carbon monoxide and sulfur dioxide. Carbon monoxide emissions shall not exceed 12.9 tons per day or 4700 tons per year.
- 3. In addition, recipient shall also submit a plan for quantifying sulfur dioxide emissions from the following pieces of equipment:
 - (a) boilers; (b) crude heater; (c) vacuum heater; (d) reformer heater;
 - (e) NHDS heater.
- 4. The above test results, including a final report, shall be submitted to the Air Quality Bureau no later than May 15, 1986.
- 5. Applicable test methods and procedures outlined in 40 CFR, part 60 shall be followed unless recipient can demonstrate that other test methods are more appropriate or equivalent.
- 6. Recipient shall comply with all general conditions noted on attached page.

We appreciate your interest in this matter.

For the Department,

Harold Robbins, Chief Air Quality Bureau

AN EQUAL OPPORTUNITY EMPLOYER

BEFORE THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

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In the matter of the MONTANA REFINING COMPANY, Cascade County; compliance with ARM 16.8.811, ambient air quality standard for carbon monoxide

STIPULATION

The Montana Department of Health and Environmental Sciences ("DHES") and the Montana Refining Company ("MRC"), in accordance with the provisions and requirements of the Montana Clean Air Act, Title 75, Chapter 2, MCA ("Act"), hereby agree to and undertake the stipulations set forth below concerning MRC's compliance with the Montana Ambient Air Quality Standard for Carbon Monoxide adopted by the Montana Board of Health and Environmental Sciences ("BHES") at ARM 16.8.811.

- MRC is a major stationary source of carbon monoxide as defined by ARM 16.8.921(22) and is located approximately one mile north of downtown Great Falls.
- As a source in existence as of November 23, 1968, MRC is not subject to the permitting requirements applicable to major stationary sources pursuant to ARM 16.8.1104.
- 3. In accordance with the federal Clean Air Act, 42 USC 7401 et seq. part of the Great Falls AQCR was designated nonattainment for carbon monoxide by the U.S. Environmental Protection Agency ("EPA"). Such designation resulted in a 1977 emission inventory prepared by DHES' Air Quality Bureau which estimated MRC's carbon monoxide ("CO") emissions to be 11,000 tons annually, or 18% of area wide CO emissions.
- 4. Based upon a 1977 DHES emission inventory of CO and upon current (1985) monitored emissions of CO in the Great Falls area, the DHES has determined that compliance with both federal and state standards for CO may be achieved and maintained in the Great Falls area if MRC continues to

operate its refinery without exceeding current maximum CO emissions of approximately 4,700 tons annually.

(P)

- 5. With the intention of maintaining compliance with federal and state ambient air quality standards for CO in the Great Falls area, DHES and MRC, pursuant to Section 75-2-401(4), MCA, have determined that compliance by MRC with ARM 16.2.811 will be maintained and assured most appropriately by the following:
 - (a) MRC expressly relinquishes and waives any right or entitlement it may have under the Montana Clean Air Act to operate its Great Falls refinery without an air quality permit for carbon monoxide issued by DHES under ARM Title 16, Chapter 8, Sub-chapter 11.
 - (b) MRC agrees to subject itself to the provisions and requirements for carbon monoxide applicable to air quality permittees set forth in ARM Title 16, Chapter 8, Sub-chapter 11, and specifically has completed and submitted an application for an air quality permit and has followed the procedure for obtaining an air quality permit set forth in ARM Title 16, Chapter 8, Sub-chapter 11 as the same relates to control of carbon monoxide.
 - (c) DHES reviewed MRC's permit application in accordance with the provisions of ARM Title 16, Chapter 8, Sub-chapter 11, and, with respect to the level of CO emissions from MRC's refinery to be allowed under such permit, DHES represents and agrees to establish such level in accordance with MRC's existing level of emissions, which are approximately 4,700 tons per year.
- 6. MRC agrees that the stipulations agreed to herein shall be

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binding upon its transferees and assignees and any other persons who may become responsible for the operation of the refinery and that MRC will apprise in writing any such transferees, assignees, or persons of the stipulations agreed to herein.

- 7. This Stipulation shall be made an Appendix of Air Quality
 Permit #2161 which was issued by DHES on October 20, 1985 to
 MRC under ARM Title 16, Chapter 8, Sub-chapter 11.
- 8. MRC, by obtaining an air quality permit under ARM Title 16, Chapter 8, Sub-chapter 11 and by complying with the terms of such air quality permit concerning carbon monoxide emissions, will be deemed by DHES to be in compliance with ARM 16.8.811 as such rule exists on August 1, 1985.

MONTANA REFINING COMPANY

By Mc Gramille

Mittle

DATED this ______ day of

DECZMBER, 1985

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

Ckul Air Oult Russ

DATED this 2 day of 1985

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STATE OF MONTANA AIR QUALITY CONTROL NAIG NOITATION PLAN oup ect:

Flathead County Air Quality Control Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of A-1 Paving, Kalispell, Montana, with 40 CFR 50.6, Mational Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana Ambient Air Quality Standard for PM-10

STIPULATION

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The Department of Health and Environmental Sciences ("Department"), and A-1 Paving ("A-1 Paving"), hereby stipulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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BACKGROUND:

1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("partic-22 ulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average 25 concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et sec., as 25

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amended by the Clean Air Act Amendments of 1990 ("Act").

- 2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- 5. On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Pederal Clean Air Act of all Group I areas, including Kalispell, are designated by operation of law to be in non-attainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-

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Flathead County Subject: Air Quality Control Program

tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NARQS and the PM-10 MAAQS.
- On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Hontana, demonstrating attainment of the particulate matter NAAQS. implementation plan relied upon the receptor acdeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition project, and barren ground.
- On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected.

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deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CHB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demonstration of attainment.

- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The department has determined that emission limitations applicable to A-1 Paving were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the

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results of this modeling, the PM-10 emissions from A-1 Paving were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for A-1 Paving are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for A-1 Paving and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, both parties agree that revised emission limitation must be imposed upon A-1 Paving.

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12. The parties to this Stipulation agree that any such emission limitations placed on A-1 Paving must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to A-1 Paving. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, A-1 Paving") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA findsthe Kalispell implementation plan incomplete or disapproves

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(STIPULATION)

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1 it or if future violations of the particulate matter NAAQS or 2 PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Board is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Under Sections 75-2-101, et seg., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, NCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell nonattainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to A-1 Paving.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of 25 the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to statute.

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stipulation, and adopts the same as enforceable measures applicable to A-1 Paving.

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A-1 PAVING 14

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Attorney 20 21

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENT

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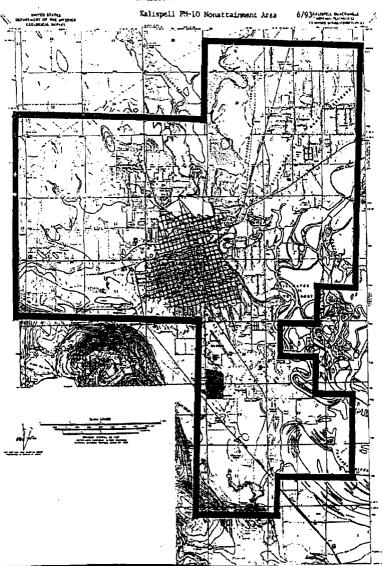
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EXHIBIT A



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STATE OF MONTANA AIR QUALITY CONTROL THE TATION PLAN

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EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

A-1 Paving, Inc. 3131 Highway 2 East Kalispell, MT 59901

The above-named company is hereinafter referred to as "A-1."

Section I: Affected Facilities

- Equipment: A portable 1980 CedarRapids Model 8828 Drum Mix asphalt plant (350 TPH) Serial #37455 with a wet scrubber.
 - Original Location: 3131 Highway 2 East (NW 1/4, Sec 22, T29N, R21W, Flathead County)

Section II: Limitations and Conditions

- A. . Emission Limitations
 - A-1 shall abide by all permit conditions as described in permit #2699, Issued October 25, 1991. 1.
 - A-1 shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, or the general plant area any visible fugitive emissions that exhibit opacity of 5% or greater. (RACT)
 - A-1 shall treat all unpaved portions of the haul roads, access roads, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 5% opacity limitation. (RACT) 3.
- Reporting Requirements
 - Fugitive dust information consisting of a listing of all plant vehicles including the following for each vahicle type:
 - Number of vehicles;
 - Vehicle type;
 - Vehicle weight, loaded
 - Vehicle weight, unloaded; Number of tires on vehicle; đ.
 - Average trip length;
 - Number of trips per day;

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- Average vehicle speed:
- Area of activity; and
- Vehicle fuel usage (gasoline or diese!) annual

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- Fugitive dust control for hauf roads and general plant area:
 - Hours of operation of weter trucks.
 - b Application schedule for chemical dust suppressant if applicable.
- C. A-1 shall comply with all other applicable state, federal, and local laws and regulations.
- D. A-1 must maintain a copy of the air quality stipulation at the Kalispell asphair plant site and make that copy available for inspection by department personnel upon request.

Section III: General Conditions

- A. Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, exacting any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this stipulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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> STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN

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Analysis of Conditions A-1 Paving, Inc.

Introduction

A. Equipment

A portable 1980 CedarRapids Model 8828 Drum Mix asphalt plant (350 TPH) Serial #37455 with a we: scrubber.

E. Process Description

This plant produces a sphalt for use in construction, repair, and maintenance of roads and high ways.

C. Facility Location

A-1 operates a portable asphalt plant and a ready mix concrete batch plant in a gravel pit at 3131 Highway 2 East INW %, Sec 22, T29N, R21W, Flathead County) near the Kalispell nonattainment area.

- il. Applicable Rules and Regulations
 - A. ARM 16.8, Subchapter 8, Ambient Air Quality, including but not limited to:

ARM 16.8.821 Ambient Air Quality Standard for PM-10. This section states that no person may cause or contribute to concentrations of PM-10 in the ambient air which exceed the set standards. (See Section V)

- E. ARM 16.8, Subchapter 9, Prevention of Significant Deterioration This facility is not a PSD source since this facility is not a listed source and the potential to emit is below 250 tons per year of any polletant.
- C. 16.8 Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborner This section requires an opacity limitation of 20% for all fugitive emission sources.
 - ARM 16,8.1403 Particulate Matter, Industrial Process. This section states that no person shall cause, allow, or permit to be discharged into the outdoor atmosphere from any operation, process, or activity, particulate matter in excess of the amount determined by using the following equation:

Allowable Emissions = 55 (350 tons/hr)-11 - 40 = 64.76 lbs/hr.

The enforceable total particulate matter emission limit is 14.00 lbs/hr, therefore the source is in compliance.

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- ARM 16.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% from all stacks constructed or altered since November 23, 1968.
- 16.8.1423 Standards of Performance for New Stationary Sources (NSPS). This plant was constructed in 1980 so NSPS (40 CFR Part 60, general provisions, and Subpart I Hot Mix Asphalt Facilities) applies to this facility.

III. RACM/RACT Determination

Under section 189(s)(1)(C) of the amended Clean Air Act of 1990, moderate area State implementation Plans (SiP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispell area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Asphalt Plant Stack Emissions

A-1's asphalt plant was constructed in 1980, and therefore, NSPS does apply. The department has determined that BACT for NSPS asphalt plants is an emission limitation of 0.04 gr/dscf and 20% opacity. The plant was tested in 1992 and the results showed emissions at 0.0381 gr/dscf. Since BACT is more stringent than RACT and this asphalt plant meets BACT, the RACT requirement is met.

E. Material Transfer Fugitive Emissions

RACT for material transfer points for source\$ of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 20% opacity limitation.

C. Fugitive Road Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

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IV. Emission Inventory

1980 Ceder Rapida Model 6525 -Drum Mix Portable Asphalt Plant #27-55

Annual Emission Bates (Allowable) *

TSP 9H-10 NOX VOC C1 SCX 14,70 14,70 13.23 10.20 13.27 24.63 77.50 11.63 34.70 Source Asphalt Plant Drum Dryer Elevator, Screens, Bins, and Hixer Cold Aggregate Handling Houl Roads 73-20 36-75 14-70 0.15 0.06 ,-125.10 40.48 13.23 10.29 12.77 26.83 Total Emissions

* Sesed on operating 2100 hours/year.

Daily Emission Retes (Allowable) **

159 PN-10 MOK VCC 55 45x

136.00 336.00 302.40 235.20 5'F.21 413.20
1880.50 257.00
840.00 336.00
1.31 0.47

2657.31 924.47 302.40 255.20 215.21 613.20 Source Asphalt Plant Drum Dryer Elevator, Screens, Bins, and Hixer Eald Appreyate kandling Haul Roods (Defly) Tatal Emissidos

Asphalt Plant Drum bryer with Wet Scrubber

Process Rate: 350 tons/hr (Maximum production rate)
Rours of operation: 2100 hr/yr (Maximum Allowable) 24 hrs/day

1SF Emiasions:

Emission factor: 0.04 tba/rcn (AP-42, B.1-1)
Celculations: 0.04 tba/ron * 350.0 tons/hr = 14.00 tbs/or 14.00 tbs/or 14.00 tbs/or 2100 hr/yr * 0.0005 tens/tb = 16.7 trns/yr 14.00 tbs/hr * 24 hrs/day = 336 tbs/day

PM-10 Emissions:

Emission factor: 0.06 lbs/tcn (AP-42, 8.1-1)
Calculations: 0.06 lbs/ton * 350.0 tons/hr = 16.00 lbs/hr = 16.00 lbs/hr * 2100 hr/yr * 0.0003 tons/lb = 16.7 ccns/yr 14.00 lbs/hr * 26 hrs/day = 336 lbs/cay

HOs Emissions:

Emission Factor: 0.036 (ba/tch (AFSC 3-05-002-01, page 116) Calculations: 0.036 (ba/ton = 350.0 tons/hr = 12.60 (ba/hr 12.60 (ba/hr = 2100 hr/yr = 0.0005 tons/tb = 13.23 tens/yr 12.60 tbs/hr = 24 hrs/day = 302.6 (bs/Cay

YOC Entestens:

Emission Factor: 0.028 (bs/tm (AFSEC 3-05-002-01, psgs 116; Calculations: 0.028 (bs/tm * 330.0 tons/tm * 9.80 (bs/tm * 9.80 (bs/

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^{**} Based on operating 24 hours/day.

STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN

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CO Emissions:

Emission Factor: 0.038 lbs/ton (AFSSC 3-05-002-01, psg= 116)
Calculations: 0.038 lbs/ton = 350.0 tons/hr = 13.30 lbs/hr = 13.50 lbs/hr = 2100 hr/yr = 0.005 tons/lb = 13.57 tons/yr 13.30 lbs/hr = 24 hrs/day = 319.2 lbs/day

and the state of t

SOx Emissions:

Exission factor: 0.073 [bs/ton (AFSC 3-05-002-01, page 112) Calculations: 0.073 [bs/ton = 350.0 tons/hr = 25.55 [bs/hr = 205.45] bs/hr = 2100 hr/yr = 0.0005 tons/hr = 24.23 tons/yr 25.55 [bs/hr = 24 hrs/day = 613.2] [bs/day

Elevator, Screens, Bins, and Mixer

Process Rate: 350 tcms/hr (Maximum production rate)
Nours of operation: 2100 hr/yr (Maximum Allowable) 26 hrs/day

Emission Factor: 0.2 lbs/ton (AFSSC 3-05-002-02, page 116)
Calculations: 0.20 lbs/ton 0 350.0 tons/hr = 70.00 lbs/hr = 70.00 l

PH-10 Emissions:

Emission Factor: 0.03 (bs/ton (AFSSC 3-05-002-02, pdg* 1)5)
Calculations: 0.03 (bs/ton * 150.0 tons/hr = 10.50 lbs/hr = 204 hrs/day = 252 lbs/day

Process Rate: 350 tcns/hr (Haxinum production rate) Hours of operation: 2100 hr/yr (Haxinum Allowable) 24 hrs/day

Emission Factor: 0.10 (bs/ton (AFSSC 3-05-002-04, page 11±) Calculations: 0.10 (bs/ton = 35.00 tos/hr = 35.00 tos/hr = 35.00 tos/hr = 2100 hr/yr = 0.0005 tors/tb = 36.75 tons/yr 35.00 tos/hr = 24 hrs/day = 840 tos/day

Esission Factor: 0.06 lbs/ton (AFSSC 3-05-002-04, page 116)
Calculations: 0.06 lbs/ton = 350.0 tone/hr = 14.00 lbs/hr = 14.00 lbs/hr = 2100 hr/yr = 0.0055 tone/lb = 216.70 tone/yr 14.00 lbs/hr = 24 hrs/day = 336 lbs/day

Operating Nours: 2100 Nours/Yr Vehicle Miles Traveled: 346 VMT/Yr Control Efficiency is 50% for watering.

TSP Emission Factor is determined by the following equation:

Emission ractor is determined by the rottowing equation:

E = 5.9%*(s/12)*(s/30)*(w/3)**0.7*(w/4)**0.5*PR
Where:

E Y TSP Emission factor in Lba/Vehicla Mile Traveled (VMT)

k * Particle sizing constant for TSP

s * Silt Content in percent

a Average Speed of vahicits in sph

Ve Average swiight of vehiclas in John

ve Average swiight of vehiclas in lone

PRe Precipitation Rat(a based on the following:

130 Days with more than .0° of Pracipitation

PRe (365 days - 130 days)/365 Days = 0.643x

Carl Cam. Inven. 4 17/81

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Flathead County Air Quality Control Program

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TEP Exission Factor: 1,78 its/Wif
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E(1573+ (346 VHT/Tr)(1.78 Lbs/VHT)(0.5) E(1573+ 308 Lbs/Yr or 0.15 fors/Yr

PHIS Emission factor is determined by the following equation:

E= 5.5%%(e//2)*(s/30)*(s/33**0.7*(s/4)**0.5*PR

hard:
E= px10 Emission factor in the/Vehicle Nite Traveled (VRT)
the Particle siting constant for PRIO 0.35
as Sitt Contrit in percent 0.7
SA Average Speed of vehicles in sph 5.0 mph
MA Average height of vehicles in the 5.0 mph
MA Average height of vehicles in forms 20.3 Tone
MA Average neight of vehicles in forms 4.0 % Tone
MA Average more of sheets on vehicles
MA Pracipitation mails based on the following:
130 Days with more than .0*m of Precipitation
PR= (365 days * 130 days)/365 Days < 0.6638

9410 Emiesione:

PHID Emission Fector: 0,64 Lbs/VMI

E(PRIO)+ (346 VRI/Tr)(0.62 Lbe/VRI)(0.5) E(PRIO)+ 111 LBE/TT or 0.06 lone/Tr

Heut Roads (Dally)

Operating Hours: 2100 tours/Yr Vahicle Hiles traveled: 346 VMT/Yr Control Efficiency is 50% for watering.

TSP Emission factor is determined by the following equation:

E* 5.9*k*(s/12)*(s/3)*(s/3)**0.7*(s/4)**0.5*PR

Shere:

E* TSP Emission Factor in the //Whicle Mite Traveled (VMT)

The Particle sizing creatent for TSP

as Silk Emission in percent

SA Average Type of whicles in mph

MA Average velsht of vehicles in Tans

we Average velsht of vehicles on vehicles

PRA Assumes no precipitation

A sheris

1,0000

TSP Emission factor: 2.77 Lbs/VRT

E(TSP)= (346 VMF/Yr)(E,77 Lbs/VMT)(0,5) E(TSP)= 478 Lbs/Yr or 0,24 Tons/Yr or 1,31 Lbs/Pay

PRIO Emission factor is determined by the following equation:

tw 5. Pht/(a/12)*(5/30)*(a/3)**0.7*(a/4)**0.5*PR
Whars:

Ev PHID Emission Factor in Lbs/Vahicte Mite Traveled (VMT)

An Particle sizing constant for PHID

As Sitt Contact in percent

En Average trace of vehicles in sph

We Average wight of vehicles in Tona

Be Average wight of vehicles in the contact in t

PHIO Emissions:

PM10 Emission Fector

E(PMID)= (346 VMI/Tr)(1.00 Lbs/YMT)(0.5) E(PMID)= 172 Lbs/Yr or 0.09 lons/Yr or 0.47 Lbs/day

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V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled registive dust emissions from roads, parking lots, construction, and demolition, since technical studies Extermined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA required the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an energysis, the department determined that emission limitations applicable to the A-1 facility were in some cases nonexistent Ino permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the A-1 facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) indicated that the facility contributed significantly to the PM-10 concentrations in the Kalispell nonattainment

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for the A-1 facility. The new emission limitations in this document, in conjunction with similar limitations on other Kelispell area facilities, demonstrates through dispersion modeling that compliance with the NAAOS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed

With the proper utilization of existing control equipment, and application of reasonable control techniques (watering or application of dust suppressant) for haul road dust the department has determined that the A-1 facility can operate at maximum design rates and remain in compliance with the supulated emission limitations.

Kalispail and Evergreen Nonattainment Boundaries

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5348000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, west to 702000mE, 5339000mN, south to 703000mE, 5339000mN, south to 703000mE, 5338000mN, east to 704000mE, 5338000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, most to 702000mE, 5336000mN, west to 702000mE, 5336000mN, north to 700000mE, 5336000mN, west to 702000mE, 5336000mN, north to 695000mE, 5345000mN, east to 700000mE, 5345000mN, north to 700000mE, 5347000mN.

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VI. Environmental Assessment

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

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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogswell Building, Helena, Montana 59620 (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: A-1 Paving, Inc., Air Quality Stipulation for Kalispell SiP.

Description of Project: This stipulation is for the operation of a portable 1980 CedarRapids Missal 8023 Drum Mix asphalt plant (350 TPH) Serial #37455 with a wat scrubber. This plant produces asphalt for use in construction, repair, and maintenance of roads and highways.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAACS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattoinment for PM-10. As a result of this designation, 8-2 required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (Signite PM november, 1991). The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment end techniques; which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAACS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives available,

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A list of enforceable conditions and an analysis of conditions are contained in permit #2699 and in a signed slipulation.

Recommendation: No EIS is required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control techniques at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAQS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quelity Bureau.

EA prepared by: Michael Glavin

Date: August 10, 1993

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Potential Impact on Physical Environment

		Weign	Moderate	Minor	Home	Unknawn	Comments Attached
1	Terrestral and Aquatic Life and Habitats			x			
2	Water Quality, Quantity and Distribution			x	1.		
3	Geology and Soil Quality, Stebility and Meinture			×			
4_	Vegetation Cover, Quantity and Quality			x			
3	Assitisticas			×			
6	Air Gushty			x	[
7	Unique Endengered, Fregile or Limites Environmental Resource					×	
•	Demands on Environmental Resource of Weter, Air and Energy			х			
2	Historical and Archesological Sites					X	
10	Cumulative and Secondary Impacts			×			

Potential Impact on Human Environment

		Major	Maderate	Mittor	None	Unknown	Comments Attached
1	Speigl Structures and Mores				×		
2_	Guitural Uniqueness and Diversity				×		
3	Local and Stare Tax Base and Tax Ravenus				×		
4	Agricultural or Industrial Production			x			
8	Human Health			×			
•	Access to and Quality of Repressonal and Wilderness Activities				X		
7	Quantity and Distribution of Employment			×			
	Distribution of Population			x			
5	Demands for Gavernment Services			x			
10	Industrial and Commercial Acousty			x			
11	Locally Adopted Environmental 3 and and Goals	-		X			
12	Cumulative and Secondary lengacis			×	1		1

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BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of Equity Supply Company, Kalispell, Montana, with 40 CFR 50.6, National Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana

Ambient Air Quality Standard for

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PM-10

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The Department of Health and Environmental Sciences ("Department"), and Equity Supply Company ("Equity Supply"), hereby stirulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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A. BACKGROUND:

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1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seg., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

- 2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (2:hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- 5. On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Federal Clean Air Act of all Group I areas, including Kalispell, are designated by operation of law to be in nonattainment for the particulate matter NAAQS. 7407(d)(4)(B), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as "mrdsrate", the state was required to submit to EFA an implementa-

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tion plan no later than one year from enactment of November 2 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is ettached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAQS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate metter NAAQS. implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition project, and barren ground.
- 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected.

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deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demonstration of attainment.

- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The department has determined that emission limitations applicable to Equity Supply were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the

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results of this modeling, the PM-10 emissions from Equity Supply were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for Equity Supply are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Equity Supply and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, both parties agree that revised emission limitation must be imposed upon Equity Supply.

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B. BINDING EFFECT

12. The parties to this Stipulation agree that any such emission limitations placed on Equity Supply must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Equity Supply. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Equity Supply Company") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves

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it or if future violations of the particulate matter NAAQS or 2 PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Board is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Under Sections 75-2-101, et seq., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient sir quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell nonattainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to Equity Supply.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of 25 the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to statute.

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit condițions. 18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the libitations and conditions contained in Exhibit B of this Stipulation, and adopts the same as enforceable measures applicable to Equity Supply. EQUITY SUPPLY COMPANY MONTANA DEPARTMENT OF HEALTH AND ENVIRONMEN SCIENCES/ audert J. Addinson Director Think ? 58 BY Attorney DATE 9-15-43

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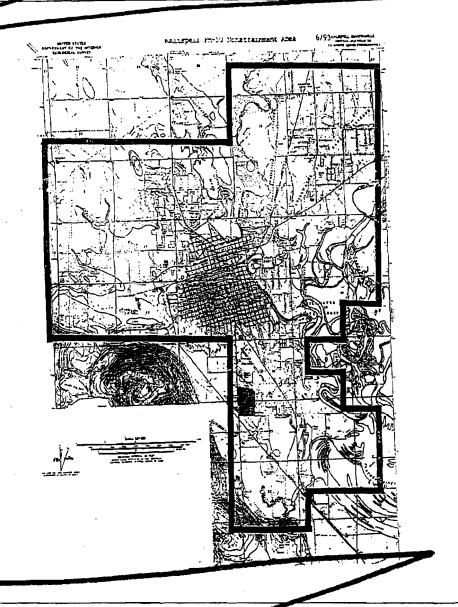
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EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

Equity Supply Company P.O. 8ox 579 Kalispell, MT 59901

The above-named company is hereinafter referred to as "Equity Supply."

SECTION I: Affected Facilities

A. Plant Location:

- A feed mill and seed cleaning plant known as Equity #1, located on West Montana and 3rd Avenue North in the city limits of Kalispell, Montana. (Section 22, Township 29 North, Range 21 West, Flathead County)
- A grain and fertilizer elevator known as Equity #2, located on Center Street and 5th Avenue West in the city limits of Kalispell, Montana. (Section 22, Township 29 North, Range 21 West, Flathead County)

B. Affected Equipment and Facilities:

Fourity	41	. Fend Mil	ecd Sea	d Cleaning	Plant
- will	• •	- 1 FRG MAN	F	A CAMBLINE	

		Maximum	
	Process/Eculoment	Process Rate	Control Equipment
1.	Bulk Unloading (Grain Receiving)	60 tons/hr	Stationary chute
, 2 .	Bulk Unloading (Seed Grain)	10 tons/hr	Cyclone (2494 cfm) whelescoping chute
3.	Natural Gas Boilet/York Shipley	7.7 MMBTUM	None
4.	Grain Drying/Shanzer Model M20	11 tons/hr	Stationary chute/closed
6.	Grain Cleaning	# tons/hr	Cyclone (3690 cfm)
6.	Grain Milling		
	- Roller mill Memos 18" x 30"	5 tons/hr	Cyclone (1500 cfm)
	- Hammer mill Prater Elue Streek SAL	6 tons/hr	Cyclone (1000 cfm)
7.	Pellet Cooler/California Pellet Mill	4 tons/hr	Cyclone (1000 etm)
8.	Bulk Loading (Grain Shipping)	50 tons/hr »	Telescoping chute
9.	Bulk Loading (Feed Shipping)	5 tons/hr	Telescoping chute

Equity #2 - Grain and Fertilizer Elevator

	Process/Equipment	Maximum Process Rate	Control Equipment
1.	Bulk Unloading (Grain Receiving)	90 tons/hr	Stationary chute
2.	Grain Drying/Huma Model 2110	20 tons/hr	Stationary chute
3.	Bulk Loscing (Grain Snipping)	90 tons/hr	Telescoping chute
4.	Bulk Unloading (Fertilizer)	30 tons/hr	Stationary chute/closed system
. 5.	Bulk Loacing (Fertifizer)	15 tons/hr	Stationary chute with cust sock

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SECTION II: Limitations and Conditions

A. Emission Limitations and Conditions:

- Equity Supply shall not cause or authorize emissions to be discharged into the
 outdoor atmosphere from any source installed after November 23, 1968 that
 exhibit en opacity of twenty percent! (20%) or greater averaged over six (6)
 consecutive minutes. This applies to the cyclone stack emissions from the seed
 grain unloading, seed cleaning, roller mill, hammer mill, and pellet cooler. (ARM
 16.8, 1404)
- Equity Supply shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed prior to November 23, 1968 that exhibit an opacity of forty percent 40%) or greater averaged over six (6) consecutive minutes. This applies to, but is not limited to, the building vents, loading and unloading chutes. (ARM 16.8.1404)
- 3. Equity Supply shall operate the Equity #1 and Equity #2 facilities so as not to cause or authorize emissions to be discharged into the atmosphere, from access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit opacity of five percent (5%) or greater averaged over six (6) consecutive minutes. This applies to fugitive emissions from any hauling, handling, loading, and unloading operation. (RACT)
- Equity Supply shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water antifor chemical dust suppressant as necessary to maintain compliance with the 5% opacity' limitation.
- Equity Supply shall operate and maintain all emission control equipment, identified in Section I.B as designed to provide the maximum control of air pollutants.
- 6. The hours of operation of the feed mill and seed cleaning plant (Equity #1) shall be limited to 20 hours per day and 1200 tons per day of grain throughput for all processes except for the grain drying process. The grain drying process ahall be limited to 24 hours per day and 4000 hours per year.
- The hours of operation of the feed mill, seed cleaning plant and grain dryer (Equity #1) shall be limited to 4000 hours per year.
- B. The hours of operation of the grain and fertilizer elevator (Equity #2) shall be limited to 18 hours per day and 1440 tons per day of grain throughput and 480 tons per day of fertilizer throughput. The grain drying process shall be limited to 24 hours per day and 3200 hours per year.

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Opacity shall be determined according to 40 CFR, Part 80, Appendix A. Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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- The hours of operation of the grain and fertilizer elevator and grain drying process (Equity #2) shall be limited to 3200 hours per year.
- B. Operational Reporting Requirement:

a. Annual

Equity Supply shall supply the Department of Health and Environmental Sciences Air Quality Bureau with an annual emission inventory for the following listed emission points. The annual emission inventory report must be submitted in writing to the department by March 1 of tha following calendar year. The emission inventories shall include the following production and emission inventory information:

Equity #1

1.	Bulk Unloading (Grain)	- Tons of grain received.
	_	- Total hours of unloading operation.
2.	Eulk Unloading (Seed)	- Tons of seed grain received.
	• .	- Total hours of unloading operation.
3.	Grain Drying	- Total hours of drying operation.
4.	Grain Cleaning	- Total hours of cleaning operation.
5.	Grain Milling (Roller mill)	- Total hours of milling operation.
6.	Grain Milling (Hammer mill)	- Total hours of milling operation.
7.	Peliet Cooler	- Total hours of pellet cooler operation
8.	Bulk Loading (Grain)	 Tons of grain shipped.
	_	- Total hours of loading operation.
9.	Bulk Loading (Feed)	- Tons of feed shipped.
	- -	- Total hours of loading operation.

Equity #2

1.	Bulk Unloading (Grain)	- Tons of grain received.
	-	- Total hours of unloading operation.
2.	Grain Drying	 Total hours of drying operation.
3.	Truck Bulk Loading (Grain)	- Tons of grain shipped.
	-	 Total hours of loading operation.
4.	Rail Bulk Loading (Grain)	- Tons of grain shipped.
		- Total hours of loading operation.
5.	Eulk Unloading (Fertilizer)	- Tons of fertilizer received.
		- Total hours of unloading operation
6.	Euik Loading (Fartilizar)	- Tons of grain shipped.
	*	- Total hours of loading operation.

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ъ, Daily

Equity Supply shall maintain records of daily production rates and daily hours of 1. operation for the following items listed in Section II.5.6:

Equity #1: Items 1, 2, 8, and 9.
Equity #2: Items 1, 3, 4, 5, and 6.
These records shall be available for inspection by the department and will be submitted to the department upon request.

Equity Supply shall maintain records of daily hours of operation for the following items listed in Section II.B.a.;

Equity #1: Items 3, 4, 5, 6, and 7.

Equity #2: Item 2.

These records shall be available for inspection by the department and will be submitted to the department upon request.

- Equity Supply shall keep these records as permanent business records for a minimum of five (5) years.
- Equity Supply shall provide an annual report identifying any days in which the limitations in Section 1.A.6, 7 and 8 are exceeded. The report shall be submitted by March 1 of each year.
- The department may require additional emissions testing on sources in the plant per ARM 16.8.704 Testing Requirements.
- D. Equity Supply must maintain a copy of the air quality suppliesion at the Kalispell Equity Supply main office and make that copy available for inspection by department personnel
- ٤. Equity Supply shall comply with all other applicable state, lederal and local laws and regulations.

Section III: General Conditions

- Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions
- Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- Enforcement Violations of limitations, conditions and receivements contained herein may constitute grounds for penalties.

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> STATE OF MONTANA AIR QUALITY ATROL IMPLE ATION PLAN

subject:

Flathead County Air Quality Control

Program

Analysis of Conditions

Equity Supply Company

1. Introduction/Process Description

Equity Supply operates an existing feed mill and seed cleaning plant known as Equity #1, located on West Montana and 3rd Avenue North and a grain and fertilizer elevator known as Equity #2, located on Center Street and 5th Avenue West, both located in the city limits of Kaispell, Montana.

The Equity #1 facility receives and ships grain and also manufactures feed. At this facility, grain is received from the grower in trucks. The grain is either back dumped or bottom dumped into a hopper and the grain then gravity flows into the boot of the bucket elevator. Once the grain has been dumped it is handled within a closed system. The grain is then elevated by a bucket type elevator and directed into a storage bin. If the grain has a high moisture content it is dried to prevent mold. If the grain is shipped, it is re-elevated and then gravity feed into rail cars. A telescoping chute is used to reduce particulate emissions and damage to the grain as it flows into the rail car.

Grain used for the manufacturing of feed is gravity fed directly from the overhead bins to processing equipment, mixer then bagging or bulk loaded. The equipment used in the manufacturing of the feed are the Memoo 18" x 30" Roller Mill, Prater Blue Streak 6AL Hammer Mill, and a California Pellet Mill Model 2GA. The emissions from these processes are controlled by three separate cyclones.

Equity #1 also receives seed grain from the grower for cleaning. The seed grain is vacuumed out of the truck using a telescoping chute and cyclone. The seed is then cleaned using a separate cyclone and stored in a bin until the entire load has been unloaded and cleaned. The storage bin of clean seed is then loaded back into the truck through a telescoping chute.

The Equity #2 facility receives and ships grain and fertifizer. At this facility, grain is received from the grower in trucks. The grain is either back dumped or bottom dumped into a hopper and the grain then gravity flows into the boot of the bucket elevator. Once the grain has beer dumped it is handled within a closed system. The grain is then elevated by a bucket type elevator and directed into a storage bin. If the grain has a high moisture content it is dried to prevent mold. When the grain is shipped, it is re-elevated and then gravity feed into rail cars. A telescoping chute is used to reduce particulate emissions and damage to the grain as it flow into the rail car.

At the fertilizer plant, bulk granular fertilizer is off-loaded from rail cars, elevated and stored in flat bins. When needed it is removed from the bins by a Bobrat, put in a scale, transferred by conveyor to the blender, re-elevated and gravity fed into the truck or trailer. The firtilizer is loaded through a stationary chute with a sock to reduce particulars emissions.

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II. Applicable Rules and Regulations

- A. ARM 16.8.821, Ambient Air Quality Standards for PM-10: This section requires that the 24-hour and annual average concentrations of FM-10 in the ambient air not exceed the set standards. (See Section V)
- 8. ARM 16.8, Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborne. This section requires reasonable
 precautions for fugitive emissions sources and Reasonably Available Control
 Technology (RACT) for existing fugitive sources located in a nonattainment are.
 The department, in consultation with EPA, has determined that the use of
 chemical stabilization or paving on major haul roads will satisfy these
 requirements.
 - ARM 16.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% for all stacks or vents installed after November 23, 1968 and 40% for all stacks or vents installed orior to November 23, 1968.

III. RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implementation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reesonably available control technology (RACT). Since the Kalispell area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Process Particulate Stack Emissions

A cyclone would provide the reasonable level of perticulate control (90%). Equity Supply currently uses a cyclone for particulate control from the seed grain unloading, seed cleaning, roller mill, hammer mill, and pellet cooler. The department has determined that the cyclones will constitute RACT for these sources.

B. Process Fugitive Emissions

The only process emission points not controlled by the cyclone control system will be the grain and fertilizer unloading and loading. The fugitive particulate emissions from these point sources will be controlled through the use of telescoping loading chutes, stationary chutes with a dust sock, or by minimizing the product drop height during product loadout. The department has determined that these control magaines constituted RACT for these sources in this case.

C. Fugitive Road Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization.

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION FLAN

Flathead County Air Quality Control Program

IV.	Emissions	Inventory

	Total	Facility I	missics			
Annual Emission Rates (Altouable)			tse	#/Yesr		
Source	187	PM- 10	MOx	VOC	co	\$0x
Equity #1(4000 hrs/yr) Equity #2(3200 hrs/yr)	294.14 334.68	77.18 85.06	3.38 0.00	0.27 0.00	0.68 0.00	0.00
Jotal Emissions	630.82	162.24	3.38	0.27	0.68	0.02
Dally Emission Rates (Allowable)			{b	s/day		
Source	157	PM-10	WOX	VOC	co	\$0x
Equity #1 Equity #2	2070.07 3478.80	774.51 868.20	18.49	1.48 0.00	3.70 0.00	0.11
Total Enlasions		1642.71	18.49	1.48	3.70	0.11
		Equity #1 Feed Rill	and Seed (ileaning P	lant	
Annual Emission Rates (Altowable) *				sra/year		
Source	TSP	PM- 10	MOx.	VOC	to	SCX
Bulk Unicading (Grain Receiving) Bulk Unicading (Reed Grain) Magural Gas Boiler	72.00 12.00 0.47	0.47	3.38	0.27	0.68	0.02
Grain Drying Grain Cleaning Grain Milling	15.40 9.40 0.46	0.81				
Pellet Coolers Elevator Legs (Hemdhouse) Butk Leading (Grain Shipping)	0.16 \$80.00 7.50 0.75	27.60 3.25				
Butk Loading (Feed Shipping) Total Emissions	294.14		3.38	0.27	86,0	0.02
* Based on operating 4000 hours/yo	MAT.					
Daily Emission Rates (Allowable)				lbs/day		
Source .	75	P PM-10	ROX	voc		\$0x
Bulk Unleading (Grein Receiving) Bulk Unleading (Seed Grain)	720.0 120.0 2.5	0 60.00	18.49	1,48	3,70	0.11
Matural Gas Boiler Grain Prying Grain Cleaning	184,8 \$4.0 4.6	0 29.00 0 8.10		,,,,		
Grein Hilling Pellet Costers Elevator Legs (Heedhouse) Buit Loading (Grein Shipping)	1.6 1800.0 75.0	0.80 0 276.00 0 32.50				
Butk Leading (Feed Shipping)	7.					0.11
Total Emissions	2970.	07 174.5	1 18.49	1,48	3.70	U, 11

ee gazed on-all processes except grain dryer operating 20 hours/cay. Based on grain dryer operating 26 hours/day.

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Bulk Unloading (Grain Receiving)

Process Rate: 60 tens/hr Hours of operation: 4000 hr/yr 20 hrs/cay

TEP Emissions:

Emission Factor: 0.6 tbs/ton (AFSEC 3-02-006-05, page 60) Control Efficiency: 0% Celculations: 0.50 ibs/ton * 60.00 tons/hr * 36.00 lbs/hr 34.00 lbs/hr * 4000 hr/yr * 0.0005 cons/to * 72.00 tons/yr 72.00 tons/yr * (1.00 - 0.000) * 72.00 tons/yr 36.00 lbs/hr * 20 hrs/day * (1.00 - 0.00) * 720.00 lbs/day

PH-10 Enisations:

Emission Factor: 0.3 lbs/sc: (Fisco 3-02-00-00, p.y. 00)
Control Efficiency: 0%
Celculations: 0.300 lbs/ton * 60.00 tens/hr = 18.00 lbs/hr
18.00 lbs/hr * 4000 k//yr * 0.000% tens/lb = 36.00 tens/yr
36.00 tens/yr * (1.00 - 0.000) = 36.00 tens/yr
18.00 lbs/hr * 20 krs/dsy * (1.00 - 0.00) = 360.00

Bulk Unloading (Seed Crain)

Process Rate: 10 tons/hr Hours of operation: 4000 hr/yr 20 hrs/cay

TSP Enissions:

Enission factor: 0.6 ibs/ton (AFSECC 3-02-006-03, page 80)
Control Efficiency: 0% (Transfer cyclone)
Calculations: 0.40 ibs/ton* 18.00 ters/fr = 6.00 ibs/fr
6.00 ibs/fr = 6.00 he/pr = 0.0005 tons/fib = 12.00 tens/yr
12.00 tens/yr = 1.10 = 0.0003 tons/ibs = 12.00 tens/yr
6.00 ibs/hr = 20 hrs/day = (1.00 = 0.003 = 120.00 tens/day

PH-10 Emissions:

Emission factor: 0.3 lbs/ton (AFSECE 3-02-006-05, page 20) Control Efficiency: 0X (framefar systems) Calculations: 0.300 lbs/ton * 10.00 tons/hr = 3.00 lbs/hr = 4.00 kr/yr * 0.005 tons/hr = 6.00 tons/yr = 0.005 tons/hr = 6.00 tons/yr = 0.005, stons/lb = 6.00 tons/yr = 0.000, * 6.00 tons/yr = 0.000 lbs/hr = 20 hrs/day * (1.00 = 0.00) = 40.00 lbs/day

Matural Gas Boiler

ISP Emissions:

Emission factor: 12.0 http://ord.int.gus.CAP-42, 3.4-1) Control Efficiency: OE Fuel Communition: 67.30 lone (175/y) - (Information From company) Calculations: 67.30 * 10ne ft/3/yn * 14 (ba/fore ft/3 pas * 8.005) tone/ib = 0.07 tone/yn

PH-10 Enteriors:

Refssion Factor: 13.8 $\ln / 10^{\circ}$ ft⁻³ gas (AP-42, 1.4-1) Control Efficiency: 0X Fuel Consumption: 47.50 10⁻⁴ ft⁻³/yr (Information from company) Calculations: 87.50 × 10⁻⁴ ft⁻³/yr × 16 $\ln / 10^{\circ}$ ft⁻³ gas × 0.0005 tons/th + 0.47 tons/yr

NOX Emissions:

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Fl. Licau County Subject: Air Quality Control Program

VOC Existions:

Emission Factor: 8 lbs/10°6 ft13 pas (AP-62, 1.4-1)
Control Efficiency: 0%
Fuel Communition: 67.50 lc2 ft13/yr (Information from company)
Calculations: 67.50 ° 10°6 ft13/yr * 8 lbs/10°6 ft13 pas * 0.0005 ters/lb = 0.27 tens/yr

CO Emissions:

Emission Factor: 20 lbs/10°6 ftr3 gas (AP-62, 1.4-1) Control Efficiency: OXFuel Consumption: 67.50 10°6 ftr3/yr . (Information from company) Calculations: 67.50 * 10°6 ftr3/yr * 20 lbs/10°6 ftr3 gas * 0.0005 tcms/tb = 0.66 tons/yr

Emission Factor: 0.6 (bs/10°6 ft°3 see CAP-42, 1.4-1)
Control Efficiency: 0X
Fuel Consumption: 67.50 10°6 ft°3/yr (Information from company)
Calculations: 67.50 10°6 ft°3/yr * 0.6 (bs/10°6 ft°3 see * 0.0005 time/(b = 0.02 tons/yr

Grain Drying

Process Rate: 11.00 tons/hr Hours of operation: 4000 hr/yr 24 hrs/day

ISP Emissions:

Emission Factor: 0.7 lbs/ton (AFSEC 3-02-006-04, page 50)
Control Efficiency: 0%
Calculations: 0.70 bbs/ton * 11.00 tons/hr = 7.70 lbs/hr
7.70 bbs/hr * 0.000 hr/yr * 0.0005 tons/lb = 15.40 tons/yr
15.40 tons/yr * (1.00 - 0.000) = 15.40 tons/yr
7.70 lbs/hr * 26 Ars/day * (1.00 - 0.00) = 124.20 lbs/day

PH-10 Existions:

Emission Factor: 0.11 lbs/ton (AFSICC 3-02-006-04, page 80)

Lontrol Efficiency: 0%
Calculations: 0.110 lbs/ton * 11.00 tons/hr = 1.21 lbs/hr
1.21 lbs/hr = 4000 hr/yr 0.8005 tons/lb = 2,42 tons/y2.42 tons/yr 0.100 - 0.000 = 2.42 tons/y1.21 lbs/hr = 24 hrs/dsy * (1,00 - 0.00) = 29.04 lbs/cay

•

Grain Cleaning

Process Rate: 9.00 tome/hr Noure of operation: 4000 hr/yr 20 hrs/day

TSP Existinat

Laisaion Factor: 3 ltm/ton (AFSSCC 3-02-006-03, page E0)
Control Efficiency: 902 (Cyclone)
Calculations: 9.00 tons/hr 3.00 lbm/ton = 27.00 lbm/hr
27.00 lbm/hr = 4000 hr/yr = 0.0005 tons/lb = 54.00 tons/yr
54.00 tons/yr = (1.00 - 0.900) = 5.40 tons/yr
27.00 lbm/hr = 20 hrs/dey = (1.00 - 0.60) = 54.00 lbm/cay

PM-10 Enissions:

Entasion Factor: 0.45 lbs/ton (AFSSCC 3-02-006-03, page 80)
Control Efficiency: 902 (Cyclone)
9.00 tons/the 0.45 lbs/ton 4.05 lbs/th
Catculationss 9.00 tons/the 0.45 lbs/ton 4.05 lbs/th
4.05 lbs/hr = 4.000 hr/yr * 0.0005 tons/th 8.10 tons/yr
8.10 tons/yr * (1,00 - 0.900) = 0.81 tons/yr
4.05 lbs/hr * 26 hrs/dsy * (1,00 - 0.90) = 8.10 lbs/dsy

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN

Flathead County Air Quality Control Program

Grain Willing

Process Eate: 11.00 tonathr hours of operation: 4000 hr/yr

TSP Emissions:

PH-10 Emissions:

Emission Factor: 0.103 lbs/tor (Aff3EC 3-02-008-013, page 26) Easurer Std of 129; Control Efficiency: 90% (Options) (Options) (Calculations: 0.102 lbs/tor *11.02 bs/s/r * 1.10 lbs/r * 1.1

Pailet Coolers

Arctess Rate: 4.00 tons/hr Rours of operation: 4000 hr/yr 20 hrs/dry

112 Emissions:

Emission Factor: 0.2 the/tim (LffSEC 3-02-008-16, page BA)
Control Efficiency: 90% (Dyctome)
Celculatione: 0.20 the/sen * L.D2 tons/hr = 0.86 the/hr
0.80 the/hr * (LGO hr/yr * 0.0005 tons/h = 1.60 tons/yr
1.60 tons/yr * (1.00 - 0.50) = 0.86 tons/h = 1.60 tons/yr
0.80 the/hr * 20 ars/day * (1.00 - 6.99) = 1.60 tons/cay

PK-10 Emissions:

Enission Factor: 0.1 lbs/ton (AFSECT 3-02-008-16, page 84) (Assumes 30% of 759)
Control Efficiency: 90% (Cyclome)
Calculations: 0.100 lbs/ton 4.CV browship = 0.40 lbs/hr
0.100 lbs/hr 4.CV br/yr * 0.0005 tome/tb = 0.22 tome/yr
0.100 lbs/hr 4.CV br/yr * 0.0005 tome/tb = 0.22 tome/yr
0.100 lbs/hr 4.CV br/yr * 0.0005 tome/tb = 0.22 tome/yr
0.100 lbs/hr 4.CV br/yr * 0.0005 tome/tb = 0.22 tome/yr

Elevator less (gradiouse)

Process Este: 60.00 tons/h:
Kours of operation: 4000 hr/yr 20 hrs/csy

157 Enissions:

Existion Factor: 3.5 (be/for CAFSICE 3-02-006-08, page 80)
Control Efficiency: 03
Calculations: 1.50 (be/for * 63.50 (tra/hr * j0.00 (bs/hr 90.00 (bs/hr 4000 hr/yr * 0.000 (tos/hr 40.00 kone/yr 41.00 - 0.00) * 180.00 kone/yr 41.00 - 0.00) * 180.00 (tos/hr 40.00 (tos/hr 40.00) * 1800.00 (bs/hr 40.00) * 1800.00 (bs/day)

P4-10 Enissipres

Emission Factor: 0.23 (bazion CAffeld 3-02-004-03, page 80)
Control Efficiency: 02
Calculations: 0.230 (bazion * ad.00 tona/ar = 13,80 baziar
13.60 (baziar * 4600 hazyar * 0.000 tona/10 * 27,40 tona/yr
27.40 tona/yr = (1.00 - 0.00) = 27,40 tona/yr
13.10 (baziar * 20 haz/day * (1.00 - 0.00) = 274,00 lbaz/day

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Chapter 15

STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN

Subject:

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Bult Loading (Grain Shipping)

Process Race: 50.00 tys/hr Hours of operation: 1000 hr/yr 20 hrs/day

TSP Emissions:

PM-10 Enissions:

Emission Factit: 0.13 lbe/ton CAFSCC 3-02-006-06, page 20)
Control Efficiency: 75% (Telescoping shute)
Calculations: 1.13 lbe/ton * 50.00 tons/yr = 4.50 lbe/hr
4.50 lbe/hr * 4.000 hr/yr * 0.0005 tons/lb * 13.00 tons/yr
13.00 tons/yr * (1.00 - 0.75) * 3.25 tons/yr
5.30 lbs/hr * 20 hrs/day * (1.00 + 0.75) * 32.50 lbs/day

Bulk Loading (Feed Shipping)

Process Rate: 5.00 tvs/mr Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Fattur: 0.30 bbs/ton (AFSSCC 3-02-006-C6, page 20) Control Efficiency: 75% (Telescoping chute) Calculations: 3.30 bbs/ton * 5.00 tens/pr * 1.50 bbs/hr * 1.50 bbs/hr * 0.000 hr/yr * 0.005 toms/b = 3.00 tons/yr * 0.00 tons/yr * 0.005 tons/pr * 0

PH-10 Emissions:

Emission Fatter: 0.13 lbs/ton (AFSSCC 3-02-006-06, page 20)
Control Efficiency: 75% (Telescoping chute)
Calculations: 2.13 lbs/ton * 5.00 tens/h * 0.45 lbs/hr
0.45 lbs/hr * 4.000 hr/yr * 0.005 toms/lb * 1.30 tens/yr
1.30 tens/yr * (1.00 - 0.75) = 0.33 tens/yr
0.45 lbs/hr * 20 hrs/day * (1.00 - 0.75) = 3.25 lbs/day

Equity #2 Grain and Fertilizer Elevator

Annual Emission Rates (Allowelle) •

Attack Printers and Continuents			To	ns/iesr		
Source	TSP	PM-10	HOX	VOC	50	\$OX
Bulk Uniceding (Grain Receiving)	86,40	43.20				••••••
Grain Orying	22.40	3.52				
Elevator Legs (Neachouse)	216.00	33.12				
Bulk Loading (Grain Shipping)	10.80	4.68				
Bulk Unloading (Fertilizer)	0.96	0.48				
Bulk Loading (Fertilizer)	0.12	D.06				
•	********	• • • • • • • • • • •		••••••	• •	
Total Emissions	336.68	85.06	0.00	0.00	C.00	0.00

[.] Based on operating 3200 hours, year.

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STATE OF MONTANA
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fally Intation Bates (Allowebles -ibs/cay 0 MOX YCC 65 Sós 159 Pm-10

£64.00 432.00

938.00 52.80

2140.00 331.20

108.00 46.80

9.60 4.80

1.20 8.60 Buta Uniceding (Grain Receiving) Crain Drying Lawstor Lugs (Heachouse) Luk Loeding (Grain Shipping) Butk Unleading (Fartilizer) Luth Lieding (Fertilizer) 0.00 0.00 0.00 0.cs Total Inissigns 3478.80 868.20 - lasted on operating all processes except grain drying 16 hours/day. last on operating grain drying 24 hours/day. Buth Chicating (Grain Receiving) Process Aute: 90 tons/hr Fours of operation: 3200 hr/yr 16 hra/day 159 Enlesions: Emission factor: 0.6 [bs/trn (AFSSCC 3-02-036-05, page 80)
Control [fficiency: 03
Calculations: 0.60 [bs/trn * 50.06 [cons/hr = 34.00 [bs/hr = 3200 hr/hr * 0.0005 [cons/hr = 86.60 [cons/hr = 34.00 [bs/hr * 3280 hr/hr * 0.0005 [cons/hr = 86.60 [cons/hr = 4.00]]
86.60 [cons/hr * 1.56 hrs/dey * (1.00 = 0.00)] 286.60 [bs/day P4-10 Exissions: Emission Factor: 0.3 lbs/ton (AFSECT 3-02-004-05, page 80)
Control Efficiency: 0%
Calculations: 0.500 lbs/ton = 90.00 toms/hr = 27.00 lbs/hr = 200 fbs/hr = 200 f Stale trying Process Mate: 20 tons/hr Hours of operation: 3250 hr/yr 24 hrs/day TIP Emissions: Emission Factor: 0.7 (be/ton: CAFSECC 3-02-006-04, pege 8C)
Centrel Effic energy: 0%
Calculations: 20.00 tons/hr * 0.70 (be/ton = 16.00 (bs/hr
14.00 (bs/hr * 3200 hr/yr * 0.0005 tons/b = 22.40 tons/yr
22.40 tons/yr * 0.000 = 0.000) = 22.40 tons/yr
16.00 (bs/hr * 26 hrs/day * 0.000 = 0.000) = 336.00 (bs/sc.) 75-10 Enlastons: Enission Factor: 0.11 lbs/ton CAFSSCC 3-02-006-04, page 80)
Control Efficiency: 0%
Caiculations: 20.00 tons/hr * 0.11 lbs/ton = 2.20 lbs/hr
2.20 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 3.32 tons/yr
3.20 lbs/hr * 24 hrs/day * (1.00 - 0.00) = 52.80 lbs/day
2.20 lbs/hr * 24 hrs/day * (1.00 - 0.00) = 52.80 lbs/day Elevator Legs (Heacheuse)

> Process Rate: 90 tons/hr Pours of operation: 3250 br/yr 36 hrs/day

> > Final Stoutetion: \$/17/53

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TSP Emissions:

Emission Factor: 1.5 lbs/ton (AFSSCC 3-02-006-08, page 80)
Control Efficiency: 0%
Calculations: 90.00 toms/hr = 1.50 lbs/ton = 135.00 lbs/hr
155.00 lbs/hr = 9200 hr/yr = 0.0005 toms/lb = 216.00 toms/yr
216.00 tom/yr = (1.00 - 0.000) = 216.00 toms/yr
135.00 lbs/hr = 16 hrs/day = (1.00 - 0.00) = 216.00 lbs/day

PR-10 Inissions:

Emission Pactor: 0.23 lbs/ton (AFSSCC 3-02-006-06, page BC) Control Efficiency: 0% Calculations: 90.00 tom/hr = 0.23 lbs/ton = 20.70 lbs/hr 20.70 lbs/hr = 3200 hr/yr = 0.0001 tocs/lb = 33.82 toms/yr 33.12 toms/yr = 0.0001 = 33.12 toms/yr 20.70 lbs/hr = 16 hrs/dey = (0.00 - 0.00) = 331.20 lbs/cay

Julk Leading (Grain Skipping)

Process Rate: 90 tons/hr Hours of operation: 3200 hr/yr 16 hrs/day

TSP Taissions:

Taission factor: 0.3 tbs/ton (AFSSCE 3-02-000-06, page 20)
Control Efficiency: 75% (feleacoping shuta)
Calculations: 0.30 tbs/ton * 90.00 cong/hr = 27.00 tbs/hr 27.00 tbs/hr * 27.00 tbs/hr * 27.00 tbs/hr * 27.00 tbs/hr * 3200 hr/yr * 0.0005 tong/hb * 45.20 tens/yr 45.20 tens/yr 45.20 tens/yr 45.20 tens/yr 45.20 tbs/hr * 16 hrs/day * (1.00 - 0.75) = 102.00 tbs/day

PH-10 Emissions:

Eaission Factor: 0.13 lbs/tcn CAFSCC 3-02-006-06, page 80)
Control Efficiency: 73% (letescoping chute)
Calculations: 0.130 lbs/tcn = 90.00 tows/rr = 11.70 lbs/hr = 11.70 lbs/hr = 3200 hr/pr = 0.0005 tows/tb = 18.72 tons/yr = 18.72 tons/yr = (1.00 - 0.75) = 6.68 tons/yr = 6.875 lbs/hr = 16.70 lbs/hr = 16.7

Bulk Uniceding (Fertilizer)

Process Rate: 30 tons/hr Hours of operation: 3200 hr/yr 16 hrs/day

TSP Emissions:

PH-10 Emissions:

Emission Factor: 0.01 ibs/ten (AFSECT 3-01-027-09, page 48)
Control Efficiency: 02
Calculations: 0.000 lbs/ten * 30.00 lbs/hr = 0.30 lbs/hr = 3200 hr/yr * 0.0005 lbs/hr = 0.68 lons/yr
0.00 tons/yr * (1.00 - 0.00) = 0.68 lbs/lbs/lbs/lbs/hr = 0.50 lbs/hr = 16 hrs/lbs/r * (1.00 - 0.00) = 4.62 lbs/cay

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STATE OF MONTANA
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IMPLIFICATION PLAN

eduject:

Flathead County Air Quality Control Program

Bulk Loading (fertilizer)

Process Reter 15.00 tons/hr kours of operation: 3200 hr/yr 16 hrs/day

ISP Emissions:

Exission Factor: 0.02 bbs/ton (AFSSCC 3-01-027-09, page 42)
Control Efficiency: 75% (Stationary chure with chast seck)
Calculations: 0.02 bbs/ton * 15.00 tons/hr = 0.30 bbs/hr
0.30 bbs/hr * 3200 hc/yr * 0.0005 tons/bb = 0.42 tons/yr
0.44 tons/yr * (1.00 - 0.750) = 0.12 tons/yr
0.30 bbs/hr * 16 hrs/day * (1.00 - 0.75) = 1.20 bbs/day

PM-10 Emissions:

Emission Factor: 0.01 (bs/ton GAFSEC 3-01-027-09, psgs 43)
Control Efficiency: 75% (Stationery chute with dust sock)
Calculations: 0.010 (bs/ton = 15.00 tons/hr = 0.13 bs/hr
0.15 (bs/hr = 3200 hr/yr = 0.005 tons/hr = 0.24 tons/yr
0.24 tons/yr = 0.10 - 0.759) = 0.06 tons/yr
0.15 (bs/hr = 16 hrs/day = (1.00 - 0.75) = 0.60 tons/yr

V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 Stata Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which Identifies contributors based on actual area and Industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA required the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if Individual sources are operating at their maximum allowable emission cates.

After an analysis, the department determined that emission limitations applicable to the Equity Supply facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Equity Supply facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) Indicated that the facility contributed significantly to the PM-10 concentrations in the Kalispell nonattainment area.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for the Equity Supply facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAOS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

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With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressent) for haul road dust and restrictions on annual operating hours, the Equity Supply facility should be able to operate at maximum design rates

Kalispell and Evergreen Nonattainment Boundaries

and remain in compliance with the stipulated emission limitations.

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5348000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 704000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5338000mN, east to 704000mE, 5338000mN, south to 704000mE, 5338000mN, south to 704000mE, 5338000mN, south to 704000mE, 5338000mN, west to 702000mE, 5335000mN, west to 702000mE, 5335000mN, orth to 702000mE, 5335000mN, orth to 700000mE, 5335000mN, north to 700000mE, 5340000mN, north to 700000mE, 5345000mN, north to 70000mE, 5345000mN, north to 7000

VI. Environmental Assessment

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

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Flathead County
Air Quality Control
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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogswell Building, Helena, Montana 5962C (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Equity Supply Company, Air Quality Stipulation for Kalispell S.P.

Description of Project: Equity Supply Company operates an existing feed mill and seed cleaning plan known as Equity #1, located on West Montana and 3rd Avenue North and a grain and fertilizer elevator known as Equity #2, located on Center Streat and 5th Avenue West, both located in the cit, limits of Kalispell, Montana. The Equity #1 facility receives and ships grain and also manufactures feed. The Equity #2 facility receives and ships grain and fertilizer.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health at Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emissic sources and makes enforceable emission limitations, hours of operation, and the operation of control equipment and techniques which, when considered with similar limitations on other Kalispell area sources, will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider. No reasonable alternatives exist.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency. A list of enforceable conditions are contained in a signed stigulation.

Recommendation: An EIS is not required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The amissions from this plant will not change. This action makes the control equipment, control techniques, and limitations on operating hours at the plant enforceable and assures that the emissions from this facilit when considered with similar emission limitations at other sources will aπain the PM-10 NAAOS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None.

individuals or groups contributing to this EA: Department of Health and Environments' Sciences, $A^{\rm tr}$ Quality Bureau.

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EA prepared by: Michael Glavin Date: August 4, 1993

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STATE OF MONTH. ATT QUALITY CONTROL IMPLEMENTATION PLAN

subject: Flathead County Air Quality Control Program

Potent at Impact on Physical Environment

		Mejor	Moderate	Minor	None	Unknows	Comments Attaches
١	Terrestrial and Aquabo Life and Hasitate				×]	
2	Water Guskry, Quantity and Districution				x		
3	Geology and Sail Quality, Stability and Mointure				×		
4	Vagetetion Cover, Quentity and Copilty				×		
5	Assthetics				x		
6	Air Quality			x			
7	Unique Endangerad, Fragila or Limsted Environmental Resource					x	
8	Damands on Environmental Rescurss of Water, Air and Energy			j	×		
9	Pretorical and Archaeological Sites					x	
10	Cumulative and Secondary impacts			×	1		

Potential Impact on Human Environment

		Mejor	Moderate	Miner	None	Unknown	Anemants Anaema
3	Social Structures and Mores				×		
2	Cultural Uniqueness and Diversity				×		
3	Local and State Tax Base and Tax Revenue		;		x		
4	Agricultural or Industrial Production				×		
6	Human Hestiti				×		
1	Access to and Quality of Recreational and Wilderness Activities				x		
7	Quantity and Distribution of Employment				X		L
ı	Distribution of Population				x		
*	Damenda for Government Services				×		
10	Industrial and Commercial Activity				x		
11	Lecally Adapted Environmental Plens and Gaela			x			
12	Cumulative and Secondary Impacts				x		

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THE STATE OF MONTANA

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Air Quality Control Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of)
Flathead Road Department,)
Kalispell, Montana, with 40 CFR)
50.6, National Ambient Air)
Quality Standard for Particulate)
Matter and ARM 16.8.821, Montana)
Ambient Air Quality Standard for)
PM-10

STIPULATION

The Department of Health and Environmental Sciences

("Department"), and Flathead Road Department ("Flathead

Co."), hereby stipulate and agree to all the following Para
graphs 1-18 inclusive, including the exhibits as referenced

below, in regard to the above-captioned matter and present

the same for consideration and adoption by the Board of

Health and Environmental Sciences ("Board"):

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A. BACKGROUND:

1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter, (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("partitulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as

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Subject: Flathead County

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amended by the Clean Air Act Amendments of 1990 ("Act").

- 2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate ratter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration). ARM,16.8.821 ("PM-10 MAAQS").
- 5. On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Federal Clean Air Act of all Group I areas, including Kalispell, are designated by operation of law to be in non-attainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(3), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 751Ja(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- 5. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell monattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAQS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. The implementation plan relied upon the receptor modeling technique known as chemical mass balance (CHB) to identify the major emission sources contributing to moncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition project, and barren ground.
- 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A major

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deficiency identified by ZPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demonstration of attainment.

- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The department has determined that emission limitations applicable to Flathead Co. were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the

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results of this modeling, the PM-10 emissions from Flathmad Co. were identified as a significant contributor to ambient levels of PM-10 in the Kalispell monattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for Flathmad Co. are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Flathmad Co. and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, both parties agree that revised emission limitation must be imposed upon Flethmad Co.

14 B. BINDING EFFECT

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26 27 12. The parties to this Stipulation agras that any such emission limitations placed on Flatheed Co. must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Flathead Co. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Flathead Road Department") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves

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1 it or if future violations of the particulate matter NAAQ3 or 2 FM-10 standard MAAQS occur, this Stipulation may be renegoti-3 sted and made enforceable through an associated Board Order 4 or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Board is the state agency that is primarily responsible for the development and implementation of the 8 State Implementation Plan under the Federal Clean kir Act. 9 Under Sections 75-2-101, gt seq., the Board is required to if $\frac{3}{2}$ protect public health and welfare by limiting the levels and 21 concentrations of air pollutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to affectuate compliance with anational and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell nonattainment area to neet the particulate matter NARQS and the PM-10 MAAOS, the Board has jurisdiction to require the impo-It sition of such limitations and conditions, and may adopt the 22 same as enforceable measures applicable to Flathead Co.

15. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75. Chapter 2, MCA, and 26 rules promulgated pursuant to statute.

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stipulation, and adopts the same as enforceable measures applicable to Flathead Co.

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14 FLATHEAD ROAD DEPARTMENT

 MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

BY Robert T. Robinson

Timothy R. Baker

20 DATE 8-25-97

DATE 2/15/93

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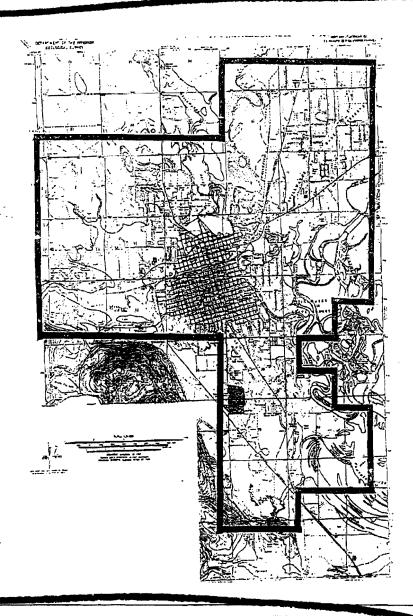
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EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

Flathead County Road Department P.O. Box 1102 Kalispell, MT 59902-1102

The above-named company is hereinafter referred to as "Flathead Co."

Section I: Affected Facilities

- A. Equipment: A portable 1973 Pioneer Duplex Model 50VE crusher (100 TPH), Seriet #303R-P-122 and a gravel screen.
- Original Location: Four Corners Pit (N¼, Sec 29, T26N, R21W, Flathead County).

Section II: Conditions

A. Operational

- All visible emissions from the crusher plant are limited to 20% opacity¹.
 (ARM 16,8.1404)
- Flathead Co. shall not cause or authorize to be discharged into the atmosphere from other equipment such as screens or transfer points any visible emissions that exhibit opacity! of 20%. (ARM 16.8.1401)
- Flathead Co. shall not cause or authorize to be discharged into the atmosphere from heal roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit opacity¹ of 5% or greater (RACT)
- Flathead Co. 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 5% opacity¹ limitation. (RACT)
- Water spray bars are required as necessary, if fugitive emissions are greater than 20% opacity.
- 6. Crusher production is limited to 100 tons/hour.
- The hours of operation of the gravel crusher is limited to 8760 hours per year.

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Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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- Total particulate emissions from this crusher in conjunction with total particulate emissions from any additional equipment at any individual site shall be less than 250 tons/year.
- Flathead Co. shall operate and maintain all emission control equipment and utilize all techniques specified in this stipulation to provide the maximum air pollution control for which they were designed.

B. Reporting Requirements

- 1. If this crushing plant is moved to another location, a Notice of Intent to Transfer Location of Air Quality Permit must be published in a newspaper of general circulation in the area to which the transfer is to be made. This notice must be published at least 15 days prior to the move. Proof of publication and a change of location form must be submitted to the Montena Department of Health and Environmental Sciences. Air Quality Bureau (AOE), prior to the move. These forms are available from the AOE.
- 2 Flathead Co. shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. These records shall be available for inspection by the AOB and will be submitted to the AOB upon request.
- Flathead Co. shall retain daily production numbers for a minimum of five (5) years.
- Annual production information shall be submitted to the AQB by March 1
 of the following calendar year. The information shall include:
 - a) Tons of gravel crushed.
 - b) Tons of gravel bulk loaded.
 - c) Hours of operation of the crusher,
 - d) Gallons of diesel used for generators.
 - 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;
 - (v) Vehicle weight, unloaded; v) Number of tires on vehicle;
 - vi) Average trip length;
 - vii) Number of trips per day;

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- viiii Average vehicle speed;
- ix) Area of activity; and
- vehicle fuel usage (gasoline or diesel) annual total.

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subject: Flathead County Air Quality Control Program

- f. Fugitive dust control for haul roads and general plant area:
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if applicable.
- C. The AQB may modify the conditions of this stipulation based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, predicted ambient impacts which would cause or contribute to violations of a NAAQS or PSD increment, etc.
- D. The department may require additional emissions testing on sources of emissions per ARM 16.8.704, Testing Requirements.
- E. Flathead Co. must maintain a copy of the air quality stipulation at the Kalispeli ready mix site and make that copy available for inspection by department personnel upon request.
- F. Flathead Co., shall comply with all other applicable state, federal, and local laws and regulations.

Section III: General Conditions

- A. Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, 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 stipulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- C. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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STATE OF MONTANA
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Analysis of Conditions Flathead County Road Department

. Introduction/Process Description

The affected facility is a portable 1973 Pioneer Duplax Model 50VE crusher (100 TPH), Serial #303R-P-122 and a gravel screen. This plant crushes gravel for use in construction, repair, and maintenance of roads and highways. The maximum process rate of the crusher is 100 tons/hour.

Flathead Co. operates three [3] gravel pits in or near the Kalispell nonattainment area. They move the Cedar Rapids gravel crusher between these pits in order to crush gravel used to produce asphalt for use in construction, repair, and maintenance of roads and highways. The Barber Greene DA 55 Hot Mix Plant is permanently located at the Steel Bridge Pit. The three gravel pit locations are:

Four Corners Pit (N.M., Sec 29, T28N, R21W, Flathead County); Sheepherders Pit (NW.W., Sec 15, T28N, R22W, Flathead County). Steel Bridge Pit (SEX., Sec 3, T28N, R21W, Flathead County).

If this crushing plant is moved to another location, including the Steel Bridge Pix or the Sheepherders Pit, a Notice of Intent to Transfer Location of Air Quality Stipulation must be published in a newspaper of general circulation in the area to which the transfer is to be made as required in Section II.B.1. Any such transfer will be subject to department review as described in Section II.C.

II, Applicable Rules and Regulations

- A. ARM 16.B, Subchapter 8, Ambient Air Quality, Including but not limited to:
 - ARM 16.8.821 Ambient Air Quality Standard for PM-10. This section states that no person may cause or contribute to concentrations of PM-10 in the ambient air which exceed the set standards.
- ARM 16.8, Subchapter 9, Prevention of Significant Deterioration This facility is not a PSD source since this facility is not a listed source and the potential to amit is below 250 tons our year of any pollutant.
- C. 16.9 Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborne. This section requires reasonable precautions for fugitive emissions sources and Reasonably Available Control Technology (RACT) for existing fugitive sources incated in a nonattainment area. The department, in consultation with EPA, has determined that the use of chemical stabilization or paving on major hauf roads will satisfy these requirements.
 - 2 ARM 16.8.1403 Particulate Matter, Industrial Process. This section states that no person shall cause, allow, or permit to be discharged into the outdoor atmosphere from any operation, process, or activity.

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particulate matter in excess of the amount determined by using the following equation:

Alloweble Emissions = 55 (100 tons/hr)¹¹ - 40 = 51.28 lbs/hr. The estimated total particulate matter emissions for the gravel crusher are 14.00 lbs/hr, therefore the source is in compliance.

- ARM 6.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% from all stacks constructed or altered since November 23, 1968.
- ARM 16.8.1423 Standards of Performance for New Stationary Sources (NSPS). This plant was constructed in 1973 so NSPS (40 CFR Part 60, general provisions, and Subpart OOO Non-Metallic Mineral Processing Plants) does not apply.

III. RACM/RACT Determination

Under section 189(e)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implamentation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispeii area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A. Crusher and Material Transfer Emission

A BACT analysis was conducted at the time of the original permit application #2716-00 and a determination had been made for controlling TSP and PM-10 emissions. The department has determined that BACT for this source is the application of water sprays as necessary to maintain compliance with the 20% opacity limitation. This applies to the crusher and all other equipment such as acceens or transfer points in which emissions exist.

The BACT determination made for this source is considered to met the RACT requirements since BACT is more stringent than RACT.

B. Fugitive Rosa Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

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IV. Emission Inventory

Portable Travel Crusher 1973 Pioneer Suplex Model 30 VE

301
0.38
0.55
•

* Based on operating 8760 hours/year.

Daily Emission Retes (Patential) **

*****			31	be/day		
Source	127	P#-10	WCX	VOC	Č0	1C1
1975 Pieneer Duplex Hodel 59 VE	336.00	60.00				
, Diesel Comerator	3.43	3,43	48.24	3.84	10.42	3.19
Serven	192.00	144.80				
Maxarial Trunsfer	69.60	11.36				
Pile farming: Stacker	312.00	144,00				
Su(1 Loading	48.00	5.76				
Baul Roads (Seily)	20.08	7.25				
Total Emissions	981,11	379.78	48.24	3.64	10.42	3,19

^{**} Based on operating 24 hours/day.

1975 Planer Duplex Rodel 50 VE

Process Rate: 100 tons/hr (haximum Process Rate) Rours of operation: \$760 br/yr

TSF Enissions:

geission Fector: 0.28 lbs/ton (aP-42, 8.19.2-1)
Control Efficiency: 50% (Water Sproy Ears or Resurally Met Material)
Calculations: 0.28 lbs/ton = 100 tons/for = 28.00 lbs/for = 28.00 lbs/for

PR-10 Emissions:

Emission Factor: 0.05 (bs/tom (Ratio basson 15F & PM-10 from AFSICC)
Control Efficiency: 503 (Water Spray Sers or Behavaily Met Historial)
Calculations: 0.050 (bs/tom * 100 tom/hr = 5.00 (bs/tom * 5.00 tom/hr = 5

Diesel Gamerator

Hours of operation: 8760 hr/yr '

TSP Emissions:

Emission Factor: 0.143 lbs/hr (4P-42, 3.3.2) Calculations: 0.143 lbs/hr * 8760 kr/yr * 0.0005 tons/lb * 0.63 tons/yr

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PH- 10 Saissigns:

Emission factor: 0.443 lbs/hr = LAP-42, 3.3.21 Calculations: 0.443 lbs/hr * 8760 Ar/yr * 0.0005 tona/lb * 0.63 tons/yr

BOS Emissions:

Emissian Fector: 2.01 lbs/hr (AP-62, 3.3.2) Calculations: 2.01 lbs/hr = 8760 hr/yr = 0.0005 tens/is = 8.80 tens/yr

VOC Entrators:

Emission factor: 0.160 bbs/hr (AP-42, 3.3.2)
Calculations: 0.160 bbs/hr * 8760 hr/yr * 0.0005 tons/(b * 0.70 tons/yr

CD Enissions:

Endasion factor: 0.434 lbs/hr (48-62, 3.3.2) Calculations: 0.434 lbs/hr * 8760 hr/yr * 0.0005 tons/th * 1.90 tons/yr

Emission Factor: 0.133 [be/hr - CAP-42, 3.3.23 Calmitations: 0.133 [be/hr + 8760 hr/yr + 0.0005 cons/to + 0.58 tons/yr

Street

Process Sate: 100 tons/hr (Hasimum Process Rate) Bours of operation: 8760 he/yr

ISP Enissions:

Emission Factor: 0.16 tbs/ton (AP-42, 8.19.1-1)
Rentrol Efficiency: 50% (User-Apray Bars or Baturally Wet Material)
Celtrissions: 0.16 tbs/ton * 100 tom/hr = 18.00 tbs/hr = 18.40 he/pr * 0.005 toms/to = 70.08 toms/yr
70.08 toms/yr * (1.00 - 0.50) = 35.06 toms/to = 70.08 toms/yr

PR-10 Enissions:

Emission Factor: 0.12 bbs/ton (AF-62, 2.19.1-1) Control Efficiency: 50% (Water Spray Bars on Historally Set Material) Calculations: 0.120 bbs/ton * 100 tans/fr = 12.00 bbs/fn * 1200 bbs/fn * 200 bbs/fn * 52.56 tons/yr * 52.56 tons/yr * 52.56 tons/yr * (1.08 - 0.50) = 26.20 tons/yr * 26.20 tons/yr * (1.08 - 0.50) = 26.20 tons/yr * (1.08 - 0.50)

Naturial transfer

Process Nate: 100 tons/hr (Maximum Process Bata) gours of operation: 8760 br/yr

TSP Emissions:

Emission Factor: 0.029 (be/ton: (AFSSCC, 3-05-023-03))
Control Efficiency: 0%
Calculations: 0.03 (be/ton: 100 tens/hr = 2.90 (be/hr = 2.90 (be/hr = 2.90 (be/hr = 12.702 tens/yr 12.70 tens/yr = 1.00 - 0.003 = 12.70 tens/yr

PH-10 Laisators:

Earlaion Factor: 0.0064 [be/ton [AFSCC, 3-05-025-05] Comings [Efficiency: 0% -Calculations: 0.006 [be/ton 4 180 tone/hr = 0.84 [be/hr | 0.64 [be/hr = 2.80 tone/yr - 0.005 tone/to = 2.80 tone/yr | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 |

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Chapter 15

STATE OF MONTANA ALP THITY CONTROL IMPLEMENTATION PLAN Subject: Flathead County Air Quality Control Program

Pile Forming: Stacker

Process Rate: 100 tons/or (Maximus Process Rate) Hours of operation: \$710 hr/yr

TER Emissions:

Emission Fector: 0.13 lbs/ton (AFSSCC, 3-05-025-05)
Control Efficiency: 0%
Calculations: 0.13 lbs/ton + 100 tens/hr = 13.00 lbs/hr
13.00 lbs/hr = 8760 hr/yr = 0.0005 tens/to + 56.94 tons/yr
56.54 tens/yr = (1.00 - 9.00) = 56.94 tens/yr

Pu-10 Emissions:

Emission Factor: 0.06 lbe/ton (AFSSCC, 3-05-025-05)

Control Efficiency: 0%

Calculations: \[\ldots\] \[\ldots

Buik Loading

Process Eate: 100 tons/hr (Maximum Process Rate) Hours of operation: \$750 hr/yr

TSP Emissions:

Emission Factor: 1.12 tes/con (AFSECC, 3-05-025-06)
Control Efficiency: 02
Calculations: 0.02 (button * 100 tons/Ar = 2.00 (bs/Ar = 2.00 bs/Ar = 2.0

P#-10 Emissions:

Emission Fector: 0.0024 lbs/ton (AFSEC, 3-03-025-06)
Control Efficiency: 05
Calcutations: 0.002 lbs/ton * 100 tons/nr * 0.24 lbs/hr
C.24 lbs/hr * 2760 hr/yr * 0.0005 tons/lb * 1.05 tons/yr
1.05 tons/yr * (1.00 * 0.00) * 1.05 tons/yr

Haul toods

Operating Moura: 8760 Moura/Tr Vehicle Miles Traveled: 2071 NG/Tr Control Efficiency is 50% for watering.

TSP Emission Factor is determined by the following equation:

Ex 5.9% (a/12)*(5/30)*(U/3)**0.7% (a/4)**0.5*P8

Where:
E= 13P Emission Factor in Lbs/Webicle Mile Treveled (VMT)
b= Partitle Sizing constant for TSP
a= 3ilt Content in percent
Sa Average Speed of Webicles in eph
We Average usight of vebicles in lone
yn Average usight of vebicles in lone
yn Average moment of Meets on vebicles
PR= Precipitation facts based on the faileming:
130 Days with more than .31 of Precipitation
PR= (365 days - 130 days):7(33 Days, a 0.6434

TSP Emissions:

159 Emission Factor: 4.55 Lbs/VMT

E(TSP)= (2074 VHT/YF)(4.35 Lbs/VHT)(0.5) E(TSP)= 4719 Lbs/YF er 2.36 Toms/YF

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STATE OF MONTHA AIR QUALITY CONTROL IMPLEMENTATION PLAN Subject: Flathead County Air Quality Control

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PRID Emission Factor is determined by the following equation:
                   E= 5.9%er(a/12)*(5/30)*1W/35**0.7%(w/4)**0.3**2
where:
E= PRIO Emission Pactor in Us/Vehicle Rile Preview (PRI)
e= Silt Content in percent
S= Average Speed of vehicles in roph
Um Average usight of vehicles in Tona
um Average usight of vehicles in Tona
PRE Precipitation tails based on the Tellewing:
130 Days with more than .31 of Precipitation
PR= (365 days - 130 days)/365 Days = 0.6438
PHID Enfasions:
                     MITO Emission Factor: 1.64 Lbs/MI
                           ECPH10)+ (2074 YH1/Tr)(1.64 LbE/WH1)(0.5)
ECPH10)+ 1899 LbE/Yr or 0.85 lone/tr
Haul Boach (Delly)
            Operating Hours: 8760 Hours/Ye Vahisic Niles Traveled: 2074 WHT/Tr Control Efficiency is 50% for watering.
                                                                                                                            (Based on Hasirum Process Rate)
            TSP Emission Factor is determined by the following equation:
                       En 5.9mk*(s/12)*(s/30)*(s/3)**0.7*(s/4)**0.5*PZ

Where:

En TSP Emission Factor in Lbs/Vehicle Nite Traveled (VNT)

In Percicle sizing constant for 159 5.2

so Sills Centent in percent 5.7

So Average to develotes in sph 10,0 oph

We Average uselfst af vehicles in Tons 12.0 Tor

so Average uselfst af vehicles in Tons 12.0 Tor

so Average welfst af vehicles in Tons 13.0 CCC

PER Assumes no precipitation vehicles 3.2 also

PER Assumes no precipitation 1.0CCC
                        TSP Emission Fectors F-07 Lbe/Wit
                                E(15F)= (2074 VMT/Tr)(Y.07 the/VMT)(0.5) 8(15F)= 7329 the/fr or 3.64 Tens/fr or 20.08 the/dey
              PHIO telesion factor is determined by the following equation:
                         E= 5.9"%=(a/12)"(8/30)"(W/3)"**0.7"(W/4)"**0.5"PR
Where:
                                       ere:
R- PHIO Enission Factor In Lbs/Vehicle Mila Trevaled (VMT)
R- Particle sizing constant for PMID
B- Silt Content in percent
S- Average Speed of vehicles in sph
UN- Average veight of vehicles in Tons
UN-Average maker of sheels in vehicles
PR- Assumes no precipitation

1,0000
  PHIS Emissions:
                       PHIG Emission Factor: 2.54 Lbs/HHT
                               E(PH103+ (2074 VH1/Tr)(2.54 Lbs/VH1)(0.5)
E(PH10)+ 2639 Lbs/fr or 1.32 tons/fr or 7.23 Lbs/dsy
```

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STATE OF MONTANA AIR QUALITY COVI IMPLEMENTION PLAN خطيري

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V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for perticulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled figitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA is now requiring the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable amission rates.

After an analysis, the department determined that emission limitations applicable to the Flathead Co. facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Flathead Co. facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) Indicated that the facility contributed significantly to the PM-10 concentrations in the Kalispell nonattainment area.

in order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kaiispell nonattainment area it is necessary to reduce or establish new emission limitations for the Flathead Co. facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAOS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressant) for haul road dust the Flathead Co. facility should be able to operate at maximum design rates and remain in compliance with the stipulated emission limitations.

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Kalispell and Evergreen Nonattainment Boundaries

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5240000mN, west to 702000mE, 5340000mN, south to 702000mE, 5338000mN, east to 704000mE, 5338000mN, south to 704000mE, 5338000mN, south to 704000mE, 5338000mN, west to 704000mE, 5338000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, morth to 702000mE, 5336000mN, west to 702000mE, 5336000mN, north to 700000mE, 5340000mN, west to 700000mE, 5340000mN, north to 700000mE, 5340000mN, west to 700000mE, 5340000mN, north to 700000mE, 5340000mN, north

VI. Environmental Assessment

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

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STATE OF MONTANA
AIR QUALLTY CONTAINS
THE STATE OF MONTANA

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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogswell Building, Helena, Montana 59620 (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Flathead County Road Department, Air Quality Stipulation for Kalispell SIP.

Description of Project: This stipulation is for the operation of a portable 1973 Pioneer Duplex Model SOVE crusher (100 TPH), Serial #303R-P-122 and a graval screen. This plant crushes gravel for use in construction, repair, and maintenance of roads and highways.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAOS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health. Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAOS.

Description and analysis of reasonable atternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives available.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A list of enforceable conditions and an analysis of conditions are contained in a signed stipulation.

Recommendation: No EIS is required.

if an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment, control techniques, and fimitations on operating hours at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAOS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau.

EA prepared by: Michael Glavin

Date: July 22, 1993

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STATE OF MONTANA
AIR QUALT CONTROL
LIMENTATION PLAN

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Potential Impact on Physical Environment

		Major	Moderate	Minor	None	Unknewn	Comments Attached
1_	Terrestnik and Aquatic Life and Habitata				x		
2	Water Quality. Quantity and Distribution				x		
3	Geology and Soli Quality, Stability and Melabura			<u></u>	x		
4	Vegetation Cover, Quantity and Quality				X		
5	Assibatics				x		
•	Air Quelity			χ			
7	Unique Endangerad, Fragile or Limited Environmentel Resource					×	
•	Demands on Environmental Resource of Weter, Air and Energy				x		
'6	Historical and Archaeological Sites					x	
10	Cumulative and Becondary Impacts			×			

Potential Impact on Human Environment

•		Majer	Mederate	Minst	Hone	Unknown	Comments Attached
1	Social Structures and Mores				x		
2	Cuttural Uniquenass and Diversity				x		
2	Local and State Tax Base and Tax Revenue				x		
4	Agricultural or industrial Production				X		1
5	Hamen Health				×		
•	Access to and Quality of Regressions: and Wildemoss Activities				×		
7	Quantity and Distribution of Employment				×		
	Classibution of Population				×		
,	Demands for Government Services				x		
10	Industrial and Commercial Activity				х		
11	Lecally Adopted Environmental Plans and Goals			×			
12	Cumulative and Sepandery Impacts				×		

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STATE OF MONTANA
AIR QUALITY CONTINUES
IMPLEMENTATION PLAN

Air Quality Control
Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of Flathead Road Department,
Kalispell, Montana, with 40 CFR ()
50.6, National Ambient Air ()
Quality Standard for Particulate ()
Matter and ARM 16.8.821, Montana ()
Ambient Air Quality Standard for ()
7

STIPULATION

The Department of Health and Environmental Sciences ("Department"), and Flathead Road Department ("Flathead Co."), hereby stipulate and agree to all the following Paragraphs 1-15 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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A. BACKGROUND:

1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

- 2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to subnit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-TO, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Pederal Clean Air Act of all Group I areas, including 21 Kalispell, are designated by operation of law to be in nonattainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the 23 Kalispell area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAQS.
- 7. On November 25, 1991, Governor Stephens submitted 16 to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the 20 major emission sources contributing to noncompliance. implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking 22 lots, construction and demolition project, and barren ground. 23
 - 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A major

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(STIPULATION)

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deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAOS demonstration of attainment.

- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAOS.
- 10. The department has determined that emission limitations applicable to Flathead Co. were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of FM-10. Based upon the

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results of this modeling, the PM-10 emissions from Flathead Co. were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for Flathead Co. are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Flathead Co. and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. upon these modeling results, both parties agree that revised emission limitation must be imposed upon Flathead Co.

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12. The parties to this Stipulation agree that any such emission limitations placed on Flathead Co. must be enforcaable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Flathead Co. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Flathead Road Department*) which is attached hereto and by this reference is incorporated herein in its entirely as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves

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1 it or if future violations of the particulate matter NAAQS or 2 PM-10 standard MAAQS occur, this Stipulation may be renegoti-3 ated and made enforceable through an associated Board Order 4 or simply superseded by a subsequent order of the Board upon 5 notice of hearing.

14. The Board is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Under Sections 75-2-101, et seg., the Board is required to protect public health and welfere by limiting the levels and concentrations of air pollutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell non-attainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to Flathead Co.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to statute.

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit cond:tions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stirulation, and adopts the same as enforceable measures applicable to Flathead Co.

FLATHEAD ROAD DEPARTMENT

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

11/10 Timothy R.

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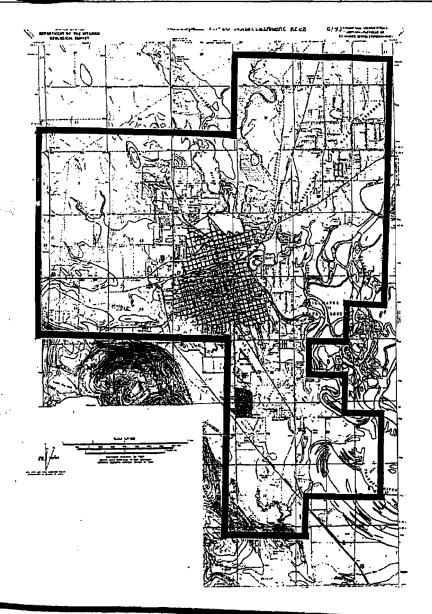
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Volume II

Chapter 15
STATE OF MONT AIR CONTROL

Subject: Flathead County

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Chapter 15

STATE OF MONTANA
AIR QUALITY CONTROL
IMPLEMENTATION PLAN

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Flathead County Air Quality Control Program

EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

Flathead County Road Department P.O. Box 1102 Kalispell, MT 59902-1102

The above-named company is hereinafter referred to as "Flathead Co."

Section 1: Affected Facilities

- A. Equipment: A stationary 1970 Barber Green DA 55 Hot Mix Plant (150 TPH) with a cone dust collector (model CB 55) and a wet collector (model CL 63), installed in 1971.
- B. Original Location: Steel Bridge Pit (SE%, SE%, Sec 3, T28N, R21W, Flathead County).

Section II: Limitations and Conditions

A. Emission Limitations

- Flathead Co. shall operate and maintain the wet scrubber and all other emission control equipment and utilize all techniques specified in this stipulation to provide the maximum air pollution control for which they were designed.
- All visible emissions from the asphalt plant stack are limited to 20% opacity'. (ARM 16.8.1404)
- Flathead Co. shall not cause or authorize to be discharged into the atmosphere from hauf roads, access roads, or the general plant area any visible fugitive emissions that exhibit opacity! of 5% or greater. (RACT)
- Flathead Co. shall treat all unpaved portions of the haul roads, access roads, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 5% opacity limitation. (RACT)
- Flathead Co. shall not cause or authorize to be discharged into time atmosphere from material transfer and storage areas any visible emissions that exhibit opacity¹ of 20% or greater. (ARM 16.8.1401)
- 6. Asphalt plant TSP emissions are limited to 0.10 gr/dscf and 15.4 lbs/hr.
- 7. Asphalt plant PM-10 emissions are limited to 0.10 gr/dscf and 15.4 fbs/hr.
- A device to measure the pressure drop (magnehelic gauge, manometer, etc.) on the control device (wet scrubber, baghouse, etc.) shall be installed and maintained. Pressure drop shall be measured in Inches of water.

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subject:

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Temperature indicators at the control device inlet and outlet must be installed and maintained.

- 9. The original asphalt production rate is limited to 150 tens/hour.
- Once a stack test is performed, the asphalt production rate is limited to the average production rate during the last source test demonstrating compliance.
- 11. The aspha't plant operation is limited to 8760 hours/year.

8. Emission Testino

- A source :est must be conducted and compliance demonstrated within 180 days from the date of the signed stibulation.
- An EPA method 1-5 source test must be performed on the asphalt plant every four years to demonstrate compliance with Section II.A.1, 4, 5, and 6.
- The tests shell consist of three runs, each of at least 60 minutes duration.
 The test that be conducted in compliance with the requirements of 40 CFR Pan 60. Subpart A, General Provisions; EPA Reference Mathods 1-5, 40 CFR Part 60, Appendix A, and 40 CFR Pan 60 Subpart I. The next test shell be performed during 1993.
- 4. An EPA Method 9 opacity test must also be performed in conjunction with the particulate tests to demonstrate compliance with Section B.A.1. This test shall consist of thirty 6-minute average observations with ten of these observations being conducted during each particulate test run.
- These tests must be conducted in compliance with the pre-test notification and reporting requirements of the AQB's Compliance Source Test Protocol.
- Production field data sheets must be supplied as part of the test report.
 Since asphalt production will be limited to the average production rate during the test, it is suggested the test be performed at the highest production rate practical.
- The AQE must be notified of the test five working days before the test is scheduled to be performed. The AQE must also be notified the day before the test is performed to confirm the test. The responsibility for notification is that of the owner/operator.
- Pressure drop on the control device and temperatures will be recorded during the test and reported as part of the test results.

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C. Reporting Requirements

- The operator must maintain on-site records showing daily production rates for the current calendar year. These records shall be available for inspection by the AQB and will be submitted to the AQB upon request.
- 2. Flathead Co. shall retain daily production numbers for a minimum of five (5) years.
- Annual production information shall be submitted in writing to the AQB by 3. March 1 of the following calendar year. The information shall include:
 - Tons of asphalt produced.
 - Hours of operation. b)
 - c) Type and amount of fuel used for the plant.
 - ď١ Fugitive dust information consisting of a listing of all plant vehicles including the following for each vahicle type:
 - Number of vehicles;

 - Vehicle type: Vehicle weight, loaded Vehicle weight, unloaded;
 - Number of tires on vehicle;
 - vi)
 - Average trip length; Number of trips per day; vii)
 - Average vehicle speed;
 - ix) Area of activity; and
 - Vehicle fuel usage (gasoline or diesel) annual total.
 - f) Fugitive dust control for haul roads and general plant area:
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if applicable.
- D. The department may require additional emissions testing on sources of emissions per ARM 16.8,704, Testing Requirements.
- E. Flathead Co. must maintain a copy of the air quality stipulation at the Kalispell ready mix site and make that copy available for inspection by department personnel upon request.
- F. Flathead Co. shall comply with all other applicable state, federal, and local laws and regulations.

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Section III; General Conditions

- A. Inspection. The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, 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 simpulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, fimitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- Enforcement Violations of limitations, conditions and requirements contained here'n may constitute grounds for penalties.

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Analysis of Conditions Flathead County Road Department

I. Introduction

A. Permitted Equipment

A stationary 1970 Barber Green DA 55 Hot Mix Plant (150 TPH) with a cone dust collector (model CB 55) and a wet collector (model CL 63).

B. Process Description

This plant produces asphalt for use in construction, rapair, and maintenance of foods and highways.

C. Facility Location

Flathead Co. operates three (3) gravel pits in or near the Kalispell nonattainment area. They move the Cedar Rapids gravel crusher between these pits in order to crush gravel used to produce asphalt for use in construction, repair, and maintenance of roads and highways. The Barber Greene DA 55 Hot Mix Plant is permanently located at the Steel Bridge Pit. The three gravel pit locations are:

Four Corners Pit (N%, Sec 29, T28N, R21W, Flathead County); Sheepherders Pit (NW%, Sec 15, T28N, R22W, Flathead County); Steel Bridge Pit (SE%, Sec 3, T28N, R21W, Flathead County);

II. Applicable Rules and Regulations

A. ARM 16.8, Subchapter 8, Ambient Air Quality, including but not limited to:

ARM 16.8.821 Ambient Air Quality Standard for PM-10. This section states that no person may cause or contribute to concentrations of PM-10 in the ambient air which exceed the set standards. (Sea Section V)

- B. ARM 16.8, Subchapter 9, Prevention of Significant Deterioration This facility is not a PSD source since this facility is not a listed source and the potential to emit is below 250 tons per year of any pollutant.
- · C. 16.8 Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborne. This section requires an opacity limitation of 20% for all fugitive emission sources.
 - ARM 15.B.1403 Particulate Matter, Industrial Process. This section states
 that no person shell cause, allow, or permit to be discharged into the
 outdoor atmosphare from any operation, process, or activity, particulate
 matter in excess of the amount determined by using the following equation:

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Allowable Emissions = 55 (150 tons/hr)-11 - 40 = 55.44 lbs/hr. The estimated total particulate matter emissions for the asphalt plant are 15.43 lbs/hr, therefore the source is in compliance.

- ARM 16.8,1404 Visible Air Contaminants. This section requires an opacity 3. limitation of 20% from all stacks constructed or altered since November 23,
- 16.8.1423 Standards of Performance for New Stationary Sources (NSPS) This plant was constructed in 1970 so NSPS (40 CFR Part 60, general provisions, and Subpart I Hot Mix Asphalt Facilities does not apply.

RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implementation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispell area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

Asphalt Plant Stack Emissions

Flathead Co.'s asphalt plant was constructed in 1970, and therefore, NSPS does not apply. The department has determined that RACT for pre-NSPS asphalt plants is an emission limitation of 0.10 gr/dscf and 20% opacity. Since BACT is more stringent than RACT and this asphalt plant meets BACT, the RACT requirement is met.

Material Transfer Fugitive Emissions

RACT for material transfer points for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 20% opacity limitation.

Fugitive Road Dust Emissions

RACT for fugicive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity Emitation.

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IV. Emission Inventory

Barber Green DA 55 Hot Mix Plant

Annual Emission Rates (Potential) "									
	Tons/Year								
Source	TSP	PH-10	HCX	ÁOC	co	SDX			
Asphalt Plant Drum Dryer .	67.58	67.58	23.65	18.40	24.97	47.96			
Elevator, Screens, Bins, and Mixe"	131.40	. 19.71							
Cold Aggregate Handling	45.70	26.28							
Haul Roads	3.54	1.27							
Total Emissions	242.22	114.84	23.65	18,40	24.97	47.56			

^{*} Based on operating 8760 hours/yest.

Daily Emission Rates (Potential) ==

_	res/dey								
Source	YSP	PM-10	FOX.	AOC	CO	SOX			
Asphalt Plant Brum Dryer		. 370.29	129.60	100.80	136.60	262.80			
Elevator, Sceens, Sins, and Hixer	720.00	108.00							
Cold Aggregate Handling	340.00	144.00							
Haul Hoads (Daily)	30.12	10.84							
Total Enlacions	1420.41	FI FFA	120 40	100 80	134 #0	262 80			

^{*} Based on operating 24 hours/day.

Asphalt Plant Drum Dryer with Wet Scrubber

Heximum Process Rate: 150 tors/hr Process Airflow Rate: 1500 datf/min (Meximum Process Airflow Rate) Nours of operation: 8760 hr/yr 24 hrs/day

ISP Emissions:

Emission factor: 0.10 gr/dscf (BACT petarmination) Calculations: 0.10 gr/dscf = 18000 dscf/sin = 1/7000 lbs/gr = 40 min/hr = 15.43 lbs/hr = 15.43 lbs/

PH-10 Enfactors:

Emission Factor: 0.10 gr/dscf (Assume 1002 of TSP is PM-10)
Celculations: 0.10 gr/dscf * 18000 decfmin * 1/7000 bs/gr * 60 min/hr = 15.43 bs/hr
15.43 bbs/hr * 8760 hr/yr * 0.0005 tons/bb = 67.58 tons/yr

NOx Emissions:

Emission Factor: 0.036 lbs/ton (AFSRC 3-05-002-0], page 116)
Calculations: 0.036 lbs/ton * 150 tons/hr * 5.40 lbs/hr * 8760 kr/yr * 0.0005 tons/lb = 23.65 tons/yr

VOC Enissions:

Emission Factor: 0.028 lbs/ton (AFSSC 3-05-002-01, page 116)
Calculations: 0.028 lbs/ton * 150 tons/hr = 4.20 lbs/hr * 4.20 lbs/hr * 8760 kr/yr * 0.0005 tons/lb = 18.40 tons/yr

CO Emissions:

Emission Factor: 0.033 (bs/ton (AFSSC 3-05-002-01, page 116) Calculations: 0.033 (bs/ton = 150 tons/hr = 5.70 (bs/hr = 5.70 ts/hr = 5.70 ts/hr = 6760 hr/yr = 0.0005 tons/lb = 24,97 tons/yr

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Emission Factor: 0.073 lbs/ton [AFSIC 3-05-002-01, page 116] Calculations: 0.073 lbs/ton 110 tens/hr = 10.75 lbs/hr 10.95 lbs/hr = 8760 hr/yr = 0.0805 tens/lb = 47.96 tens/yr

Elevator, Sceens, Bins, and Higer

Process Rate: 150 tons/hr Hours of operation: 8760 hrzyr (Hantelm Design)

ISP Enissions:

Emission Factor: 0.2 lbs/ton (aFSSC 3-05-002-02, page 116) Calculationer: 0.20 lbs/ton = 150 tons/hr = 30.00 (bs/hr = 131,40 tens/yr = 0.0005 tons/lb = 131,40 tens/yr

sucta tarastant:

Emission Factor: 0.03 tbs/ton (AFSSC 3-05-002-02, page 11a)
Calculations: 0.03 tbs/ton = 150 tbss/hr = 4,50 tbs/hr = 4,50 tbs/hr = 4,50 tbs/hr = 8760 hr/yr = 0.0005 tbs/lb = 19,71 tcss/yr

Cold Aggregate Handling

(Haximus Design)

Process Rate: 15G tone/hr Reurs of operation: 8760 hr/yr

Emission Factor: 0.10 lbs/ton (aFSsC 3-05-002-04, page 116)
Falculations: 0.10 lbs/ton + 150 tons/th + 15.00 lbs/tr + 15.00 lbs/tr + 8760 kr/yr + 0,0005 tons/tb = 65.70 tons/yr

pu-10 Enissions:

Emission factor: 0.64 lbs/ton (AFStS 3-05-02)-04, page 116)
Colculations: 0.04 lbs/ton * 150 lore/hr + 6,00 lbs/hr

8.00 lbs/hr + 8760 hr/yr * 0.0005 tons/lb = 26.28 t-ns/yr

NAUL READS

Operating Hours: B760 Rours/Tr
Venicla Hiles Trav: 3111 VMT/Fr
Central Efficiency is 50% for watering.

TSP Emission Factor is determined by the following equation:

Ex 5.Ph*(s/12)*(s/30)*(s/3)*0,7*(s/6)*0.5*pk

Nere:

Ex Typ Emission factor in Lbs/venicle Hile Traveled (vml)

As Particle elizing command:

s silt Emission in percent

s alwarage Speed of vehicles

Na Average maybr of wehicle

ve Average maybr of wheels

As Precipitation Ratio based on the following:

130 pas with ears than .01* of Precipitation

Px (365 days - 130 days)/365 Days = 0.6638

759 Enission Factor: 4.55 Lbs/WIT

E(13P)# (311E WE/Yr)(4.55 Lbs/WH)(0.5) E(15P)# 707B Lbs/Yr or 3.54 Yers/Yr

PHIQ Emission Fector to determined by the following equation:

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E= 5.5"k"(s/12)"(S/30)"(W/3)""0.7"(w/4)""0.5"PR
                                      e 5.5%2*(g/12)*(g/30)*(v/3)***0.7*(u/4)***0.5*PR

Where:

E F FM10 Zsission Factor in Lbs/vehicle Mile Traveled (VMT)

he Particle sizing constant 0.36

s Silt Content in percent 8.7 %

s Average speed of vehicle 10.0 eph

Us Average vejght of vehicle 10.0 rph

PR Presipitation Ratio based on the following:

13051 beys with zore them. old* of Precipitation

PR* (365 days - 130 days)/365 Deys = 0.6438
PHIG Enissions:
                                         PHIO Emission Factor: 1.64 Lbs/VRT
                                      E(PH10)= (311) VMT/Yr)(1.64 Lbs/VMT)(0.5)
E(PH10)= 25-2 Lbs/Yr or 1.27 fors/Yr
  Haul Roeds (Dally)
                                         Operating Moure: 8760 Moure/Tr
Vehicle Miles Trav: 3111 VMI/Tr
Control Efficiency is 50% for watering.
                                                                                                                                                                                                                                               (Based on Haximum Design)
                        YSP Emission factor is determined by the following equation:
                                                E= 5.6*k*(s/12)*($/30)*(V/3)**0.7*(u/4)**0.5*PR
                                                            | 5.5%*(s/12)*(s/30)*(u/3)**u.r*(u/u/r-u.s*n
| Mhere:
| E= ISP Enissian Factor in Lbs/Vehicle Mile Traveled (VMT)
| to Particle sizing constant | 1,0
| as %lift Content in percent | 8.7 %
| S. Avvrage Speed of Wehicle | 10,0 mph | 1,0 m
  TSP Emissions:
                                                  TSP Enission factor: 7.07 Lbs/Will
                                                             E(TSP)= (3111 VMT/Yr)(7.07 Lbs/MMT)(0.5)
E(TSP)= 10994 Lbs/Yr or 5.50 Tons/Tr or 30.12 lbs/day
                           PHIS Emission Factor is determined by the following equation: .
                                                E - 5.9*k*(s/12)*(s/30)*(w/3)**0.7*(w/4)**0.3*PR

Where:
E = PRIC Enission factor in Lbs/Vehicle Mile Traveled (WIT)
kv Perticle sizing constant
su Silt Content in percent
5. Average speed of vehicle
Wh Average weight of vehicle
10.0 oph
wheveage maker of whericle
pre Assumes no precipitation
1.0000
     PHIC Emissions:
                                              PHIO Emission Factor: 2.54 Lbs/VRT
```

E(PM10)= (3:11 VMT/Yr)(2.54 Lbs/VMT)(0.5) E(9M10)= 3958 Lbs/Yr or 1.98 Tons/Yr or 10.44 Lbs/day

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STATE MONTANA
QUALITY CONTROL
IMPLEMENTATION PLAN

Subject:

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V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air. Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SiP. The EPA is now requiring the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to essure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission limitations applicable to the Flathead Co. facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Flathead Co. facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) indicated that the facility contributed significantly to the PM-10 concentrations in the Kalispell nonattainment area.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for the Flathead Co, facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAOS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and application of reasonable control techniques (watering or application of dust suppressent) for haul road dust the department has determined that the Flathead Co. facility can operate at maximum design rates and remain in compliance with the stipulated emission limitations.

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Kalispall and Evergreen Nonattainment Boundaries

The area is bounded by lines from UTM Coordinate-700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, south to 702000mE, 5339000mN, east to 703000mE, 5339000N, south to 703000mE, 5338000mN, east to 703000mE, 5338000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, west to 702000mE, 5336000mN, west to 702000mE, 5336000mN, south to 704000mE, 5335000mN, west to 704000mE, 5335000mN, and to 704000mE, 5340000mN, morth to 695000mE, 5340000mN, north to 695000mE, 5340000mN, north to 695000mE, 5340000mN, north to 700000mE, 5345000mN, north t

VI. Environmental Assessment

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

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AIR OUT CONTROL

subject: Flathead County Air Quality Control Program

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogswell Building, Helena, Montana 59620 (408) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (FA)

Project or Application: Flathead County Road Department, Air Quality Stipulation for Kalispell SIP.

Description of Project: This permit is for the operation of a stationary 1970 Earber Grean DA 55 Not Mix Plant (150 TPH) with a cone dust collector (model CB 55) and a wet collector (model CL 63). This plant produces asphalt for use in construction, repair, and maintenance of roads and highways.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or loss (PM-10). Due to exceedences of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives available.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A list of enforceable conditions and an analysis of conditions are contained in a signed stipulation.

Recommendation: No EIS is required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control techniques at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAQS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau.

EA prepared by: Michael Glavin Date: July 22, 1993

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Potential Impact on Physical Environment

		Mayor	Modera:e	Miner	None	Jeknown	Comments Attached
1	Terrestrial and Aquatic Ufe and Habitats	l			x		
2	Water Gushty, Quantity and Distribution				×		
2	Geology and Soil Ouslity, Stability and Moisture				x		
4	Vegetation Cover, Quantity and Duality			_	x		
5	Aestheircs				x		
6	Air Quality	L		x		}	
,	Unique Endangered, Fregile or Limited Environmental Resource					x	
	Damenda on Environmental Resource of Water, July and Energy		,		×		
9	Historical and Archaeological Sites					x	
10·	Cumulative and Secondary Impacts			×			

Potential Impact on Human Environment

		Major	Mederals	Miner	Nana	Unknown	Comments
1	Social Structures and Mares				2		
2	Cultural Uniqueness and Diversity				×		
3	Local and State Tex Bace and Tax Revenue				×		
4	Agricultural or Industrial Production				x		
5	Human Health				X		4
•	Access to and Quality of Recreational and Wilderness Activities				×		
7	Quantity and Distribution of Employment				×		
	Distribution of Population				×	1	
	Demands for Government Services				x		
10	Industrial and Commercial Activity				×		
11	Locally Adopted Environmental Plans and Goals			×			
12	Cumulative and Secondary Impacts				,		

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Chapter 15

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Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

3 In the Matter of Compliance of 5

STIPULATION

In the Matter of Compliance of Klingler Lumber Company, Inc., Kalispell, Montana, with 40 CFR 50.6, National Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana Ambient Air Quality Standard for PM-10

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The Department of Health and Environmental Sciences ("Department"), and Klingler Lumber Company Inc. ("Klingler"), hereby stipulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of

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Health and Environmental Sciences ("Board"):

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BACKGROUND:

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1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seg., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

- Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Federal Clean Air Act of all Group I areas, including Kalispell, are designated by operation of law to be in nonattainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. 42 25 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard Contained in both the particulate matter NAAQS and the PM-10 MAAQS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. The implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to nonsompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition project, and barren ground.
- 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A major

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deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demonstration of attainment.

- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The department has determined that emission limitations applicable to Klingler were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the

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results of this modeling, the PM-10 emissions from Klingler were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for Klingler are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Klingler and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, both parties agree that revised emission limitation must be imposed upon Klingler.

14 BINDING EFFECT

> 12. The parties to this Stipulation agree that any such emission limitations placed on Klingler must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Klingler. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Klingler Lumber Company Inc. ") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

> 13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves

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it or if future violations of the particulate matter NAAQS or PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Board is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Under Sections 75-2-101, gr arg., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell non-attainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to Klingler.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to statute.

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stipulation, and adopts the same as enforceable measures applicable to Klingler.

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KLINGLER LUMBER COMPANY INC.

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTA SCIENCES

Rebinson Robert J. Director

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Buch. Timothy R.

Attorney 19 20

Attorney

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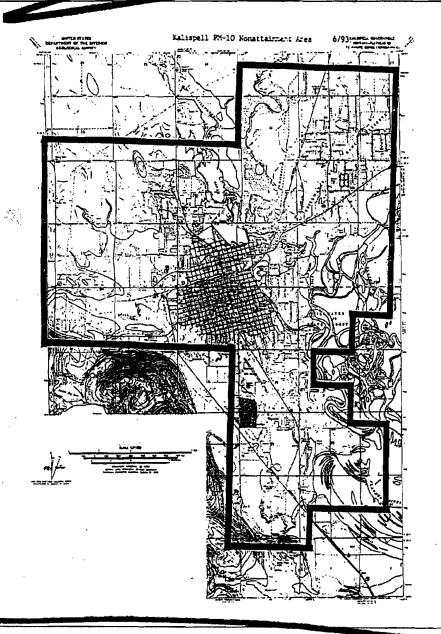
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EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

Klingler Lumber Company, Inc. P.O. Box 1097 Kalispell, MT 59903

The above-named company is hereinafter referred to as "Klingler."

SECTION I: Affected Facilities

A. Plant Location:

A 14 MMBF/yr planer mill located ¼ mile northeast of Kalispell, Montana on Whitefish Stage Road (Section 22, Township 29 North, Range 21 West, Flathead County).

- B. Affected Equipment and Facilities:
 - 1. Lumber planer with cyclone¹;
 - Trim saw with cyclone¹;
 - Trim block chipper with cyclone¹;
 - 4. Two (2) wood-waste bins with two (2) cyclones;
 - 5. Wood-waste bins truck loadout;
 - 6. Fugitive emissions from lumber handling.
- C. Existing Equipment not allowed to operate:
 - 1. Tepee burner, (See Section II.A.7)

SECTION II: Limitations and Conditions

- A. Emission Limitations and Conditions:
 - Klingler shall not cause or authorize emissions to be discharged into the
 outdoor atmosphere from any source installed after November 23, 1968
 that exhibit an opacity² of twenty percent (20%) or greater averaged
 over six (6) consecutive minutes. This applies to stack emissions from
 the two (2) wood-waste bin cyclones.
 - Klingler shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed prior to November 23, 1968 that exhibit an opacity₂ of forty percent (40%) or greater averaged over six (6) consecutive minutes. This applies to stack emissions from

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¹ The planer, trim saw, and block chipper are all controlled by a common cyclone.

Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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the cyclone used to collect the shavings and sawdust from the lumber planer, trim saw, and chipper.

- Klingler shall operate the planer mill facility so as not to cause or authorize emissions to be discharged into the outdoor atmosphere from access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit opecity³ of 5% or greater averaged over six (6) consecutive minutes. This applies to fugitive emissions from any hauling, handling, loading, and unloading operation. (RACT)
- Kingler shall treat all unpaved portions of the haul roads, access roads, parking lots, lumber yard, and the general plant area with water and/or chemical dust suppressant as necessary to meintain compliance with the 5% opacity² limitation. (RACT)
- Klingler shall submit final angineering plans for the complete wood waste collection system, including the two (2) wood waste storage bins, the two (2) wood waste bin cyclones and the piping system, to the department within 180 days of completion of construction.
 - Klingler shall dismantle, demolish or otherwise render the tapas burner incapable of being operated by November 15, 1993.
- Operational Reporting Requirement:

Klingler shall supply the Department of Health and Environmental Sciences Air Quality Bureau with an annual emission inventory for the listed emission points. The annual emission inventory report must be submitted in writing to the department by March 1 of the following calendar year. The emission inventories shall include the following production and emission inventory information:

- MRI Production:
- total hours of operation. total mill cut for the year.
- Hours of operation and flow rate for each of the following cyclones:
 - Planer, trim saw, and chipper cyclone?
 - Wood-waste bin syclone #1; Wood-waste bin syclone #2.
- Fugitive dust information consisting of a listing of all plant vehicles including:
 - Vehicle type:
 - ь. Vehicle weight leaded:
 - ¢. Vehicle weight unloaded:

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Opacity shall be determined according to 40 CFR, Part 60, Appendix A. Method 9 Visual Desarmination of Opacity of Emissions from Stationary Sources.

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- Number of tires on vehicles: đ.
- Average trip length;
- e. f. Number of trips per day;
- Average vahicle apeed; ç.
- Area of activity; and ħ.
- Vehicle fuel usage (gesoline or diasel in gallons) annual total.
- Fugitive dust control for haul roads and general plant area:
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if applicable.
- The department may require additional emissions testing on sources in the plant Ç. per ARM 16.8.704 Testing Requirements.
- Klingler must maintain a copy of the air quality stipulation at the Kalispell planer D. mill and make that copy available for inspection by department personnel upon
- Klingler shall comply with all other applicable state, federal and local laws end E. regulations.

Section III: General Conditions

- Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, 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 stipulation.
- Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including €. amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- Enforcement Violations of limitations, conditions and requirements contained C. herein may constitute grounds for penalties.

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Analysis of Conditions

Klingler Lumber Company, Inc.

I. Introduction/Process Description

Klingler operates an existing planer mill located % mile north east of Kalispeil, Montana on Whitefish Stage Road — The mill receives rough cut lumber from area forest product companies and stockpiles them in their lumber yard prior to processing them in the planer mill.

The rough lumber is air dried to reduce shrinkage in the final dimension cut lumber. Once the lumber is dry it is run through a thickness planer where the rough cut lumber is planed to the proper dimensions. The planed lumber is then cut to the proper length using a trim saw. The final dimension lumber is then inspected and shipped.

At present, the planer shavings, saw dust, and chipped trim blocks from this process are collected and transferred pneumatically to the tepee burner. Klingler has operated a tepee burner, which is used for the disposal of the wood wastes generated from the planer mill processes, since 1962. By June 1993, an alternate means of disposing of the unmarketable wood wastes must be used.

Klingler has purchased and installed two used wood-waste bins with two cyclones, for the collection, storing, and shipping of marketable wood wastes. The new collection system became operational on approximately July 1, 1993. Since this date, the planer shavings, saw dust, and chipped trim blocks from this process are to be collected and transferred pneumatically to the wood waste bins and loaded into trucks.

- ii. Applicable Rules and Regulations
 - A. ARM 16.8.821, Ambient Air Quality Standards for PM-10:

This section requires that the 24-hour and annual average concentrations of PM-10 in the ambient air not exceed the set standards. (See Existing Air Quality and Impacts, Section V)

B. ARM 16.8, Subchapter 9, Prevention of Significant Deterioration of Air Quality (PSD):

ARM 16.8.921 Definitions. Klingler's planer mill is not a "major stationary aource" because it is not a listed source and does not have the potential to emit more than 250 tons of any pollutant. Once the tepes burner is removed this source will no longer have the potential to emit more than 250 tons per year of any pollutant.

C. ARM 16.8, Subchapter 14, Emission Standards, Including but not limited to:

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- ARM 16.8.1401 Particulate Matter, Airborne. This section requires reasonable preceptions for fugitive emissions sources and Reasonably Available Control Technology (RACT) for existing fugitive sources located in a nonattainment area. The department, in consultation with EPA, has determined that the use of chemical stabilization or paving on major haul roads will satisfy these requirements.
- ARM 16.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% for all stacks or vents installed after November 23, 1968.

III. RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implementation Plans (SIP's) must contain "reasonably svailable control measures" (RACMI for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispeli area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Wood Waste Collection Cyclones

A cyclone would provide the best level of particulate control (85%). Klingler currently uses a cyclone for particulate control from the planer, trim saw, chipper, and two would waste bins. The department has determined that the cyclones will constitute RACT for these sources.

B. Fugitive Road Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

IV. Emissions Inventory

Planer Mill

Arrumi Emission Sates (Potential) *
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Source		tors/year									
	TSP	PH-10	SOX	601	VOC	œ					
Wood Wests Sin Cyclone S)	3.09	2.04		******	******	• • • • • • • • • • • • • • • • • • • •					
Wood Wests Bin Eyelone #2	5.09	2.04									
Shavings Bin Leadout	5.75	3.45									
Chip Bin Loadout	1.38	2.36									
Trim Now Cyclere	2.45	1,96									
Lumber Yard + Fugitimes	1.42	0.51									
Total Exissions	21.36	9 45	6.00	8.00	8.80	0 D6					

^{*} Based on operating 8760 hours/year.

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Daily Emission Astes (Potentisi) **								
•				(bs/day		•		
Sourte	f\$Þ	Px - 10	RÓX	VOC			\$0z	
Wood Weste Sin Cyclona #1	27.68	11.15						
Vood Wosts Sin Cyclams #2	27.44	11.15	-					
Shavings Bin Loadout	31.53	18.52						
Chip ∈ Loadout	8.37	3.65						
Trim Saw Cyclone	16.52	5.21						
Lumber Turd - fugitives (Delly)	12.07	4.35						
Total Emissions	122.46			0.0				
em Based on operating 24 hours/day.			•					
/ Wood Waste Bin Cyclone #1				•				
A			48 - 13					
Production Flowrests; Nours of operation: Fraction of year operating:	4523 1760 1.00		(Designe (Heximus					
TSP Emissions:								
Eminsfor Factor: Calculations:			(3-07-0 3 18s/sc	f# * 1.0		0.0	433 005 tens/19 •	
PH-10 Emissions:								
Emission factors Calculations:	0,90 t 4523 to	bs/scfn :fm = C.	(3-07-0 10 lbs/sc	fm * 1.0	FSSCC B X/y	0.0	43) 605 tons/(b =	
J Wood Weste Bin Cyclone 82								
Production Flourate:	6323 (reia	(Cesiene	d (1 m -				
Nower of operation: Fraction of year operating:	8760	era .	(Neg ima					
TSP Extinators								
Emission Fector: Calculations:	2.25 t 4521 44	lbs/scfs cfs * l.	(3-07-0 35 (bs/60	ta • 1.0	FSSCC 10 %/y: 19 ton	6.0	43) 1005 tens/(b =	
PN-10 Enfesters:								
Emission Factors Calculations:	8,90 (4523 st	lbe/scta cim * 0.	(3-07-0 60 lbs/sc	ta • 1.5	ISSCE W Long	. 0.0	45) 1905 tons/lb =	
Snavings Sin Loadout								
Lumber Production: Shavings Production:		φιέ∮/yτ tons/⁄#3	,	{Based	on Iv	e skift	(4)	
TSP Emissions:								
Buission Factor: Calculations:	7.05 14.00 M	M\$5/yr *	(3-07-6 411 tons (one/yr	30-02, <i>1</i> 71 016 F. *	F#500 2.00	page 1 lbs/tor	(44) 1 * 8.6635 ton	•/lb •
PH-10 Emissions:								
Emission factor; Calculations:	1.20 14.00 M	14F/yr *	(3-07-0 411 toru tona/yr	30-02, / /###F	1.20	page 1 (be/con	46) 1 * 0.8005 tan	*/\b *

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Chip Sin Loadout
                                                                                14.00 MMBF/yr
621 tons/MMBF
                                                                                                                                 (Based on two shifts)
                  Lumber Production:
Chip Production:
                 TSP Emissions:
                                                                              0.36 lbe/ton (Estimate based on browledge of process & size of material)
14.00 NMBF/yr * 621 tons/NMBF * 0.36 lbs/ten * 0.0005 tons/lb = 1.56 toms/yr
                                     Emission Factors
                                     Calculations:
                   PH-10 Emissions:
                                     Emission Factor: 0.126 lbs/ton (Estimate based on knowledge of process & size of material)
Calculations: 14.00 MMSF/yr * 621 tons/MMSF * 0.13 lbs/ton * 0.005 tons/lb * 0.56 tons/yr
  Trim Saw Cyclone
                                                                                   2356 scfe
8760 hrs
1,00 %/yr
                                                                                                               (Designed flow rate)
(Reximum Potential)
                    Production flowrets:
Bours of operation:
Fraction of year operating:
                     TSP Emissions
                                       Emission Factor: 2.25 lbe/scfa (3-07-008-05, AFSECC page 143)
Ealculations: 2356 scfa * 2,25 lbe/scfa * 1.00 X/yr * 0.0005 tons/lb = 2,65 tons/yr
                      PH-10 Esissions:
                                                                                 0.90 lbs/scfm {3-07-008-05, A/SSCC page 143}
2356 acfm * 0.90 lbs/scfm * 1.00 X/yr * 0.0005 tcns/lb *
1.06 tons/yr
                                        Emission Fector:
Celculations:
    Lumber Yard - Fugitives
                       Operating Hours 8760 Hour
Vehicle Hiles Traveled 9300 VMT/
Control Efficiency is SOX far watering.
                                                                                      8760 Nours/fr
9300 WHT/Yr
               TSP Emission Factor is determined by the following equation:
                       Ex 5.9%*(s/12)*(s/30)*(u/3)**0.7*(u/4)**0.5*PR

Where:

Ex TSP Esisation Factor in Lbs/Vehicle Mile Traveled (VMI)

to Particle sizing constant for TSP

1.0

as Sit Content in parcent

8x average Speed of vahilate in sph

bx Average sphed of vehicles in Tora.

3.67 Tone 9

se Average masher of sheels on vehicles

PR = Precipitation Ratio based on the following:

130 Days with more than .01° of Precipitation

PR= (365 days - 130 days)/365 Days = 0.6438
      TSP Emissions:
TSP Emission Factor
                                                                                                                                                0,61 Lbs/Wf
                                 E(TSP)+ (9500 VHT/Tr)(0.61 Lbs/VHT)(0.9)
E(TSP)+ 2837 Lbs/Yr
or 1.42 Tors/Tr
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PM10 Emission factor is determined by the following equation:
                                       En 5.9%*(4/121*(5/30)*(6/35**0.7*(4/4)**0.5*94
Where:
                                   PHIS Emissions:
PHIS Emission Factor
                                                                                                                                                                                                                                                             0.22 Lbs/VHT
                                              E(PH10)= {0300 Wf/Tr3(0.22 Lbs/Wf3(3.5)
E(PH10)= 1021 Lbs/fr
or 0.51 Tone/Tr
  Lumber Yard - Pupitives (Daily)
                                    Operating Hours 8760 Hours/Te
Vehicle Hiles Traveled 9330 Vet/Fr
Control Efficiency is 50% for wetering.
                     TSP Emission factor is determined by the fellowing equation:
                                     E > 5.9%*(s/12)*(8/30)*(s/3)**0.7*(s/2)**70.5**pg

Where:

E * TSP Emission Factor in test/renicle Mite Traveled (WHT)

In Particle sizing constant for "S2" 1.0

a > Sitt Content in percent

E Average Speed of whiteles in Mpn 5.0 eph

We Average weight of webicing in lors 3.47 Ton

we Average weight of webicing on venities 5.33 whe

PRo Assumes no precipitation 1.0000
                                                                                                                                                                                                                                                          1.0
8,7 %
5,0 apn
3,67 Tons
5,33 wheels
1,0000
 TSP Emissions:
TSP Emission Factor
                                                                                                                                                                                                                                                                  0.05 Lbs/981
                                                   9830 Enjacion factor is determined by the following equation:
                                     E= 5.9°t"(s/12)°CS/30)°(W/3)°n0.7°(W/6)°n0.5°spg

share:
E= PHIO Emission factor in tbs/Vahicia RILV Traveled (YMT)
k= Perticle slizing constant for PHIO
Emission factor in the Section Secti
  PHID Existions:
                                    PRIO Enigaton Factor
                                                                                                                                                                                                                                                                 0.34 Lbs/W1
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V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Hesith and Environmental Sciences and the Flathead City-County Health-Department to submit the Kalispell PM-10 State Implementation Plan (SiP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA required the department to use a dispersion model to model which incorporates allowable emission rates from facilities 1 to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission limitations applicable to the Klingler facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Klingler facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) Indicated that the facility contributed significantly to the PM-10 concentrations in the Kalispelt nonattainment area.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kaispell nonattainment area, it is necessary to reduce or establish new emission limitations for the Klingler facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compilance with the NAAOS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressent) for hauf road dust, the Klingler facility should be able to operate at maximum design rates and remain in compliance with the stipulated emission limitations.

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Kalispell and Evergreen Honattainment Boundaries

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5339000mN, east to 703000mE, 5339000N, south to 703000mE, 5338000mN, east to 704000mE, 5338000mN, west to 704000mE, 5336000mN, west to 704000mE, 5336000mN, morth to 704000mE, 5336000mN, west to 700000mE, 5336000mN, north to 700000mE, 5335000mN, west to 700000mE, 5340000mN, north to 695000mE, 5345000mN, east to 700000mE, 5347000mN, east to 700000mE, 5347000mN

VI. Environmental Assessment

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

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> STATE OF MONTANA AIR QUALITY CONTINUES IMPLIATION PLAN

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Program

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Air Quality Bureau
Cogswell Building, Helena, Montana 59620
(406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Klingler Lumber Company, Inc., Air Quality Stipulation for Kalispell SIP.

Description of Project: Klingler Lumber Company, Inc. operates an existing planer milli located ½ mile northeast of Kalispell, Montana on Whitefish Stage Road. This facility manufacturers dimension lumber for use in the construction industry. The milli receives rough cut lumber from area forest product companies. The rough cut lumber is air dried to reduce shrinkage and planed into dimension cut lumber. The wood wastes that this facility generates is sold as a by-product which is used in the manufacture of other wood products.

Benafits and Purpose of Propoxal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives exist.

A fixting and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A list of anforceable conditions are contained in a signed attoulation.

Recommendation: An EIS is not required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control techniques at the plant enforceable and assures that the amissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAADS.

Other groups or egencies contacted or which may have overlapping jurisdiction: None.

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bursau.

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EA prepared by: Michael Glavin

Date: July 22, 1993

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Potential Impact on Physical Environment

		Majer	Moderate	Miner	None	Unknown	Comments Attached
1	Terrestrial and Aquetic Life and Habitets				x		
2	Weter Guality, Quantity and Distribution				×		
3	Geology and Soil Quality, Stability and Malature		,		x		
4	Vagetation Cover, Quantity and Quality				x		
8	Aesthetics				x		
6	Air Quality			×			
7	Unique Endangerad, Fragüs er Limited Environmental Resource					x	
	Demands on Environmental Resource of Water, Air and Energy				×		
1	Historical and Archaeological Situs					×	
10	Cumulative and Secondary Impacts			×		1	

Potential Impact on Human Environment

	,	Major	Moderale	Miner	Kane	Linknown	Comments Attached
1	Satisf Structures and Meras				×		
2	Cultural Uniqueness and Diversity				×		
3	Local and State Tex Base and Tax Revenue				×		
4	Agricultural or Industrial Freduction				х		
5	Human Health				x,		
•	Access to and Quality of Recressional and Wilderness Activities		, ,		x		
7	Guentity and Distribution of Employment				x		
	Distribution at Population				×		
3	Demanda for Government Services]		x		
10	Industrial and Commercial Activity				х	Ţ	
11	Locally Adopted Environments: Plans and Goals			x			
12	Cumulative and Secondary Impacts				x		

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION

Subject: Flathead County are quality Control

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of McElroy and Wilkens, Inc., Kalispell, Montana, with 40 CFR 50.6, National Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana Ambient Air Quality Standard for PM-10

. STIPULATION

The Department of Health and Environmental Sciences ("Department"), and McElroy and Wilkens, Inc. ("McEW"), hereby stipulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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BACKGROUND:

On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

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- 2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Ecard to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- 5. On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Federal Clean Air Act of all Group I areas, including Kalispell, are designated by operation of law to be in non-attainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 NAAQS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. The implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition project, and barren ground.
- 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A major

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deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demonstration of attainment.

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- 9. On June 15, 1992, Governor Staphens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The department has determined that emission limitations applicable to MCSW were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 amissions in the Kalispell non-attainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the

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results of this modeling, the PM-10 emissions from Mc&W were identified as a significant contributor to ambient levels of 3 PM-10 in the Kalispell monattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for McGW are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Mc&W and other sources in the Kalispell area to determina the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, both parties agree that revised emission limitation must be imposed upon Mc&W.

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B. BINDING EFFECT

12. The parties to this Stipulation agree that any such emission limitations placed on Mc&W must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Mc&W. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, McElroy and Wilkens, Inc.") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves

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it or if future violations of the particulate matter NAAQS or PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Board is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Under Sections 75-2-101, at seq., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell non-attainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to MCSW.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to statute.

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STATE OF MONTANA AIR QUALITY SATROL IMPLEMENTATION PLAN subject:

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stipulation, and adopts the same as enforceable measures applicable to McGW.

13 MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL 14 MCELROY & WILKENS, INC. 15 Robert J. Robinson Director 16 17 18 Timothy R. Attorney 19 Attorney 20 21 22 23 24 25 26 27

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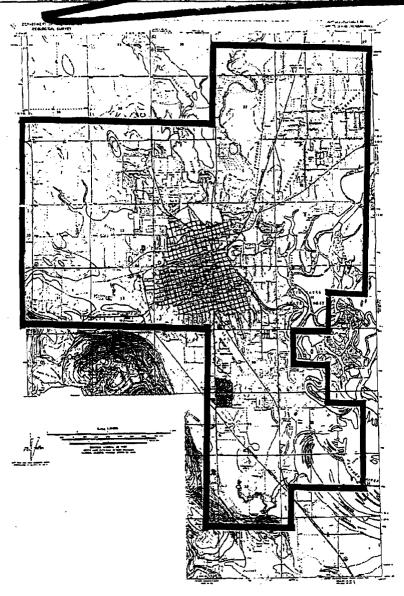
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EXHIBIT B

McElroy and Wilken, Inc. P.O. Box 35 Kalispell, MT 59901

The above-nemed company is hereinafter referred to as "Mo & W."

SECTION 1: Affected Facilities

- A. Plant Location: Mo & W's concrete batch plant is located at NW K, SW K, Section 2. Township 28 North, Range 21 West, Flathead County, Montana. The mailing address of the facility is P.O. Box 35, Kalispell, MT 59901.
- B. Attestes Equipment
 - £ 1976 Ross stationary concrete batch plant (125 cu.yds/hr).
 Farticulate emissions are to be controlled by three (3) fabric filter vents, one to each of the three cement silos;
 - 2. Che stationary conveyor;
 - Four (4) sand/aggregate storage bins;
 - 4. One gravel washing plant.
 - Local access road located north of facilities. This road extends from Whitelish Stage Road (west end) to the BN railroad tracks (east end). The length of the road is approximately one half (%) mile long.

SECTION II: Limitations and Conditions

- A. Emission Control Requirements
 - Mc & W shall operate and maintain the fabric filter vents and all other emission control equipment and utilize all techniques specified in this stipulation to provide the maximum air pollution control for which they write designed.
 - Mc & W shall treat all ungaved portions of the haul roads and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 5% opacity! limitation. (RACT)
 - Mc & W shall not operate the gravel washing plant in a dry screening mode.

Opacity shall be determined according to 40 CFR Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources or CEMs.

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STATE OF MONTANA AIR QUALITY CATROL IMPLANTATION PLAN ct: Flathead County
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8. Emission Limitations

Mc & W shall not cause or authorize to be discharged into the atmosphere:

- Any vent emission which exhibits greater then 20% opacity! averaged over six (6) consecutive minutes. (RACT)
- Any fugitive emission from any truck loading or unloading which exhibit greater than 10% opacity! averaged over six (E) consecutive minutes. (RACT)
- 3 Any fugitive emissions from any transferring operations which exhibit greater than 10% opacity* averaged over six (6) consecutive minutes. (RACT)
- Any fugitive emissions from the hauf roads, plant area, or local access road which exhibit greater than 5% opacity¹ averaged over six (6) is consecutive minutes. (RACT)

C. Emissions Monitoring

- Mo & W shall inspect and keep record of repairs for the fabric filter vents
 on the cement silo every six (6) months of operation so as to ensure that
 each such collector is operating at optimum efficiency as recommended
 by the manufacturer.
- The records compiled in accordance with this section shall be maintained by Mc & W as a permanent business record for at least two years and shall be available at the plant site for inspection by the duly authorized representative of the department.
- D. Operational Reporting Requirement: *

Mc & W will provide the department with a production report by March 1 for the previous calendar year production. The report is to contain the following information:

- 1. Total amount of concrete produced, in cubic years:
- Annual total of sand, in tons;
- 3. Annual total of cement, in tons;
- Annual total of aggregate, in tons:
- 5. Hours of operation:
- Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:

Opacity shall be determined according to 40 CFR Part 60, Appendix A. Method 9 Visual Determination of Opacity of Emissions from Stationary Sources or CEMs.

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- a. Total number of vehicles;
- b. Vehicle type;
- c. Vehicle weight, loaded;
- d. Vehicle weight, unloaded;
- e. Number of tires on vehicle;
- f. Average trip length;
- g. Number of trips per day;
- h. Average vehicle speed; and
- Area of activity.
- 7. Fugitive dust control for haul roads and general plant area:
 - Hours of operation of water trucks.
 - b. Application schedule for chemical dust suppressant if applicable.
- E. The department may require additional emissions testing on sources in the plant per ARM 16.6.704 Testing Requirements.
- F. Me & W must maintain a copy of the air quality stipulation at the Kalispell site and make that copy available for inspection by department personnel upon request.
- G. Mc & W shall comply with all other applicable state, faceral, and local laws and regulations.

Section III: General Conditions

- A. Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CEMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this stipulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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STATE OF MONTANA
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rlathead County Air Quality Control Program....

Analysis of Conditions McElroy and Wilken, Inc.

. Introduction/Process Description

A. Affected Equipment

McEkroy and Wilken, Inc. operates a 1976 Ross stationary concrete batch plant with three (3) fabric filter vents, one on each of the three cement silos. Mc & W's concrete batch plant is located at NWX, Section 8, Township 28 North, Range 21 West, Flathead County, Montzna. The mailing address of the facility is P.O. Box 35, Kalispeli, MT 59901.

This concrete batching plant produces concrete for use in commercial and residential construction projects in the Kalispell area.

II. Applicable Rules and Regulations

- A. ARM 16.8, Subchapter 8, Ambient Air Quality, including but not limited to: ARM 16.8.821 Ambient Air Quality Standards for PINTO. This section states that no person may cause or contribute to concentrations of PM-10 in the ambient air which exceed the set standards. (See Section V)
- ARM 16.8, Subchapter 9, Prevention of Significant Obstaclaration This facility is not a PSD source since this facility is not a listed source and the potential to emit is below 250 tons per year of any pollutant.
- C. ARM 16.8, Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborns. This section requires reasonable precautions for flugitive emissions sources and Reasonably Available Control Technology (RACT) for existing flugitive sources located in a nonattainment area. The department, in consultation with EPA, has determined that the use of chemical stabilization or paving on major haul roads will satisfy these requirements.
 - ARM 18.8.1403 Particulate Matter, Industrial Frocess. This section states that no person shall cause, allow, or permit to be discharged into the outdoor atmosphere from any operation, process, or activity, particulate matter in excess of the amount determined by using the following equation:

Allowable Emissions = 55 (256 tons/hr) 11 - 40 = 61.22 lbs/hr.

The estimated total particulate emissions from the cament silos are 0.048 lbs/hr, therefore the source is in compliance.

 ARM 16.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% for all stacks or vents. The requirements of

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this stipulation supersede this rule because they are more stringent or they are equivalent.

III. RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderata area State Implementation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispell area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Fracess Particulate Vent Emissions

Mc & W currently controls particulate vent emissions with a fabric filter having an estimated efficiency of 99,35%. High efficiency fabric filters are the highest efficiency particulate control system for a source of this type. Since Mc & W is currently using this option, no other options need be considered. The department has determined that the fabric filter control system will constitute FACT in this case. The department has also determined that an opacity of 20% will constitute RACT for all yent emissions with fabric filter control.

B. Material Transfer Fugitive Emissions

FACT for material transfer points for sources of this type has been determined by the department to be the use of washed product; or water or chemical stabilization so as to maintain compliance with a 10% opacity limitation.

C. Fugitive Road Dust Emissions

FACT for fugitive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

Concrete Setch Plant

IV. Emission Inventory

Arrual Enission Estas (Potential)	*** *		Te	ns/Year		
Source	YSP	PM-10	KOX	. VOC	CO	SOX
Cement Handi Ing Emissions	0.21	0,11				•••••
Batch Bin Loading of Cement/Sand/Aggregate	22.45	11.22	•			
Mixer Loading of Cament/Sand/Aggregate	44.90	22.45				
Transfer: Sand/Aggregate to Elevated Bins	44.90	22.45				
Plent Yard - Fugitives	0.15	0.06				
Local Access Rost	47.30	17.03				
Total Emissions	159.90	73.31	4.00	0.00	0.00	0.00

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEME ATION PLAN

riathead County Air Quality Control Program

15P PM-10 MGX VCC C2 SCX 1.16 0.52 123.00 246.00 123.00 246.00 123.00 13 Daily Emission Rates (Potential) * Cement Mandling Enfestions
Batch Ein Leading of Cement/Sand/Aggregate
Miser Leading of Cament/Sand/Aggregate
transfers Sand/Aggregate to Elevated Bins
Plant fard Frightives (Oaily)
Leads Access Rand (Dally) Total Enissiera * Asset on a 25 hour day. Cement Handling Emissions Process Rate: 31 tors/Ar Hours of operation: 8760 hr/yr (Maximum Production Rate) 119 Enlacione: Entesion Factor: 0.24 lbs/tcn (aFSSCC 3-05-011-07, pace 122) Control Efficiency: 99.35% (Fabric Filter) Calculations: 0.24 lbs/ton * 31 tons/hc ** 7.46 lbs/hr 7.44 lbs/hr * 3760 hr/yr * 0.0005 tons/lb * 32.19 tins/yr 32.59 tons/yr * (1.00 - 0.9935) = 0.21 tons/yr PH-19 Enissions: Emission Factor: 0.12 (br. (1835C 3-05-031-07, page 122)
Centrel Efficiency: 99.35% (Fabric Filter)
... Esteulations: 0.120 (br/ton * 3) tens/for * 3.72 (br/tor * 3.72 (br Batch Sin Leading of Coment/Sund/Aggregate (Maximum Production Rate) Process Rate: 125 cu.yds/hr Hours of operation: 8760 hr/yr ISP Enissions: Emission Factor: 0.02 (bs/ron (AFSSCC 3-05-031-06, page 122)
Control (Efficiency: 0X
Calculations: 0.02 (bs/ron * 125 cu.yds/hr * 2.05 tons/cu.yd + 5.13 (bs/hr
5.13 (bs/hr * 878) hr/yr * 0.0003 tens/(b * 22.45 trns/yr
22.45 tons/yr * (1.00 + 0.000) * 22.45 tens/r. PH-10 Enissions: Hiser Loading of Ement/Sand/Aggregate Process Rate: 125 cu.yds/hr Rours of operation: 8760 hr/yr IHazimm Froduction Bate) TSP Enlastons: Emission Factor: 0.06 (bs/fem (AFSECC 3-05-013-09, page 122) Control Efficiency: 0% Calculations: 0.06 (bs/fem * 125 cu.yds/hr * 2.05 tons/cu.yd * 10.25 (bs/hr * 126 kn/yr * 0.0005 tons/t) * 44.90 tons/yr * (1.00 - 0.000) * 44.90 tors/yr

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STATE OF MONTANA AIR QUALLE CONTROL IN EMENTATION PLAN subject:

Flathead County Air Quality Control Program

```
PH-10 Emissieru:
                                                Emission Factor: 0.02 lbs/ton (AFISCO 3-05-011-09, page 122)
Control Efficiency: 02
Calculations: 0.02 lbs/ton = 125 cu.yds/hr = 2.05 tons/cu.yd = 5.13 lbs/hr

Exaculations: 0.02 lbs/ton = 125 cu.yds/hr = 2.000 tons/lb = 22.45 tons/yr

22.45 tons/yr = (1.00 - 0.000) = 22.45 tons/yr
Transfer: Sand/Aggregate to Elevated Bins
                         Process Rate: 125 cu.yds/hr
Hours of operation: 8760 hr/yr
                                                                                                                                 (Maximum Production Este)
                          TSP Enissiers:
                                                   Emission Factor: 0.04 lbs/tcn (AFSCC 3-05-011-06, page 122)
Control Efficiency: 02
Calculations: 0.04 lbs/tcn * 125 cu.yds/hr * 2.05 tons/cu.yd * 10.25 lbs/hr
10.25 lbs/hr * 8760 hr/yr * 0.0005 tons/lb * 44.90 tons/yr
44.90 tons/yr * (1.00 - 0.000) * 44.90 tons/yr
                            PR-10 Edicional
                                                    Emission Factor: 0.02 (be/tm. (AFSSCC 3-05-011-06, page 122)

Control Efficiency: 0%

Calculations: 0.020 (be/tm.* 325 cu.yds/hr.* 2.05 tens/cu.yd.* 5.13 (bs/hr.

5.13 (bs/hr.* 2760 hr/yr.* 0.0005 tens/tb. 22.45 tens/yr.

22.45 tens/yr.* (1.00 - 0.000) = 22.45 tens/yr.
     Plant Tard - fugitives
                              Operating Rours: 8760 Hours/Tr
Vahicle Hites Traveled: 346 VMT/Tr
Control Efficiency is 50% for watering.
                      157 Emission factor is determined by the following equation:
                         E= 5.9%%(a/12)%(5/30)%(W/3)%0.7%(w/4)%0.5%PR

Where:
E= TSP Emission Factor in Lbs/Vehicle Mite Traveled (VMT)

av Particle sizing constant for TSP

s= Sitt Content in percent

3= Average Speed of whicles in mph

tw Average eight of vehicles in Ions

average number of wheels on vehicles

PR Precipitation Eatle based an the following:

130 Days with more than .01% of Precipitation

PR (363 Cays - 130 days)/365 Days = 0.6638
                                                                                                                                                                                                 1.0
8.7 %
•5.0 sph
20.8 Tons
4 wheels
        TSP Emissions:
TSP Emission factor
                                                                                                                 1.78 Lbs/VHT
                                              E(757)= (346 VHT/Yr)(1.78 Lbs/VHT)(0.5)
E(757)= 308 Lbs/Tr or 0.15 Tons/Tr
                         PHIC Emission factor is determined by the fellowing equation:
                                   E= 5.Ptt(s/12)*(S/30)*(W/3)**0.7*(W/4)**0.5*PE
Where:

E= FM10 Emission Factor in Ibs/vehicle Mile Treveled (WMT)

is Sitt Contant in percent

B-7 X

S= Average Speed of vehicles in End

b= Average marber of wheels in Tora

b= Average marber of wheels in Tora

can Average marber of wheels on vehicles

FR = Precipitation Ratio based on the following:

130 Days with more than .01* of Precipitation

PR= (355 cays - 130 days)/365 Days = 0.6438
```

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTANT OF PLAN Subject Lathed County
Air Quality Control
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```
PRIO Enissions:
                     PHIC Emission Factor: 0.64 Lbs/vml
                             E(PH10)= (346 WH)/Tr)(0.64 Lbs/VHT)(0.5)
E(PH10)= 111 Lbs/Tr or 0.06 Fors/Tr
Plant Tard - Fugitives (Daily)
                     Operating Ecura: $760 Hours/Tr
Venicle Hiles Traveled: 366 WH7/Fe
Control Efficiency is 50% for watering.
            75P Emission Fector is determined by the following emailing:
                         E= 5.9*k*(5/121*(3/30)*(W/3)**0,7*(W/4)**0,5*PB
                              5.9%*(s/12)*(3/30)*(W/s)***0,**(W/s)***0.2***s

E* 15P Editation factor in List/Vehicle Hile Travaled (VNT)
b* Particle sizing constant for 15P
s* 51L Content in percent
5.7 S
Average Speed of vehicles in mph
W Average vehicle for eyelicles in Tons
WE Average number of wheels on vehicles
PR* Assumes no precipitation
1,0000
                                                                                                                                                      1.0
8.7 %
5.0 sph
20.6 fpns
4 wheels
1,000
far Enissions:
                         TED Emission fatter
                                                                                                  2.77 Lbs/VMT
                          * ECTSP1* (346 WY/Tr)(2.77 tbs/WT)(0.5)
ECTSP1* 478 tbs/tr or 0.24 tons/tr or 1.31 trs/cay
              ANTE Emission Factor is determined by the following equation:
                        C= 5.0%=(s/12)*(s/30)*(s/30)*0,7*(s/4)**0,5**PR
Where:
E= PHIO Calaston factor in the/Vehicle Hilly Traveled (VMT)
ha Particle sixing constant for PHIO 0.20
as $ $\text{Sit}$ to constant for PHIO 0.20
as $ $\text{Sit}$ to constant in particle in Sit 5.0 ppl
Wa Average weight of vehicles in Sph 20.8 tons
as Average weight of vehicles in Tong
Average weight of vehicles in Vehicles
PAR Assumes no precipitation 4.0000
4.0000
 FRIG Enlesions:
                       PRIO Emission Factor: 1.00 Lbs/VHT
                              E(PH10)= (346 Vh1/Tr)(1,00 lbs/MH1)(0.5)
E(PH10)= 172 Lbs/Yr or 0.69 Tens/Tr or 0.47 lbs/day
                       Operating Haurs: 8760 Hours/Yr
Vehicle Miles fraveled: 93250 WHI/Fr
Control Efficiency is 50% for matering.
              TSP Emission factor is determined by the following acception:
                          E= 5.9"1"(s/12)"(5/30)"(V/3)""0.7"(V/4)""0.5"PR
                       Es 5.9%*(s/12)*(c/30)*(c/3)**(c/4)**(c/4)**(0,5°)*R
Where:

8* TSP Smission Factor in they whicle Mile Traveled (Witz)
he Marticle Miles constant for TSP
1.0
ar Sile Content in percent 5.7 x
Average Spent of vehicles in sph
10.0 mph
10.4 Average weight of wehicles in tons
10.0 mph
10.4 Average weight of wehicles in tons
10.4 Average mader of whell on vehicles
10.0 mph
11.0 Days with more than .01** of Precipitation
12.0 Says with more than .01** of Precipitation
13.0 Says with more than .01** of Precipitation
14.0 C365 days - 138 days / 365 Days = 0.6436
```

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STATE OF MONTANA AIR QUALITY TIROL IMPLEM TATION PLAN subject: Flathead County Air Quality Control

TSP taissiers:

```
ISP Emission Pactor: 2.07 Lbs/VAY
```

E(TEP)= (P1250 VMT/Tr)(2.07 Lbs/VMT)(0.5) E(TEP)= 94603 Lbs/Tr or 47.30 Tens/Tr

PRIO Exission factor is determined by the following equation:

```
1: 5.5°k"(s//2)"(3/30)"(W/3)""0.7°(W/4)"0.5°PR

Note:

P MID Emission factor in the Yvehicle Hite Traveled (YMT)

to Particle sizing constent for PHID

s silt Centent in percent

5: Average Speed of vehicles in mph
to Average wight of vehicles in Tons

Average Rumber of wheels on vehicles

Fix Precipitation fatio bases on the following:

13: Cays with more than .01" of Precipitation

Fix (35: days - 130 days)/355 bays = 3 6438
```

PRIO Enissiens:

PKID Emission Factor: 0.75 Lbs/VNT

E(PHIO)= (91250 VHT/Fr)(0.75 Lbs/VHT)(0.5) E(PHIO)= 34057 Lbs/Tr or 17.03 Tons/Tr

tocal Access Azzz (Deily)

Eperating Nours: 8760 Nours/Yr Validle Miles Traveled: 91250 VM1/Yr Control Efficiency is 50% for watering.

TEP Emission Factor is determined by the following equation:

```
E* 5.5*k*(s/12)*(s/30)*(w/3)**0.7*(w/4)**0.5*PR

Where:

E* TSP Emission Factor in Lbs/Yehicle Mile Traveled (WMT)

b* Particle sizing constant for TSP

s* Sitt Content in parcent

s* Average do rehicles in mph

Us Average wright of vehicles in Tons

w* Average wright of whicles on vehicles

PR* Assumes no precipitation

1.00

4 wheels
```

TSP Emissions:

TSP Emission Factor: 3.22 Lbs/VHT

E(TSP)= (91250 VMT/Tr)(3.22 Lbs/VMT)(0.5)-E(TSP)= 146936 Lbs/Tr or 73.67 Tons/Tr or 402.57 Lbs/day

PKID Emission Fector is determined by the following equation:

Es 5.5rk*(s/12)*(5/30)*(W/3)**0.7r(W/6)**0.5PR

Where:

Er PK10 Emission Factor in Lbszvehicle Kile Traveled (VMT)
ke Particle sizing constant for PR10 0.36
as Silt Content in percent 6.7 X
S Average Speed of vehicles in sph
Wa Average weight of vehicles in fons wa Average weight of vehicles in fons a 2.0 fems
wa Average multiple of wheels on vehicles
PR# Assumes no precipitation 1.00

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ember 19, 1993

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN

Subjection

riathead County Air Quality Control Program

PRID Enteriors:

PRIO Enission Factor: 1.16 Lbs/Ant

E(PRIO)= (F1250 VRT/Y/)(1.16 tbs//XT)(0.5)
E(PRIO)= 52897 tbs/fr or 26.65 lons/tr or 144.52 tbs/day

V Existing Air Quality and Impacts

On July 1, 1887 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP nonsisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and domolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA is now requiring the department to use a dispersion model to model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission limitations applicable to the Mo & W facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Disparsion modelling conducted using emissions from the Mo & W facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) indicated that the facility contributed significantly to the PM-10 concentrations in the Kaisspell nonattainment area.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kalispeli nonattainment area, it is necessary to reduce or establish new emission limitations for the Mc & W facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAOS for PM-10 will be atteined. These reductions in allowable emissions will be enforced through a signed stigulation.

With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressant) for haul road dust the MC & W facility should be able to operate at maximum design rates and remain in compliance with the stipulated emission limitations,

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STATE OF MONTANA AIR QUALLTY JATROL IMPLESSATION PLAN Subject:

Flathead County Air Quality Control

Kalitta's and Evergreen Nonattainment Boundaries

The size is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE. 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5339000mN, east to 703000mE, 5339000N, south to 703000mE, 5338000mN, east to 704000mE, 5338000mN, south to 704000mE, 5338000mN, west to 702000mE, 5336000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, north to 700000mE, 5335000mN, west to 700000mE, 5345000mN, north to 695000mE, 5345000mN, east to 700000mE, 5347000mN, east to 700000mE, 5347000mN, north to 70000mE, 5347000mN, north to 700000mE, 5347000mN, north to 700000mE, 5347000mN, north to 700000mE, 5347000mN, north to 700000mE, 5347000mN, north to 70000mE, 5347000mN, north to 700000

VII. Environmental Assessment

 $\Delta \kappa$ environmental assessment, required by the Montana Environmental Protection Act, was completed for this project. A copy is attached.

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STATE OF MONTANA
AIR QUALITY CONTROL
IMPLEMENTATION PLAN

Subject:

Flathead County Air Quality Control Program

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogswell Building, Heléna, Montana 59620 (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project of Application: McEtroy and Wilken, Inc., Air Quality Stipulation for Kalispell SIP.

Description of Project: A concrete batching plant with a maximum design rate of 125 cubic yards per hour. This concrete batching plant produces concrete for use in commercial and residential construction projects in the Kalispell area.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAOS) for particulate matter with an Aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and reconstitutes which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAOS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives are available.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency. A list of enforceable conditions and an analysis of conditions are contained in a signed stipulation.

Recommendation: An EIS is not required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control ecchniques at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attein the PM-TO NAAQS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau

EA prepared by: Michael Glavin

Date: July 22, 1993

Final Stipulation: 9/1

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Chapter 15 STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION

Subject: Air Quality Control Program

Potential Impact on Physical Environment

		Major	Moderate	Alinor	Nane	Unknown	Comments Attached
1	Terrestrial and Aquetic Life and Espitats	1			x		
2	Water Quality, Quantity and Distribution				х		
3.	Geology and Soil Quality, Stability and Mointure				x		
4	Vegetation Cover, Quantity and Cuality				x		
5	Assthetics				x	<u> </u>	
6	Air Quality			x			
7	Unique Endangered, Fragile or Limited Environmental Resource					x	
	Demands on Environmental Resource of Weter, Air and Energy		:		x		
5	Historical and Archaeological Eites					x	
10	Cumulative and Secondary Impacts	T	1	X .			

Potential Impact on Human Environment

	· · · · · · · · · · · · · · · · · · ·	Major	Moderate	Minor	None	Unknown	Cemme Atteche	
1	Social Structures and Mares				×			
2	Cultural Uniqueness and Diversity			•	χ.	;		
3	Local and State Tax Base and Tex Revenue				×			
4,	Agricultural or Industrial Production				x			
5	Human Health				x		•	
6	Access to and Quality of Recrectional and Wildernass Activities		,		x			
7	Quantity and Distribution of Employment		ļ		x	,		
4	Distribution of Population				x			
9	Demands for Government Services				x _			
10	Industrial and Commercial Activity				x.			
11	Locally Adopted Environmental Flans and Guals			x				
12	Cumulative and Secondary Impacts			T .	×		_	

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION ...AN

rathead County Air Quality Control

EXHIBIT 8 EMISSION LIMITATIONS AND CONDITIONS

Subje

McElroy and Wilken, Inc. P.O. Box 35 Kalispell, MT 58901

The above-named company is hereinafter referred to as "Mc & $\mathrm{W}_{\mathrm{s}}^{\pm}$

SECTION I: Affected facilities

Fight Location: Mc & W's two gravel crushers agricosts: at SWX, NWX.
Section 2. Township 28 North, Range 21 West, Flathead County, Montens. The mailing address of the facility is P.O. Box 35, Kalispell. 1/7 59901.

Equipment

- A ponable 1988 Baromac Impact Crusher (225 TFM), Model Mark II, Serial #764-385 with screen.
- A penable 1986 KHD Humbok Wadzg (300 TP) Model 8, Serial #462 012 with screen.

Section II: Conditions

- All visible emissions from the crusher plants are United to 15% opacity? (ARM 16.8.1423)
- Mc & W shall not cause or authorize to be discharged into the armosphere from other equipment auch as acress or transfer points any visible emissions that exhibit opacity! of 10% (45M 16.8.1423) 2.
- Mc & W shall not cause or authorize to be discharged into the AIC & W shall not cause or authorize to be discharged into the aurosphere from haul roads, access roads, parking lots, or the general plant property any visible flugitive emissions that exhibit opacity of 5% or greater. (RACT) 3.
- Mc & W shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with waterland or chemical dust suppressent as necessary to maintain compliance with the 5% opacity of CONT fimitation, (RACT)
- Water spray bars are required as necessary. If fugitive emissions are greater than 10% opacity. (ARM 15.5.1423) 5.

Opacity shall be determined according to 40 CFR, Part 50, Assencix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATE PLAN

Flathead County
Air Quality Control

- The portable 1988 Earomac Impact Crusher, Model Mark II, Serial #764-385 is limited to the following:
 - Production rate of 225 tons/hour.
 - b. Daily hours of operation of 24 hours/day.
 - c. Annual hours of operation of 4050 hours/year.
- 7. The portable 1986 KHD Humbolt Wedag, Model B, Serial #462-012 is limited to the following:
 - E. Production rate of 300 tons/hour,
 - b. Daily house of operation of 24 hours/day.
 - Annual hours of operation of 4050 hours/year.
- Total particulate emissions from this crusher in conjunction with total particulate emissions from any additional equipment at any individual site shall be less than 250 tons/year.
- Mc & W shall operate and maintain all emission control equipment and utilize all techniques specified in this stipulation to provide the maximum air pollution control for which they were designed.
- B. Reporting Requirements
 - If this crushing plant is moved to another location, a Notice of Intent to Transfer Location of Air Quality Stipulation must be published in a newspaper of general circulation in the area to which the transfer is to be made. This notice must be published at least 15 days prior to the move. Proof of publication and a change of location form must be submitted to the Montana Department of Health and Environmental Sciences, Air Quality Bureau (AQB), prior to the move. These forms are evailable from the AQB.
 - Mc & W shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. These records shall be available for inspection by the department and must be submitted to the department upon request.
 - Mc & W shall retein daily production numbers for a minimum of five (5) years.
 - Mo & W shall provide an annual report identifying any days in which the hours of operation, or the process rates in Section II.A. are exceeded. The report shall be submitted by March 1 of each year.

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Chapter 15

STATE OF MONTANA AIR QUALITY COL MIATION PLAN subject:

Flathead County Air Quality Control

- Annual production information shall be submitted to the ACB by March 1 of the following extender year. The information shall include:
 - Tons of gravel crushed in each crusher.
 - Tons of gravel bulk loaded. 5)
 - Hours of operation of each crusher.
 - Gallons of diesel used in each generator. d!
 - Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:
 - Number of vehicles:
 - Vehicle type; üŧ
 - Vehicle weight, lossed; Vehicle weight, unlossed;
 - iul
 - Number of tires on vehicle: v)

 - Average trip length; Number of trips per day; viil
 - Average vehicle speed; wiii
 - Area of activity; and
 - Vehicle fuel usage (gasoline or diesel) annual total.
 - Fugitive dust control for heal roads and general plant area:
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if applicable.
- The AQB may modify the conditions of this stipulation based on local conditions of any future site. These factors may include but are not limited to local terrain, C. meteorological conditions, proximity to residences, predicted ambient impacts which would cause or contribute to violations of a NAAOS or PSD increment,
- The department may require additional emissions testing on sources of emissions per ARM 16.8.704. Testing fiequirements. D.
- Mc & V/ must maintain a copy of the air quality stipulation at the Kalispell ready mix site and make that copy available for inspection by department personnel upon request.
- Me & W shall comply with all other applicable state, federal, and local laws and regulations.

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Chapter 15

STATE OF MONTANA AIR QUALL CONTROL IN MENTATION PLAN

Subject: Flathead County

Air Quality Control

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Section III: General Conditions

- A. Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, 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 scipulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amandments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- C. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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Volume II

STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTANT

Subject

Air Quality Control Program

Analysis of Conditions McElroy and Wilken, Inc.

I. Introduction

A. Affected Equipment

A Portable 1988 Baromac Impact Crusher, Model Mark II, Sarial #764-385 and a 1986 KHD Humbott Wedag, Model B, Serial #462-012.

B. Process Description

This plant crushes gravel for use in construction, repair, and maintenance of roads and highways. The maximum process rate of the 1988 Baromac Impact Crusher is 225 tons/hour. The maximum process rate of the 1966 KHO Humbott Wedag is 300 tons/hour.

Mc & W operates two (2) gravel pits in the Kalispell nonattainment area. They move their two gravel crushers between these pits in order to crush gravel for use in construction, repair, and maintenance of roads and highways. The Ross concrete batch plant is permanently located at the Mc & W Mein Pit, #2, In 1991 Mc & W moved their existing 1986 KHD Humbolt Wedag (300 TPH) to the Flathead River Bridge Pit #1 and at that time added the 1988 Earcmac Impact Crusher (225 TPH). Mc & W's two gravel pit locations within the Kalispell nonattainment area are:

Flathead River Bridge Pit \$1. (NWX, Sec 2, T28N, R21W, Flathead County) Mc & W Main Prt \$2. (NWX, Sec 8, T28N, R21W, Flathead County)

If this crushing plant is moved to another location, including Mc & W Main Pit #2. A Notice of Intent to Transfer Location of Air Quality Stipulation must be published in a newspaper of general circulation in the area to which the transfer is to be made as required in Section II.8.1. Any such transfer will be subject to department review as described in Section II.8.

II. Applicable Rules and Regulations

- A. ARM 16.8, Subchapter B, Ambient Air Quality, including but not limited to: ARM 16.8.821 Ambient Air Quality Standard for PM-10. This section states that no person may cause or contribute to concentrations of FM-10 in the ambient air which exceed the set standards. (See Section V)
- B. ARM 16.8. Subchapter 9, Prevention of Significant Deterioration This facility is not a PSD source since this facility is not a listed source and the potential to emit is below 250 tons per year of any pollutant.
- C. 16.8 Subchapter 14, Emission Standards, including but not fimited to:
 - ARM 15.8.1401 Particulate Matter, Airbonne. This section requires reasonable precautions for fugitive emissions sources and Reasonably Available Control Technology (RACT) for existing fugitive sources located in a nonattainment area. The department, in consultation with EPA, has

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determined that the use of chemical stabilization or paving on major hauf roads will satisfy these requirements.

 ARM 16.8.1403 Particulate Matter, Industrial Process. This section states that no person shall cause, allow, or permit to be discharged into the outdoor atmosphere from any operation, process, or activity, particulate matter in excess of the amount determined by using the following equation:

Allowable Emissions = 55 (225 tons/hr) 11 - 40 = 59,79 lbs/hr. Allowable Emissions = 55 (300 tons/hr) 11 - 40 = 63,00 lbs/hr.

The estimated total particulate matter emissions for the two gravel crushers are 31.50 lbs/hr and 42.00 lbs/hr, respectively, therefore the sources are in compliance.

- ARM 16.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% from all stacks constructed or altered since November 23, 1968. This rule is superseded by ARM 16.8.1423 (NSPS).
- 4. ARM 16.8.1423 Standards of Performance for New Stationary Sources (NSPS). The crusber plants were constructed in 1986 and 1988, respectively, so NSPS (40 CFR Part 60, general provisions, and Subpart OOO Non-Metallic Mineral Processing Plants) applies to both crushers. NSPS requirements are 15% opacity limitation for the crusher and 10% opacity for all other equipment such as screens or transfer points.

BACT/RACT Determination

Under section 189(a)(1)(C) of the amended C can Air Act of 1990, moderate area State implementation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispell area has been designated as a nonattainment for PM-10 by EPA, RACT must be epplied to those stationary sources which cause or contribute to the nonattainment area.

A. Crusher and Maserial Transfer Emissions

A BACT analysis was conducted at the time of the original permit application \$2716-00, and a determination had been made for controlling TSP and PM-10 emissions. The department has determined that BACT for this source is the application of water sprays as necessary to maintain compliance with the 15% opacity fimitation for the crusher and 10% opacity for all other equipment such as screens or transfer points.

The BACT determination made for this source is considered to met the RACT requirements since BACT is more stringent than RACT.

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E. Fugitive fload Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

Emission Inventory

Two Portable Gravet Erictors with Screening Plant

	Bred Sciences								
ionus) faissian Astes (Atlaushie) *				na/Year		111			
Swr Ce	T5P	8K-10	NOR	Ac:	55	121			
June 64	*********		******						
5528 Seronas Impact Environt	63.79	11.39 6.29	4.07	0,32	0.22	1.27			
turmics Engine Hadel VTAZE-G1	6,20	27.34	4.07	0,31					
Baronec Screen	36,45 85,05	15.19							
1526 EX3 Numbols Vedag Crusher		6.29	4.07	0.32	0.22	(.27			
Starpillar Generator	45.63	34.45		4.50					
EED HURBOLE SCHEEN	15,42								
metarial transfer	20,02	11 89							
Pile Ferming: Stacker	16.63	1 18							
#JIX Leading	0.67		•						
Feul Reads									
fotal	330.31	127.63	8.14	0.65	1,76	1.14			
* Asset on operating 6050 hours/year.				*					
Daily Enission Rates (Atlauable) **			t	bs/dsy					
1cures	747	PH- 10	MOX	YCC	ts	##3 ******			
	754.60	135.00	********						
1528 Baronac Impact Cruther	3.43	3.43	48.24	3.84	10.42	3.19			
Curmina Engine Hodel VTAZE-G!	432.00	324.00		2.2					
Baranac Screen		180.00							
1984 KHO Mumbalt Weday Crusher	3.43	3.43	48.24	3.64	12.62	2.1			
Caterpillar Generator	574.00			-					
KIS surbalt Screen		40.32							
Hazerial framefor	162.70	374.00							
file forming: Stactor		15.12		•					
Suit Exering	5.91			•					
RAUL Roads (Delly)						*****			
tetal		1512.25	96.48	7.44	20.83	6.3			

tetal ov gases on a 26 hour day.

1523 Baramac Impact Crusher

Process Reset 225 tons/Ar (Haximus Process Bata) Hours of operations 4050 hr/yr 24 hr/day

TSP Emissions:

thisaten factor: 0.28 tbs/ton (AP-C2, 8.19.2-1)
Control Efficiency: 505 - (Water Spray Bars or Meturally Ust Mater(a.)
Calculations: 0.28 tbs/ton # 235 tons/hr = 83.00 lbs/hr
63.00 tbs/hr = 653.00 rbs/hr = 127.58 tra/y63.00 tbs/hr = 127.58 tons/yr = (1.00 - 0.50) = 43.79 tons/yr
43.00 lbs/hr = 24 br/day * (1.00 - 0.50) = 756.00 lbs/da-

saroteates Of-aq

Emission Factor: 0.05 lbs/ton (Ratio between TSF and PR-10 from 4182222 Control Efficiency: 30% (Vater Spray Bars or Maturally Mac Fateric.) Calculations: 0.050 lbs/ton *235 tens/hr = 11.25 lbs/hr = 11.25 lbs/hr = 2408 hr/yr = 0.0005 tons/lb = 22.75 tons/r = 11.25 lbs/hr = 24.78 tons/hr = 24.78 tons/h

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AIR QUALITY COMMENTATION PLAN

Subject: Flatherd Control
Air Quality Control

Cummins Engine Hodel YTAZE-31

Hours of operations 4050 ke/yr 24 ke/day

TSJ Fairsica

Extesion Factor: 0.143 lbs/hr (ap-42, 3.3.2)
Catculations: 0.143 lbs/hr = 4050 hr/yr = 0.0005 tens/ib = 0.29 tons/yr
0.143 lbs/hr = 2.6 hr/say = 3.43 lbs/csy

PH-10 Ealssiers:

Emission factor: 0.143 lbs/hr (AP-42, 3.3.2)
Cateulations: 0.143 lbs/hr * 4656 br/yr * 0.0005 tona/lb * 0.29 tona/yr
0.143 lbs/hr * 26 hr/day = 3.43 lbs/cay

NOs Emissions

Taission Factor: 2.01 lbs/hr = 650 hr/yr = 0.0005 tona/lb = 6.07 tona/yr = 2.010 lbs/hr = 650 hr/yr = 0.0005 tona/lb = 6.07 tona/yr = 2.010 lbs/hr = 21 hr/pay = 61,24 lbs/day

VCC Emissions:

Emission Factor: 0.160 lbs/hr (43-62, 3.3.2) Calculations: 0.160 lbs/hr * 4050 hr/yr * 0.0005 com/lb * 0.32 toms/yr 0.160 lbs/hr * 26 hr/dsy = 3.66 lbs/day

CO Enissient:

Emission factor: 0.434 (bs/hr - 4AP-42, 3.3.2) Calculations: 0.434 (bs/hr = 4050 hr/yr = 0.0005 cons/10 = 0.83 tons/yr 0.434 (bs/hr = 24 hr/dsy = 10.42 (bs/dsy

SOx Exissions:

Emission Factor: 0.133 lbs/hr (AP-62, 3.3.2)
Calculations: 0.133 lbs/hr + 4,050 hr/yr + 0,0005 tons/lb = 0.27 tons/yr
0.133 lbs/hr + 26 hr/ggy = 3,19 lbs/day

Baronac Screen

Process Rate: 225 tons/or (Raxinum Process Rate)
Hours of operation; '4050 hr/yr 21 hr/day

TSP Emissions:

PH-10 Enfasiona:

Emission factor: 0.12 (bs/tm (AF-42, 8.19.1-1)

Control Efficiency: 3CS (bs/tm *25 tang/n *27.00 bs/m 27.00 bs/m *25 tang/n *27.00 bs/m *27.00 bs/m *36.65 tans/y *54.65 tang/n *4.050 hr/m *30.005 tans/b *36.65 tans/y *54.65 tang/n *4.050 hr/m *4.050 hr/m *36.65 tans/y *27.00 bs/m *26.65 tang/n *1.00 *0.50) *27.36 tang/m *36.65 tang/m *27.00 bs/m *26.65 tang/m *1.00 *0.50) *325.60 tang/m *36.65 tang/m *36.

1986 END Hurzsit Weder Crusher

Process Rate: 300 tons/hr (Haximum Pricess Rate) Rours of aperation: 4050 kr/yr 24 br/say

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147 Emissions:

Emission Factor: 0.28 (ts/ton. (AP-42, 8.10.2-1)
Control Efficiency: 502 (Water Epray Res or Naturally Wel Material)
Catculations: 0.28 (ts/ton. 300 tons/hr = 61.00 lts/s.

80.00 lbs/hr = 6500 hr/yr = 0.003 tons/h = 170.1 tons/yr
170.10 tons/yr = (1.00 - 0.50) = 85.05 trz/y.

81.00 lbs/sr = 24 hr/dsy = (1.00 - 0.50) = 1015.00 lbs/dsy

Di. 10 Emiations:

Emission Factor: 0.05 lbs/ton (AP-62, 8.19.2-1)
Lootrol Efficiency: 50% (Mater Spray Bars or Naturally Net Material)
Lootrol Efficiency: 5.0% (Mater Spray Bars or Naturally Net Material)
Lootrol Efficiency: 5.0% (Mater Spray Bars or Naturally Net Material)
Lootrol Efficiency: 50% (Material)
Lootrol Efficiency: 10.00 lbs/hr = 10.00 lbs/hr = 15.00 lbs

Catacoillar Congrator

Hours of operation: 4050 hr/yr 24 hr/day

15P Enissions:

Emission Factor: 0.143 lbs/hr (AP-42, 3.5.2)

calculations: 0.143 lbs/hr * 4050 hr/yr * 0.0005 tens/th * 7.17 tors/yr

0.143 lbs/hr * 24 hr/dsy * 3.43 lbs/dsy

BH-10 Emissions:

Emission Factor: 0.113 lbs/hr (AP-42, 3.3.2) calculations: 0.163 (bs/hr * 4050 hr/yr * 0.005 tota/it * 1.27 tons/yr 0.143 lbs/hr * 26 hr/day * 3.43 lbs/day

HOR Emissions:

Enlaston factor: 2.01 (be/hr (AP-42, 3.3.2) Calculations: 2.01 (bs/hr = 6050 hr/yr = 0.000) tens/tb = 4.07 tens/yr 2.010 (bs/hr = 24-hr/day = 48,24 (bs/day

VOC Emissions

Enfasion Factor: 0.160 lbs/hr (AP-C2, 3.3.2)

Enfasion Factor: 0.160 lbs/hr 4 6050 hr/yr 4 0.0005 tms/lb 4 2.32 tcrs/yr
Calculations: 0.160 lbs/hr 4 24 hr/day 6 3 64 lbs/day
0.160 lbs/hr 4 24 hr/day 6 3 64 lbs/day

co Enissions:

Emission factor: 0.634 lbs/hr (AP-42, 3.3.2)
Emission factor: 0.634 lbs/hr = 1650 hr/yr = 0.0005 tons/th = 0.28 tons/yr
Emission factor: 0.634 lbs/hr = 1650 hr/yr = 0.0005 tons/th = 0.28 tons/yr
0.634 lbs/hr = 24 hr/day = 10.42 lbs/day p

SOR Emissions:

Emission Factor: 0,353 lba/hr (AP-42, 3.3.2) Calculations: 0,333 lba/hr 4 4050 hr/yr 4 0,0005 tens/12 x 0,27 tens/yr 0,133 lba/hr 4 2t hr/day 4 3,19 lba/day

ENG HUMBOLT Screen

Process Rate: 300 toms/hr (Maximum Process Rate)
Nours of operation: 4050 hr/yr 26 hr/day

ISP Emissions:

Emission Factor: 0.16 tbs/ten (AP-62, 8.19.1-1)
Control Efficiency: 50% (Mater Spray Bars or Barratty Wat Material)
Catculations: 0.16 tbs/ten = 300 tans/hr = 66,00 tbs/hr = 4650 hryr = 0.005 toss/tt = 97.20 tens/yr = 48.60 tbs/hr = 26 br/day = (1.00 - 0.50) = 48.60 tcs/hr = 26 br/day = (1.00 - 0.50) = 175.00 tbs/day

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DW-10 Enirelemp

Emission Factor: 0.12 lbs/ton (AP-C2, 8.19.1-1)
Control Efficierty: 512 (Water Spray Bars or Naturally, Wet Material)
Calculations: 0.122 lbs/ton * 300 tons/hr = 36.00 lbs/hr
36.00 lbs/hr * 4650 hr/yr * 0.0005 tons/lb = 72.50 tons/yr
72.50 tons/yr * (1.00 = 0.50) = 36.45 tons/yr
36.00 lbs/hr * 24 hr/day * (1.00 = 0.50) = 632.00 lbs/day

Material Transfer

Process Rate: 525 tons/hr (Meximum Process Rate)
Kours of operation: 4050 hr/yr 24 hr/day

75P Emiasicra:

PH-10 Emissions:

Emission factor: C.CCC: Ubs/con (AFSCC, 3-05-025-03)
Control Efficiency: 50E (Water Spray Bars or Maturally Met Raterial)
Calculations: 0.005 Ubs/ton * 525 cons/hr * 3.35 Ubs/hr
3.35 Ubs/hr * 4000 hr/yr * 0.0005 tons/b * 6.80 tons/yr
6.50 tons/yr * (1.00 * 0.50) = 3.40 tons/r
3.25 Ubs/hr * 26 hr/day * (1.00 * 0.50) = 40.32 Ubs/cay

Pile forming: Stacker

Process Eate: 525 tons/hr (Maximum Process Eate)
Hours of specation: 4050 hr/yr 26 hr/osy

TSP Emissions:

Emission Factor: 0.13 lbs/ton (AF3SCC, 3-05-025-05)
Control Efficiency: 502 (usear Spray Bara or Naturally Vet Material)
Calculations: 0.13 lbs/ton * 525 cons/hr = 68.25 lbs/hr
45.25 lbs/hr * 605 hr/yr * 0.0005 fons/lb = 138.21 tons/yr
133.21 tons/yr * (1.00 - 0.50) = 69.70 tons/hr
28.25 lbs/hr * 24 hr/day * (1.00 - 0.50) = 819.00 lbs/Cay

PH-10 Exissions;

Emission Factor: 0.06 lbs/ton (AFESCC, 3-05-025-05)
Control Efficiency: 502 (Vater Sprsy Bers or Haturally Vat Material)
Calculations: 0.050 lbs/ten * 255 cons/fr = 31,50 lbs/hr * 4050 hr/yr = 0.0005 tena/tb = 43.79 tons/yr
43.79 tons/yr * (1.00 - 0.50) = 31.89 tons/yr
31.50 lbs/hr * 24 hr/day * (1.00 - 0.50) = 178.00 lbs/cay

Bulk Loading

Process Rate: \$23 tors/hr (Maxisum Process Rate)
Nours of speration: 6050 hr/yr 24 hr/day

TSP Emissions:

Emission Pactor: 0.02 (bs/ton (AFSSCC, 3-05-025-06))
Control Efficiency: 30% (Vater Spray Bars or Esturally Met Material)
Coleculations: 0.02 (bs/ton * 525 tons/fr * 10.50 (bs/hr * 21.2625 tons/yr * 0.003 tons/tb * 21.2625 tons/yr 21.26 tons/yr 10.50 (bs/hr * 26 hr/day * (1.00 * 0.50) * 126.00 (bs/cay

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PH-18 Emissions:

Emission Factor: 0.0024 lbs/ton (APSSCC, 3-05-025-05)
Centrol Efficiency: 50% (Water Spray Bars or Naturally Wet Materiet)
Calculations: 0.002 lbs/ton * 525 lones/hr * 1.26 lbs/hr * 1.26 lbs/hr * 4.050 he/yr * 0.0005 tons/lb * 2.55 tens/yr * 2.55 tens/yr * (1.00 * 0.50) * 1.28 tons/yr * 1.26 lbs/hr * 24 he/dey * (1.00 * 0.30) * 15.12 lbs/day

Paul Trade

Operating Neurs: 4050 nours/fr Vehicle Hilas Traveled: 492 VMT/Fr (Eased on Maximum Production Rate) Control Efficiency is 50% for Matering.

752 Emission factor is determined by the following equation:

157 Stissions:

TSP Emission factor: 4.02 tbs/VPT

E(TSP)= (892 VM2/fr)(4.02 Lbs/VMT)(0.5) E(TSP): 1390 Lbs/fr er 0.69 Toms/fr

FN10 Emission Factor is determined by the following equation:

f= 5.9"%"(s/12)"(\$/30)"(W/3)""0.7"(U/4)""0.5"PH

Fe 5.-Pth-(s/12)*(5/30)*(W/3)**0.7*(W/L)**0.3***

Where.

Re PMIG Exission factor in ths/Vehicle Hile Traveled (VMT)

As Particle eiting constant for PMIG

So Sitt Content in percent

So Average Speed of Vehicles in mph

Whaverage weight of vehicles in Tons

Whaverage mumber of wheels on vehicles

As Average Rumber of wheels on vehicles

PAR Praceipitation Rettle based on the fallowing:

130 Days with more than .01" of Pracipitation

PRR (365 days * 130 days)/365 Days * 0.6438

INIO Inicaiene:

PHIS Emission feature 0.44 Los/VHT

ECPHID) 4 (692 WHT/Yr)(0.64 Lbs/WH1)(0.5) ECPHID) 4 222 Lbs/Fr or 0.11 Tems/Fr

Riul Reads (Daily)

Operating Neura: 0.000 Hours/Fr Yehicle Hiles Traveled: 692 VMT/Fr (Based on Maximum Production Rate) Control Efficiency is 502 for watering.

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157 Emission Factor is extermined by the following regustion:

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Ex 5.9%4"(4/12)*(4/30)*(4/1)**0.7*(4/4)**0.5*##
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For the finishing factor in the/vehicle Mile Traveled (MT)
he Parkicle sizing constant for 169 1.0
so Bits Content in patent 8.7 %
BA Average based of vehicles in apn 10.0 ap

TSP Enizations:

159 Emission Factor: 6.24 Lts///

E(15P)= (692 VHT/Tr)(6,26 Lbs/HT)(9,5) E(15P)= 2159 Lbs/Tr or 1,62 Tera/Tr or 5,91 lbs/dey

FAID Exission factor is determined by the following eq. tion:

En S. GPR (2/12) PCS/303* (V/5) PCT. (P(V/4) PPD. 5 PPR

Mhere:
En PRIO Edission factor in its/vehicle Mils Traveled (VMT)
En Particle sizing contant for PRIO 0.36
BY Sitt Content in parcent 8-7 K
SA Average height of vehicles in moh 5.0 Pch 30.8 Fcx W
Average height of vehicles in fons 4.0 Pch 20.8 Fcx W
PRA Assumes no procipitation 1.0000

9810 Emission Festor: 1.00 Lbs/AT

E(PRIC) = (692 VMI/TF)(1.80 Lb//MI)(0.5) E(PRIO) = 344 Lbs/Yr ar D.17 tens/Fr or 0.94 lbs/day

Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (1): 405) for particulate matter with an aerodynamic diameter of 10 microns or less (FM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-1Q. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health
Department to submit the Katspel PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a mode) which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA is now requiring the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission limitations applicable to the Mc & W facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Mc & W facility at its potential to emit lemissions associated with maximum design capacity or as simited by ARM 16.8.1403t indicated that the facility

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contributed significantly to the PM-10 concentrations in the Kalispell nonattainment area.

In order to demonstrate compliance (through dispersion modeling) with the FM-10 NAAQS in the Kalispell nonattainment area, it is necessary to reduce or establish naw emission limitations for the Mc & W facility. The new emission limitations in this document, in conjunction with similar limitations on other Kelispell area facilities, demonstrates through dispersion modeling that compliance with the NAAQS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressant) for haul road dust and restrictions on annual operating hours the department has determined that the Mc & W facility should be able to operate at maximum design rates and remain in compliance with the stipulated emission limitations.

Kalispell and Evergreen Nonattainment Boundaries

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5339000mN, east to 703000mE, 5339000mN, south to 702000mE, 5338000mN, east to 704000mE, 5338000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, mest to 702000mE, 5336000mN, onth to 704000mE, 5335000mN, onth to 704000mE, 5335000mN, onth to 704000mE, 5335000mN, east to 702000mE, 5345000mN, onth to 695000mE, 5345000mN, east to 700000mE, 5345000mN, north to 700000mE, 5347000mN.

VI. Environmental Assessment

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

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STATE OF MONTANA
AIR QUALITY
IMPLEY A PATION PLAN

bubject:

Flathead County Air Quality Control

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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Air Quality Bureau
Cogswell Building, Helena, Montana 59620
(406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: McElroy and Wilken, Inc., Air Quality Stipulation for Kalispell SIP.

Description of Project: This stipulation is for the operation of a portable 1988 Baromac Impact Crusher, Model Mark II, Serial #764-385 and a 1986 KHO Humbolt Wedag, Model B, Serial #462-012 and gravel screening facility. This plant crushes gravel for use in construction, repair, and maintenance of roads and highways, and for use in concrete batching.

Be, efits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EFA) promulgated new National Anionent Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 Scate implementation Flan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kallspell area sources will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives available.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency. A list of enforceable conditions and an analysis of conditions are contained in a signed stipulation.

Recommendation: No EIS is required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this operation will be reduced by further reducing the allowable hours of operation. This action makes the control equipment, control techniques, and limitations on operating hours at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAOS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau.

EA prepared by: Michael Glavin

Date: July 22, 1993

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Volume 11 Chapter 15

STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENT TON PLAN Substitute:

Flathead County Air Quality Control Program

Potential Impact on Physical Environment

		Major	Moderata	Moor	None	Unknown	Commente Attached
1	Terrestrial and Aquetic bile and Habitate	Ĺ			×		1
1	Water Quelity, Quantity and Distribution				х		
1	Geology and Soil Quality, Stability and Moleture		,		x		
4	Vegetation Cover, Quantity and Quality		٠		x		
1	Assibelies				x		
ŧ	Air Dunkty	<u></u> .		x			
7	Uruque Endangered, Fragile or Limised Environmental Resource					X	
1	Demands on Environmental Resource of Water, Air and Energy				×		
4	Historical and Archanological Sites				1	*	į.
10	Completive and Securitary Impacts	T		×			I

Potential Impact on Human Environment

		Major	Moderate	Miner	None	Unknown	Comments Attached
1	Secial Senictures and Wores				x		
7	Cultural Uniqueness and Deversity		•		×	·	
3	Little and State Tax Sale and Tax Revenue				x		
đ	Adventural or Industrial Production				,	_	
1	Formen Realth				*	-	
1	Access to and Quality of Recreational and Wilderness Activities				*		
7	Quantity and Distribution of Employment				x		<u> </u>
ı	Distribution at Populeum				x		
3	Demands for Government Services				×		
10	Industrial and Commercial Activity				z		
13	Listoy Accessed Environmental Plans and Cia's			×			
12	Cumulative and Secondary Impacts				x		

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Chapter 15

STATE OF MO ...vA TITY CONTROL AIR OF **LEMENTATION PLAN** Subject: Flathead County Air Quality Control Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of In the Matter of Compliance of)
Montana Mokko, Kalispell,)
Montana, with 40 CFR 50.6,)
National Ambient Air Quality |
Standard for Particulate Matter)
and ARM 16.8.821, Montana Ambient)
Air Quality Standard for PM-10)

STIPULATION

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The Department of Health and Environmental Sciences ("Department"), and Montana Mokko ("MT Mokko"), hereby stipulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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BACKGROUND:

1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as 27

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amended by the Clean Air Act Amendments of 1990 ("Act").

- 2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since e standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- 5. On August 7, 1987, the Kalispell area was designat-18 19 ed as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Federal Clean Air 'Act of all Group I areas, including 21 Kalispell, are designated by operation of law to be in nonattainment for the particulate matter NAAQS. 22 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. <2 24 U.S.C. 7513(a), as amended. For areas designated as "moder-26 ate", the state was required to submit to EPA an implementa-

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAQS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. The implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition project, and barren ground.
- 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A major

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deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter

- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicted that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The department has determined that emission limitations applicable to MT Mokko were in some cases nonexistent (no permit requirements) or significantly higher than actual emissions during the CMB modeling study.
- 11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the

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results of this modeling, the PM-10 emissions from MT Mokko were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. Furthermore, both parties agree that based upon these modeling results, revised emission limitation for MT Mokko are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for MT Mokko and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, both parties agree that revised emission limitation must be imposed upon MT Mokko.

B. BINDING EFFECT

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12. The parties to this Stipulation agree that any such emission limitations placed on MT Mokko must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to MT Mokko. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Montana Mokko") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves

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1 it or if future violations of the particulate matter NAAQS or PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Board is the state agency that is primarily. responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Under Sections 75-2-101, at seg., the Board is required to protect public health and welfare by limiting the levels and concentrations of air poliutants within the state and such responsibility includes the adoption of emission standards (Section 75-2-20), MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell nonattainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the 22 same as enforceable measures applicable to MT Mokko.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to statute.

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17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in the permit issued to the air source/party to this agreement (if issued), supersede the less stringent permit conditions. 18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this

Stipulation for the Board to issue an Order which requires the imposition of the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stipulation, and adopts the same as enforceable measures applica-

ble to MT Mokko. 12

MONTAHA MOKKO

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

J. Rowinson

Andrews.

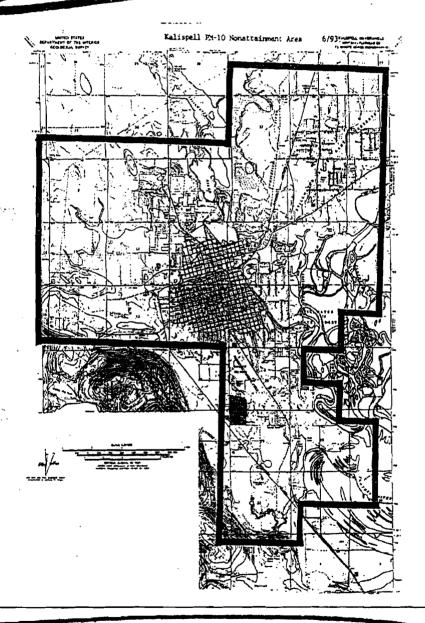
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EXHIBIT &

Montana Mokko P.O. Box 2820 Kalispell, MT 59901

The above-named company is hereinafter referred to as "MT Mokko."

SECTION I: Affected Facilities

A. Plant Location:

> A 54 MMBF/yr lumber mill located at \$55 Whitefish Stage Road, in Kalispell, Montana (Section 22, Township 29 North, Range 21 West, Flathead County).

- Affected Equipment and Facilities:
 - One (1) 6 MMBTU/hr natural gas boiler (1970);

 - Dry kiln; Log debarker;
 - Log sawing deck:

 - Slab chipper; Chip bin rall loadout with targe: box;
 - Lumber planer with cyclone;
 - Finger jointer with cyclone:
 - Shaving bin truck loadout with two (2) cyclones;
 - Fugitive emission from haul trucks and log handling.

SECTION II: Limitations and Conditions

- A. Emission Limitations and Conditions:
 - MT Mokko shall not cause or authorize emissions to be discharged into the outdoor atmosphere from thy source installed after November 23, 1968 that exhibit an opacity' of twenty percent (20%) or greater averaged over six (6) consecutive minutes. This applies to stack emissions from the slab chipper, planef cyclone, finger jointer cyclone, amassons rom trie siab cripper, planer cyclone, ringer jointer two (2) shaving bin cyclones and the natural gas boiler. (ARM 18.8.1404)
 - MT Mokko shall not cause or authorize emissions to be discharged into the atmosphere from access roads, parking lots, log decks, or the

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Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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general plant property any visible fugitive emissions that exhibit opacity² of 5% or greater averaged over six (6) consecutive minutes. This applies to fugitive emissions from any hauling, handling, loading, and unloading operation. (RACT)

- MT Mokko shall treat all unpaved portions of the hauf roads, access roads, parking lots, log decks, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 5% opacity2 limitation. (RACT)
- MT Mokko shall operate and maintain all emission control equipment, identified in Section I.B, as designed to provide the maximum control of air pollutants.
- Operational Reporting Requirement:

MT Mokko shall supply the Department of Health and Environmental Sciences Air Quality Bureau with an annual emission inventory for the listed emission points. The annual emission inventory report must be submitted in writing to the department by March 1 of the following calendar year. The emissions inventory shall include the following production and emission inventory information:

- Sawmill:
- total hours of operation.
- total mill-cut for the year.
- Planer:

5.

- total hours of operation. - total mill cut for the year.
- . 3. Finger Jointer:
- total hours of operation.
 total mill cut for the year.
- 4. Slab Chipper:

- · total hours of operation. Million cubic feet of natural gas burned in the natural gas boiler.
- 6. Hours of operation and flow rate for each of the following cyclones:
 - Planer cyclone:
 - b Finger jointer cyclone;

 - Shaving bin cyclones from the planer; Shaving bin cyclones from the finger jointer.
- 7. Fugitive dust information consisting of a listing of all plant vehicles including:

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² Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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- a. Vehicle type:
- b. Vehicle weight loaded;
- c. Vehicle weight unloaded:
- d. Number of tires on vehicles:
- e. Average trip length;
- f. Number of trips per day:
- g. Average vehicle speed; h. Area of activity; and
- i. Vehicle fuel usage (gasoline or diesel in gallons) annual total.
- 8. Fugitive dust control for haul roads and general plant area.
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if applicable.
- C. The department may require additional emissions testing on sources in the plant per ARM 16.8.704 Testing Requirements.
- D. MT Mokko must maintain a copy of the air quality stipulation at the Kalispell planer mill and make that copy available for inspection by department personnel upon reduest.
- E. MT Mokko shall comply with all other applicable state, federal and local laws and regulations.

Section III: General Conditions

- A. Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining date, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this stipulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- C. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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Analysis of Conditions Montana Mokko

I. Introduction/Process Description

Montana Mokko operates an existing lumber mill located at 955 Whitefish Stage Road, in Kalispell, Montana. The mill receives logs from area forest product companies and stockpiles them in the log deck prior to processing them in the lumber mill. Montana Mokko is currently leasing the Kalispell Pole and Timber site to expand their log storage area.

The logs are debarked, cut into rough lumber, and stacked in bundles to be dried. The sawmill uses conveyor belts to transfer the bark and sawdust to their respective bins. The emissions from these sources are negligible. The rough lumber is then air dried or dried in the dry kiln to reduce shrinkage in the final dimension cut lumber. The dry kiln is heated by a natural gas boiler. The log slabs are run through a chipper and the wood chips are collected and transferred pneumatically to a target box and loaded into rail

Once the lumber is dry it is run through a thickness planer where the rough cut lumber is planed to the proper dimensions. The planed lumber is then cut to the proper length using a trim saw. The final dimension lumber is then inspected and shipped. The planer shavings and saw dust from this process are collected and transferred pneumatically to the wood shavings bin and loaded into trucks.

in 1991, Montana Mokko constructed a new building for a finger jointer process. This process takes trim blocks and off-grade lumber and cuts out knots and joins the pieces to make door and window moldings. Montana Mokko receives the lumber supplies for the finger jointer from their own lumber mill and trim blocks and off-grade lumber from other area lumber mills. The sawdust and shavings from this process are collected and transferred pneumatically to the wood shavings bin and loaded into trucks.

Montana Mokko originally had a permit to operate a tepee burner (Permit #460), which is used for the disposal of the wood wastes generated from the saw mill and planing processes. In 1976 a new shavings bin was installed for the collection, storing, and shipping of marketable wood wastes. From 1976 until June 1992, the tepee burner was limited to cleanup and overflow of shavings when the bin is full. In June 1992, the tepee burner was dismantled and alternate means of disposing of the unmarketable wood wastes are now being used.

In 1992, Montana Mokko laid approximately 20,000 sq. ft. of asphalt in the lumber yard in order to control fugitive dust from the use of forklifts. Also, the main runways in the log deck were graveled with large rock.

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- It. Applicable Rules and Regulations
 - A. ARM 16.8.821, Ambient Air Quality Standards for PM-10:

This section requires that the hourly and annual average concentrations of PM-10 in the ambient air not exceed the set standards. (See Existing Air Quality and Monitoring Requirements, Section III)

 ARM 16.8, Subchapter 9, Prevantion of Significant Deterioration of Air Quality (PSD):

ARM 16.8.921 Definitions. MT Mokko's lumber mill is not a 'major stationary source' because it is not a listed source and does not have the potential to emit more than 250 tons of any pollutant.

- C. ARM 16.8. Subchapter 14. Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborne. This section requires reasonable precautions for fugitive emissions sources and Reasonably Available Control Technology (RACT) for existing fugitive sources located in a nonattainment area. The department, in consultation with EPA, has determined that the use of chemical stabilization or paving on major hauf roads will satisfy these requirements.
 - ARM 16.8.1404 Visible Air Contaminants. This section requires an opacity limitation of 20% for all stacks or vents installed after November 23, 1968.

III. RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implementation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispell area has been designated as nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Natural Gas Editer

The natural gas boiler was installed in 1970 and is therefore limited to 20% opacity as per ARM 16.8.1404. Since natural gas is a clean burning flut with negligible PM-10 emissions, the department has determined that RACT for this source is no controls.

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Wood Waste Collection Cyclones

The planer cyclone, finger jointer cyclone, and two (2) shaving bin cyclones were installed after 1958 and are therefore limited to 20% opacity as per ARM 16.8.1404. A cyclone would provide the best level of particulate control (85%). MT Mokko currently uses a cyclone for particulate control from the slab chipper, planer, finger jointer, and two cyclones on the shaving bin. The department has determined that the cyclones will constitute RACT for these sources. SOUTCES.

Fugitive Road Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

IV. Emissions Inventory

Lumber & Flance Hill

arrual Emission Ratus (Potential) *	152	PH-10	BQX	TCDS/YEST VOC	¢o	5 0 1
Source		0.34	3,4	E, 15	0.92	10.0
Natural Gas Boiler	¢.36		4.00			
Leg Debarting	2.25	1.26				
	4.50	2.47				
Lag Saking	1.76	3,50				
Chipper Cyclane	1.00	6.71				
This gin Reit Londout	8.76	3.50				
Planer Cyclone		3.50				
Singer Jointer Cyclone	8.76					
Shaving Bin Cyclone from Planer	8.76	3.50		•		
Shaving air cyclam from lointer	8.74	3.50				
Staving Bin Cyclone from Jointer	54.26	37.92				
Shaving Bin Truck Loodout	12.72	4.58				
noe fuel Bin Truck Leadout	5.32	0.11				
Reut Boads - Fugltives		1.30				
ing Dect - Sugitives	14.5	1.34				********
tod nare	*******			8 0.15	0.92	0.02
	126,67	91-51	3.6	4 0.13	0.74	

[.] Based on appraising 8760 hours/year.

Cally Emission Estas (Potential) as

•	758	PH - 10	HOX	VOC	63	\$0x
lower	********		*******		*********	0.00
**	1.97	1.47	20.16	8.84	3.04	4.44
Hesurel Cas Heline	12.32	6.78				
Log Debarking	26.64	13.55				
Log Saving	44.00	19.20				
Chipper Cyclere	10.94	3.89				
Chip Sin Reil Landout	48.00	18.20				
Flamer Cyclone	48.00	19.20				
slamer interter Evelore	AB.00	19.20				
There are the first one from Fights	68.00	19.20				
Shaving Bin Creione from Jointer	300.42	185,37				
country his truck LONGOUT	49.68	25.09				
wan tent bin Truck Leadous	2.71	0.57				
Band Hones - fugit)ves (DEI(Y)	\$5.70	11.01				
tes tock - Jugitives (Daily)	34.10					,,,,,,,,,,
.,,		339.66	10.14	0.84	5.04	0.09
foral Existina	693.60	3-4.00				

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Emission Pactor: 13.7 [os:1276 ft*3 gss [AP-42, 1,4-1, Revised Oct 52] Control Efficiency: 0.0% [vet Consumption: 52.56 1076 ft*3/yr (Maximus Dasign) Calculations: 52.56 1076 ft*3/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 tens/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 tens/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 tens/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 tens/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 tens/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 tens/yr * 13.7 lbs/1076 ft*3 gs; * 0.0005 tens/ib * 0.36 te PH-10 Colsaions: Emission factor: 13.7 lbs/10°6 ft°3 ges (AP-42, 1.4-1, Revised Oct 92) Control Efficiency: 0.0% (Maximum Besign) Calculations: 32.56 * 10°6 ft°3/yr * 13.7 (cs/10°6 ft°3 gas * 0.0005 tons/10 * 0.36 tons/yr MOR Emissiane:

Emission Factor: 160 lbs/10°6 ft°3 gas (An-62, 1.4-1, Revised Oct 52) Control Efficiency: 0.0% Fuel Consumption: 52.56 10°6 ft°3/yr (Maximus Design) Calculations: 32.56 °10°6 ft°3/yr * 141 lbs/10°6 ft°3 gas * 0.0065 toms/to = 3.68 toms/yr

VOC Enissions:

Emission Factor: 5.8 lbs/10°6 ft°3 gas (AP-42, 1.6 1, Revised Oct 92)
Control Efficiency: 0.0%
Fuel Consuption: 52.56 to 10°6 ft°3/yr (Maximum Design)
Cateulations: 52.56 to 10°6 ft°3/yr * 5.2 sts/10°6 ft°3 gas * 0.0005 cons/tb + 0.15 tons/yr

Emission factor: 0.6 (bs/)0°6 ft'3 gas (AP-62, 1.6-1, Revised Oct 92)
Control Efficiency: 0.05
Fuel Consumption: 52.56 0°6 ft'3/yr (Meximus Design)
Celculations: 52.56, °,10°6 ft'3/yr ° 0.6 (bs/)0°6 ft'3 gas ° 0.0005 tons/(b ° 0.02 tons/yr

Lumber Production: 56.00 MRBF/yr (Basec on Maximum Production Rate)
Tons of logs processed: 56.00 MRBF/yr * 4164 tors MRBF + 226,856 tons/yr (ACB Estimate)

15P Enissions:

Emission Factor: 0.02 ibs/ton (3-07-012-01, MFSSCC page 143) Calculations: 224,856 tone/yr * 0.02 ibs/ton * 0.0005 tons/ib * 2.85 tons/yr

Emission Factor: 0.011 Lbs/ton (3-07-128-01, AFSICE page 143) Calculations: 224,656 * trns/yr * 0.011 (25/ton * 0.0005 tons/to * 1.26 tons/yr

Lumber Production: \$4.00 MHBF/yr (Based on Maximum Production Lete)
lone of loss processed: \$4.00 MHBF/yr + 4164 tene/2045 = 224,856 tons/yr (AGB Extimate)

75P Emissions:

Emission Factor: 0.64 lbs/ton (Saked on browledge of the process)
Calculations: 224,856 tons/yr = 0.04 lbs/ton = 0.0005 tons/ib = tons/yr

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seurs of operation: 8780 hrs

ts? Exissions:

Emission Factor: 2.00 (bs/hr (3-07-008-08, AFSSCC page 144) Calculations: 8760 * hrs * 2.00 (bs/hr * 8.000) tons/ip * 8.76 tons/yr

PH-10 Existions:

Emission Factor: 0.80 tbs/hr (3-07-008-08, AFSSCC page 144) Calculations: 8760 * hrs * 0.80 tbs/hr * 0.000 tons/tb = 3.50 tons/yr

Enip 1in Nati Loadout

Lumber Fraduction: 54.60 HMBF/yr (Eased on Maximum Production Eate)
Chip Production: 411 tons/HMBF (AGE Estimate)

tsa Enissions:

Emission Factor: 0.18 lbs/ton (Estimate based on knowledge of process 6 size of Fatorisi) Calculations: $54.00 \pm 0.08 f/yr \pm 611 \pm 0.08/708F \pm 0.18 \pm 0.0005 \pm 0.0005 \pm 0.08/10 \pm 2.00 \pm 0.08/10$

PH-10 Enissions:

Emission Feator: 0.064 hts/for (Estimate based on knowledge of process & mile of haterial) Calculations: 54.00 * MP3F/yr * 411 tons/MP8F * 0.06 (bs/for * 0.0005 cons/10 * 0.71 tirs/yr

#[aren Cyclore

Hours of operation. 8760 hrs

TSP Emissions:

PH-10 Extraional

Emission Factor: 0.80 tbs/hr (3-07-008-08, A/SSCC page 144) Calculations: 8760 * hrs * 0.80 tbs/hr * 0.0005 tens/ib = 3.50 tens/yr Cyclone

Finger Julinian Eyelone

Neurs of operation: 8760 hrs

15P Existina:

Satisation Factor: 2.00 bbs/hr = 0.005-08, Affice page 144) Catculations: 8760 * hrs * 2.00 bbs/hr * 0.005 tons/tb * 8.76 tons/yr

PM-10 Exissions:

Emission factor: 0.80 lbs/hr (3-07-008-08, ATSET page 164) Calculations: 8766 * hrz * 0.80 lbs/hr * 8.8005 tons/lb * 3.50 tons/yr

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Shaving &in Eyelone from Planer

Rours of operation: 8760 hrs

752 Eniesions:

Emission Factor: 2.00 lbs/hr (3-07-002-58, AF8SCC page 144) Cafculations: 8760 * hrs * 2.00 lbs/hr * 0.0005 tons/lb * 8.76 tons/yr

Shaving Bin Dyclone from Jointer

Acurs of operation: 8760 hrs

fs? Emissions:

Emission Factor: 2.00 tbs/hr (3-07-008-08, AFSSCC page 144) Calculations: B760 * hrs * 2.00 tbs/hr * 0.0005 tons/tb * 8.76 tcrs/yr

PR-10 Emissions:

Emission Factor: 0.80 lbs/hr (3-07-008-08, AFSSCC page 164) Calculations: 8760 * hra * 0.80 lbs/hr * 0.0005 tons/lb * 3,50 tens/yr

Shevins Sin Truck Leadout

Lumber Production: \$4.00 HHEF/yr

(Sased on Hetimum Production Este)

Planer Shavings Production: finger defineer Shavings Preduction: local Shavings Production:

421 tons/MASE 395 tons/MASE

(406 Estimate)

Entasion Factor: 2.00 ibs/ton (3-07-030-02, AFSSCC page 144)
Celculations: 54.00 * MMBF/yr * 1018 tons/MMBF * 2.00 lbs/ton * 0.0005 tons/tb * 54.86 tons/yr

PH-10 Entactors:

Emission Factor: 1.20 lbs/ton (5-07-030-02, AFSECO page 144) Calculations: 54.00 * MME/yr * 1016 tons/MMEF * 1.20 lbs/ton * 0.0005 tons/ib * 32.92 tons/yr

Hog Fuel Bin Truck Leadout

Lumber Production: 54,00 MMBF/yr

(Based on Haximum Production Rate)

Sawdust Production: Bark Production: Yotel Roy Puel Production:

365 tons/mm8/ 76 tons/mm8/ 471 tons/mm8/

(AOS Extimate)

Emission factor: 1,00 bbs/ton (Estimate based on knowledge of process & size of baterius)
Calculations: 56.00 * MMBF/yr * 471 tohs/MMBF * 1,00 bbs/ton * 0.0005 tons/it = 12,72 tohs/ye

PK-16 Emiasions:

Emission factor: 0.16 lbs/tch (Estimate based on knowledge of process & size of material)
Emissions: 54.00 * MMSF/yr * 471 tens/MMSF * 0.36 lbs/ton * 0.0005 tens/(b * 4.58 tens/yr

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1.0 6.2 % 6.3 mph 27.0 Yons 18 wheels 1.0000

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                                                                                                                     Flathead County
             STATE OF MONTANA
            AIR QUALITY
                                                                                                                          Air Quality Control
             IMPLANTION PLAN
                                                                                                                          Program
             ISP EDISSIONS:
                         1SP Emission factor: 6.52 Lbs//Mf
                             E(TSP)= (303 YM1/Yr)(6.52 Lbs/MT)(0.5)
E(TSP)= 988 Lbs/Yr or 0,45 Tcns/Yr or 2.71 Lbs/day
                   PRIO Emission Factor is determined by the folicular equation:
                          E= 5.9%k*(s/12)*($/30)*(W/3)**G.7*(W/4)***0.5*PR Where:
                                 FREID Emission Factor in ibe/Whicle Mile Traveled (VMI)

ke Particle sizing constant for FMIO ... 0.36

se Silt Content in percent ... 6.2 X

Se Average Speed of vehicles in too. ... 6.5 sp.

Me Average weight of vehicles in too. ... 27.0 Tons

we Average number of wheels on vehicles ... 18 wheels

PRE Assumes no precipitation ... 1,0000
            * PK10 Emissions:
                         PHIO Emission Factor: 2.35 Lbs/VMT
                            E(PH10)= (303 WH/Yr)(2.35 Lbs/WH1)(0.2)
E(PH10)= 356 Lbs/Tr or 0.12 Tens/Tr or 0.97 Lbs/day
```

TSP Emission Factor is determined by the following equation:

Operating Hours: 8752 Eturs/Tr Vehicle Hiles Traveled: 10000 VRT/Tr Control Efficiency is 50% for watering.

```
E= 5.9%+(e/12)*(5/30)*(U/3)**0.7*(U/L)**0.5*PR
Where:

E= TSP Emission Factor in Lbs/Vehicle Mile Traveled (VMT)

h= Particle sizing constant for TSP

s= Silt Content in percent

Sz Average Space of vehicles in rph

W Average velght of twhicles in rph

sys Average velght of twhicles in ch

PRA Precipitation Ratio besed on the following:

130 Days with mare than .01* of Precipitation

PRA (365 days - 130 days)/365 Days = 0.6/38
```

TSP Emfeston Factor: 1.44 Lbs/MI

E(TSP)= (10000 VHT/Tr)(1.44 Lbs/W1)(0.5) E(TSP)= 7215 Lbs/Yr or 3.61 Tons/Tr

PA10 Emission Fector is determined by the following equation:

E= 5.9°k*(a/12)°(5/30)°(W/3)°*0.7°(W/4)°*0.5°PR

Mhere:
E= PMIO Emission Fector in Lbs/White Mile Traveled (VMT)
k= Particle sizing comatent for PMIO 0.36
s= Silt Content in percent 6.2 X
S= Average peed of whitele in oph 5.0 oph
W= Average weight of vehicles in loop 25.0 Tons
w= Average ramber of wheels on vehicles
PR= Precipitation Asia based on the following:
130 Days with more than .01° of Precipitation
PR= (365 days - 133 days)/365 Days = 0.4-38

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(Based on Hazimum Production Rate)

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```
PHID Emissions:
                    PVIG Emission Factors 0.52 Lbs/VMT
                        E(PNSO)= (10000 WHT/Tr)(0.52 Lbs/VHT)(0.51
E(PNSO)= 2597 Lbs/Yr | Ar | 1.30 Tems/Yr
Log Deck fugitives (Daily)
                    Operating Hours: 8760 Hours/Tr
Vehicle hites Inaveled: 10000 VMT/Tr
Control Efficiency is 50% for wetering.
                                                                                                 (Based on Hasimum Production Rate)
               15> Emission factor is determined by the following equation:
                     Ex 5.9%*(s/12)*(5/30)*(u/3)**0.7*(u/4)**0.5*FR

where:
Ex TSP Emission Factor in Lbs/Vehicle Mile Traveled (VMT)
he Particle sizing consums for TSP

SX Elit Content in percent
SX Average Speed of vehicles in sph
Us Average weight of vehicles in Tons
Us Average weight of vehicles in Tons
Us Average mustor of wheels on vehicles
FR Assumes to precipitation

1,0000
       TSP Emissions:
                                                                   2.24 Lbs/WT
                       tsp Exission factor
                            E(15#)+ (10000 ent/FF)(2-26 ths/P4T)(0,3)
E(15#)+ 11260 ths/FF or 5.60 Toro/FF or 30.70 ths/day
               PMID Emission Factor is determined by the following equation:
                      PHIO Emissions:
                                                                      0.81 Lbs/#1
                      Pate Enissian Factor
```

E(PH10)= {10000 WHT/Yr)(0.81 Lbs/WHT)(0.5) E(PH10)= 4034 lbs/Yr ar Z.02 Tons/Yr ar El.05 lbs/day #

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V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Amblent Air Quality Standards (NAAOS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA required the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission in issue a segment in MT. Mokko were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the MT Mokko facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) indicated that MT Mokko, contributed significantly to the PM-10 concentrations in the Kalispell nonattainment area.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAOS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for the MT Mokko facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAOS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressant) for hauf road dust, the MT Mokko facility should be able to operate at maximum design rates and remain in compliance with the stipulated emission limitations.

Final Scientation: \$/17/83

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Kanspell and Evergreen Nonattainment Boundaries

The area is bounded by kines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5345000mN, south to 704000mE, 5341000mN, west to 703000mE, 5340000mN, south to 703000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5339000mN, east to 704000mE, 5339000mN, south to 703000mE, 5338000mN, east to 704000mE, 5338000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, mach to 702000mE, 5335000mN, west to 702000mE, 5336000mN, nach to 700000mE, 5340000mN, west to 700000mE, 5340000mN, nach to 700000mE, 5347000mN, nach to 700000mE, 5347000mN,

VI Environmental Assessment

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

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Flathead County Air Quality Control

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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogsyve'l Euilding, Helena, Montana 59620 (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Montana Moxko, Air Quality Stipulation for Kalispell SIP.

Description of Project: Montana Mokko operates an existing lumber mill located at 955 Whitefish Stage Road, in Kalispell, Montana. This facility manufacturers dimension lumber for use in the construction industry. The wood wastes that this facility generates is sold as a byproduct which is used in the manufacture of other wood products.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promutgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispall and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Flan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAOS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives exist.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A list of enforceable conditions are contained in the signed air quality stipulation.

Recommendation: An EIS is not required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control techniques at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAQS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None.

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau.

EA prepared by: Michael Glavin Date: July 22, 1993

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Potential Impact on Physical Environment

		Majo/	Mederate	Namer	None	Uninown	Commenta Attented
1	Terrestrial and Aquasic Life and Mabitata]		x		
Ä	Water Quality, Quantity and Distribution				×		
3	Geology and Soil Quality, Stability and Monture				x		
4	Vegetation Cover, Quantity and Quality		i		×		
5	Austhatics				x		
8	Air Que'ity			x			
,	Unique Endangered, Fragile er Limited Emeronmentel Resource					x	
	Demands on Environmental Resource of Water, Air and Energy				x		
ę	Historical and Archaeological Sites					x	
10	Cumulative and Secondary Impacts		T	×			

Potential Impact on Human Environment

		Major	Maderate	Minor	None	Unknown	Cammente Attached
١	Social Structures and Mores				x		
2	Cultural Uniqueness and Diversity				x		
3	Local and State Tax Base and Tax Revenue			:	x		
4	Agricultural or Industrial Production				×	1	
5	Human Hestth			x ·	,		
6	Access to and Quality of Kecreational and Wilderness Activities				×		
7	Quantity and Distribution of Employment				×		
	Distribution of Population				×		
	Demends for Government Services		ļ	×			
10	Industrial and Commercial Activity				>		
11	Locally Adopted Environmental Plans and Gesis			x			
12	Cumulative and Secondary Impacts	I		X.			

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BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of Pack and Company, Inc., Kalispell, Montana, with 40 CFR 50.6, National Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana Ambient Air Quality Standard for

STIPULATION

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PM-10

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The Department of Health and Environmental Sciences ("Department"), and Pack and Company, Inc. ("Pack"), hereby stipulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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. BACKGROUND:

1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

2. Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.

and the state of

- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue crders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").
- 17 5. On August 7, 1987, the Kalispell area was designat-18 ed as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant 19 to the Federal Clean Air Act all Group I areas, including 20 Kalispell, are designated by operation of law to be in non-21 attainment for the particulate matter NAAQS. 22 7407(d)(4)(B), as amended. Further, the Act designated the 23 Kalispell area as a "moderate" PM-10 honattainment area. 42 25 U.S.C. 7513(a), as amended. For areas designated as "moder-26 ate", the state was required to submit to EPA an implementa-

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION P. ..

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document. Pack is located outside of the Kalispell non-attainment area 10 boundary. 11

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAOS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition projects, and barren ground.

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On April 29, 1992, EPA notified Governor Stephens 1 that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demon-10 stration of attainment.

9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicated that a 15 source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.

10. The results of the earlier CMB modeling study were 20 in part dependent upon the level of actual emissions from the 21 various sources in the Kalispell area during the study period. However, and based upon a review of the allowable emissions for those same sources, the department is concerned 24 that the allowable emissions do not correlate well to the 25 actual emissions occurring during the period of CMB analysis.

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For example, in the case of Pack, some emission points are not subject to emissions limitations, and other emission points have emissions limitations that are significantly higher that the actual emissions during the CMB study.

11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the results of this modeling, the PM-10 emissions from Pack were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. As used in the preceding sentence, the term "significant" means that the PM-10 emissions from Pack, when modeled, were greater than 5 micrograms per cubic meter impact for at least one receptor 17 point within the Kalispell nonattainment area, consistent with the federal Clean Air Act, implementing regulations 18 found at 40 CFR Part 51, and pertinent EPA guidance. Both 19 parties agree that based upon these modeling results, and 20 21 notwithstanding the location of Pack outside of the Kalispell nonattainment area, revised emission limitations for Pack are 22 23 necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Pack and other sources in the Kalispell area to determine the level of emissions 26

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which achieves the particulate matter NAAQS. Based upon these modeling results, the department and Pack agree to the revised emission limitations for Pack, as set forth in Exhibit 18.

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B. BINDING EFFECT

amission limitations placed on Pack must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Pack. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Pack and Company, Inc.") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves the plan, or if future violations of the particulate matter NAAQS or PK-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Department is the state agency that is primarily responsible for the development and implementation of the state Implementation Plan under the Federal Clean Air Act.

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Section 75-2-112(2)(c), MCA. Under Sections 75-2-101, et seq., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state. Such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kalispell non-attainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to Pack.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to that Act.

17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in an air quality permit issued to Pack, supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order imposing the

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HEALTH AND ENVIRONMENTAL
SCIENCES

BY Man Die
Robert J. Robinson
Director PACK AND COMPANY, INC. 6 10 11 12 13 9/17/93 DATE _ 4/15/43 DATE 14 15 16 17 18 19 20 21 22 23

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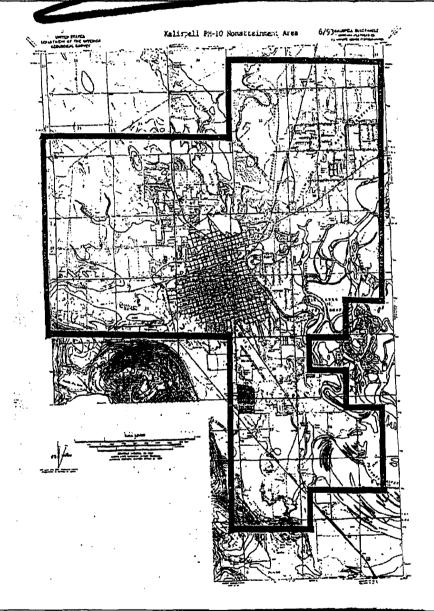
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Flathead County Air Quality Control Program

EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

Pack and Company, Inc. 2355 Highway 93 North Kalispell, MT 59801

The above-named company is hereinafter referred to as "Pack"

Section I: Affected Facilities

- A. Equipment: A stationary 1967 Stansteel #RM 5000 asphalt plant (200 TPH) serial #854 with a Stansteel Wet Scrubber Model 260A, installed in 1977.
- Plant Location: 2355 Highway 93 North ISWX, NWX, Sec 31, T29N, R21W, Flathead County).

Section II: Umitations and Conditions

- A. Emission Umitations
 - Pack shall operate and maintein the wat scrubber and all other emission control equipment and utilize all techniques specified in this stipulation to provide the maximum air pollution control for which they were designed.
 - All visible emissions from the asphalt plant stack are limited to 20% opecity¹. (ARM 15.8.1404)
 - Pack shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, or the general plant area any visible fugitive emissions that exhibit opecity' of 5% or greater. (RACT)
 - 4. Pack shall treat all unpaved portions of the haul roads, access roads, and the general plant area with water, chemical dust suppressant and/or acceptable oil or asphalt products as necessary to maintain compliance with the 5% opacity limitation.(RACT). The use by Pack Concrete of any dust suppressants, including any oil or asphalt products, shall be in compliance with all applicable local, state or federal environmental requirements.
 - Pack shall not cause or authorize to be discharged into the atmosphere from material transfer and storage areas any visible emissions that exhibit opacity* of 20% or greater. (ARM 16.8.1401)
 - 6. Asphalt plant TSP emissions are limited to 0.10 gr/dscf and 21,00 lbs/hr.

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Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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- Asphalt plant PM-10 emissions are limited to 0.10 gr/dscf and 21.00 lbs/hr.
- A device to measure the pressure drop (magnehelic gauge, manometer, etc.) on the control device (wet scrubber, baghouse, etc.) shall be installed and maintained. Pressure drop shall be measured in inches of water. Temperature indicators at the control device inlet and outlet must be installed and maintained.
- 9. The original asphalt production rate is limited to 200 tons/hour. It is recognized that the Pack asphalt plant is governed by an existing Air Quality Permit, in addition to the terms of this Stipulation (Air Quality Permit #1125). Notwithstanding the limitation contained in this Stipulation, Pack shall have the opportunity to seek an increase in the allowed production rate by requesting that the Department consider an alteration to the existing Air Quality Permit. Similarly, Pack is not foreclosed by this Stipulation from seeking an Air Quality Permit from the Department for the utilization of additional equipment on-site. Pack recognizes that before the Department may approve any alteration to the existing Air Quality Permit, or issue an additional Air Quality Permit for the use of additional equipment on-site, the emissions from the permitted facility or facilities must be reviewed for their impacts on PM-10 ambient air quality, and the Department may withhold epproval if such impacts are found to be unacceptable.
- 10. Once a stack test is performed, the asphalt production rate is limited to the average production rate during the last source test demonstrating compliance. As noted immediately above in Paragraph No. 9, and notwithstanding this limitation, Pack shall have the opportunity to seek to increase this production rate or otherwise add to its production capacity, as may be consistent with the obligation end duty of the Department to ensure that there are not unacceptable impects on PM-10 ambient air quality.
- 11. The asphelt plant operation is limited to 8760 hours/year.
- B. Emission Testing
 - A source test must be conducted and compliance demonstrated within 320 days from the date of the signed stipulation,
 - An EPA method 1-5 source test must be performed on the asphalt plant every four years to demonstrate compliance with Section II.A.1, 5 and 6.
 - The tests shall consist of three runs, each of at least 60 minutes duration. The test shall be conducted in compliance with the requirements of 40 CFR Part 60, Subpart A, General Provisions; EPA Reference Methods 1-5, 40 CFR Part 60, Appendix A, and 40 CFR Part 60 Subpart I.

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- 4. An EPA Method 9 opacity test must also be performed in conjunction with the particulate tests to demonstrate compliance with condition Section II.A.1. This test shall consist of thirty 6-minute average observations with ten of these observations being conducted during each particulate test run.
- The tests identified in subsections 1-4 above must be conducted in compliance with the pre-test notification and reporting requirements of the AOB's Compliance Source Test Protocol.
- Production field data sheets must be supplied as part of the test report.
 Since asphalt production will be limited to the average production rate during the test, it is suggested the test be performed at the highest production rate practical.
- 7. The AQB must be notified of the test five working days before the test is scheduled to be performed. The AQB must also be notified the day before the test is performed to confirm the test. The responsibility for notification is that of the owner/operator.
- Pressure drop on the control device and temperatures will be recorded during the test and reported as part of the test results.

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Reporting Requirements

- The operator must maintain on-site records showing daily production rates for the current calendar year. These records shall be available for inspection by the department end must be submitted to the department
- Pack shall retain daily production numbers for a minimum of five (5) years.
- 3. Pack shall provide an annual report identifying any days in which the hours of operation, or the process rates in Section II.A. are exceeded. The report shall be submitted by March 1 of each year.
- Annual production information shall be submitted in writing to the AQB by March 1 of the following calendar year. The information shall include:
 - Tons of asphalt produced.
 - ы Hours of operation.
 - c) Type and amount of fuel used for the plant.
 - d) Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:
 - Number of vehicles;
 - Vehicle type;
 - Vehicle weight, loaded
 - Vehicle weight, unloaded: lv) Number of tires on vehicle;
 - vi) vii)
 - Average trip length;
 Average number of trips annually;

 - Average vehicle speed; Area of activity; and (xl
 - x) Vehicle fuel usage (gasoline or diesei) annual total.
 - Fugitive dust control for haul roads and general plant area:
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if
- The department may require additional emissions testing on sources e^a amissions per ARM 15.8.704, Testing Requirements.
- Pack must maintain a copy of the air quality stipulation at the Kalispell ready mix

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site and make that copy evallable for inspection by department personnel upon request,

F. Pack shall comply with all other applicable state, federal, and local laws and regulations.

Section III: General Conditions

- A. Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, 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 stipulation.
- B. Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto.
- C. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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Analysis of Conditions Pack and Company, Inc.

I. Introduction

A. Equipment

A stationary 1967 Stansteel #RM 5000 asphalt plant (200 TPH) Serial #654 with a Stansteel Wet Scrubber - Model 260A, installed in 1977.

B. Process Description

This plant produces asphalt for use in construction, repair, and maintenance of roads and highways.

C. Facility Location

Pack operates a stationary asphalt plant and a ready mix concrete batch plant in a gravel pit at 2355 Hwy 93 North (SW%, NW%, Sec 31, T29N, R21W, Flathead County) in the Kalispell nonattainment area. The 1967 Stansteel #RM 5000 asphalt plant is permanently located at this pit.

II. Applicable Rules and Regulations

A. ARM 16.8, Subchapter 8, Ambient Air Quality, including but not limited to:

ARM 15.8.821 Ambient Air Quality Standard for PM-10. This section states that no person may cause or contribute to concentrations of PM-10 in the ambient air which exceed the set standards. (Sea Section V)

- B. ARM 16.8, Subchapter 9, Prevention of Significant Detenoration This facility is not a PSD source since this facility is not a listed source and the potential to emit is below 250 tons per year of any pollutant.
- C. 16.8 Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airbonne. This section requires an opacity limitation of 20% for all fugitive emission sources.
 - ARM 18.8.1403 Particulate Matter, Industrial Process. This section states that no person shall cause, allow, or permit to be discharged into the outdoor atmosphere from any operation, process, or activity, particulate matter in excess of the amount determined by using the following equation:

Allowable Emissions = 55 (200 tons/nr)-11 - 40 = 58.51 lbs/hr.

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The enforceable total particulate matter emission limit is 21.00 lbs/hr, therefore the source is in compliance.

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- ARM 16.8,1404 Visible Air Contaminants. This section requires an opacity limitation of 20% from all stacks constructed or altered since November 23, 1968.
- 16.6.1423 Standards of Performance for New Stationary Sources (NSPS). This plant was constructed in 1967 so NSPS (40 CFR Part 60, general provisions, and Subpart I Hot Mix Asphart Facilities) does not apply.

III. RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implementation Plans (SiP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kalispell area has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Asphalt Flant Stack Emissions

Pack's asphalt plant was constructed in 1967, and therefore, NSPS does not apply. The department has determined that BACT for pre-NSPS asphalt plants is an emission limitation of 0.10 gr/dscf and 20% opacity. The plant was tested in 1988 and the results showed emissions at 0.082 gr/dscf. Since BACT is more stringent than RACT and this asphalt plant meets BACT, the RACT requirement is met.

B. Material Transfer Fugitive Emissions

RACT for material transfer points for sources of this type has been determined by the department to be the use of water of chemical stabilization so as to maintain compliance with a 20% opacity limitation.

C. Fugitive Road Dust Emissions

RACT for fugitive road dust amissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

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IV. Emission Inventory

1967 Stansteel SEM 5000 Portable Asphalt Plant

Arruel Existion Rates (Potential) *

TSP PN-10 NOK VOC CO BOX 91.98 91.98 31.54 24.53 35.25 43.95 175.20 26.28 87.60 35.04 0.15 0.04 Asphalt Plant Drum Dryer Elevator, Screens, Bins, and Mixer Edid Atgregate Handling Heul Roeds 87.00 32.05 0.15 0,66 354.95 153.36 31.54 24.53 33.29 63.95

* Besed on operating \$760 hours/year.

we desert on operating 24 hours/day.

Asphele Plant Drum Dryer - with Vet Scrubber

Raximum Process Bats: 200 tons/br Process Aliftow Bate: 24500 dscf/min (paximum Process Airftow Bate) Bours of operation: 8760 br/yr 24 br/day

Estanton Factor: 0.10 gr/docf (EACT Determination)
Calculations: 0.10 gr/docf * 24500 decf/sin * 1/7000 lbs/gr * 60 ein/hr * 21.00 lbs/hr 21.00 lbs/hr * 6760 śr/yr * 0.0005 zors/ib * 91.98 tors/yr 21.00 lbs/hr * 24.0 kr/dsy * 306.00 lbs/dsy

Emission Fector: 0.10 gr/dscf (dasume 100% of T39 is 98-10).
Celcutations: 0.10 gr/dscf = 24500 dscf/min = 1/7600 lbm/gr = 4d sin/hr = 21.00 lbm/hr = 245.00 hbm/gr = 640 sin/hr = 20.00 lbm/hr = 26.00 hbm/gr = 26.00 hbm/gr = 26.00 hbm/dsy = 504.00 lbm/dsy

Estaston Factor: 0.036 lbe/ton (AFSSC 3-05-002-01, page 116) Catculations: 0.036 lbe/ton 200 towarks = 7.20 lbe/hr 7.20 lbe/hr = 2760 lbe/re 0.000 towarks = 31.54 tows/yr P.20 lbe/hr = 24.0 hr/dey = 172.80 lbe/dey

Some of the

YOC Estadore:

Emission Factor: 0.028 Sbs/ton (AFSEC 3-05-002-01, page 114) Calculations: 0.028 Ubs/ton* 200 tempér = 5.60 Ubs/ar 5.60 Ubs/er* 2760 Hr/d* 0.0005 tons/15 = 24.53 tom/yr 5.60 Ubs/ar* 24.0 hr/day = 134.60 Ubs/day

CC Enissions:

0.038 lbe/ton (AFSEC 3-05-002-01, page 116) 0.058 lbe/ton * 200 tome/nr = 7.60 lbe/hr 7.66 lbe/re * 8760 hr/yr * 0.0003 tome/lb = 33.29 tome/yr 7.66 lbe/se * 24.0 kr/esy = 182.40 lbe/dey Emission factor: Calculations:

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SOx Emissions:

Emigazion Factor: 0.073 |bm/ton (AFSLC 3-03-002-01, page 116) Calculations: 0.077 |bm/ton * 200 |tons/hr = 14.60 |bm/hr = 14.60 |bm/hr = 874.60 |tons/hr = 874.60 |tons/hr = 874.60 |tons/hr = 874.60 |tons/hr = 874.00 |tons/hr = 8750.40 |tons/hr = 874.00 |tons/hr = 8750.40 |tons/hr =

Elevator, Screens, Sins, and Hixer

Process Natu: 200 tons/hr (Maximum Besign) Nours of operation: \$760 br/yr 24 br/day

TSP Emissions:

Emission Factor: 0.2 lbe/ton (AFSSC 3-05-002-02, page 116) Establishes: 0.20 lbe/ton * 200 tom/hr = 40.00 lbe/hr 40.00 lbe/hr * 8769 hr/yr * 0.0005 toms/b = 175.20 toms/yr 40.00 lbe/hr * 24.0 kr/day = 740.00 lbe/day

PR-10 Emissions:

Eaisxion Fector: 0.03 lbs/ton (AFSEC 3-05-002-02, page 916)
Calculations: 0.03 lbs/ton * 200 tons/hr * 6.00 lbs/hr * 6.00 lbs/hr * 6.00 lbs/hr * 6.00 lbs/hr * 26.28 tons/yr 6.00 lbs/hr * 24.0 kr/day = 144,00 lbs/day

Process tatu: 200 ters/hr (Maximum Besign) Hours of operation: 8760 hr/yr 24 hr/day

73P Emissions:

Emission Fector: 0.10 (bm/ton (AFSEC 3-05-002-04, page 114) - Emission Fector: 0.10 (bm/ton = 200 tom/fr = 20.00 (bm/fr - 20.00 (bm/fr = \$750 hr/fs = 0.00 tom/fr = 87.60 tom/yr 20.00 (bm/fr = \$26.0 hr/dsy = 880.00 (bm/dsy

PH-10 Enissions:

Enlesion Factor: 0,04 lbs/ton (AFSSC 3-05-002-04, page 116) Calculations: 0.04 lbs/ton * 200 tons/hr = 8,00 lbs/hr = 8.00 lbs/hr = 8.00 lbs/hr = 8.00 lbs/hr = 8.00 lbs/hr = 35.04 tons/yr = 102.05 lbs/cdsy

Operating Hours: \$750 Nours/Tr Vehicle Hiles Traveled: 345 VMT/Yr (Estimated based on maximum production rate)

Control Efficiency is 50% for suturing.

TSP Emission factor is determined by the following equation:

E= 5.9mtr(a/12>mcs/30)=(0/3)=m0.7mc(a/5)=m0.5mp.

E= 15P Emission Factor in Lbm/vehicle Mile Travaled (VMT)
k= Particle sizing constant for 15P
s= 8ilt Content in percent
s= Average Speed of vehicles in sph
th Average beight of vehicles in fem
s= Average beight of vehicles in fem
s= Average meight of vehicles in fem
s= Average meight
s= Aver

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TEP Emissions:
                    TSP Emission Factor: 1.78 Lbs/WIT
                         E(TSP)= (346 VHT/Yr)(1.78 Lbs/VHT)(0.5)
E(TSP)= 308 Lbs/Yr or 0.15 Tons/Yr
           PM10 Emission Factor is determined by the following equation:
                    E= 5.9*k"(s/12)*($/30)*($/3)**0.7*(\u/4)**0.5*PR
                   Le 3.9% (E/IC/C4/3u) (W/IC/C4/3u) (W/IC/C4/3u)
Where:

E= PMIO Emission Factor in bey/whiche Mile Travelet (WIT)

be Particle sizing constant for PMIO 0.36

so Sitt Concent in percent 8.7 X

so Average speed of whiches in mph

be Average number of whiches in lons

so Average number of wheels on weblicle

All PRe-Percipitation Eatic based on the following:

130 Days with more than .01° of Precipitation

PRe (365 days - 130 days)/365 Days = 0.6438
  PH10 Emissions:
                    PM10 Emission factor: 0.64 Lbs/VMT .
                         E(PR10)* (346 WHT/Yr)(0.64 Lbs/VHT)(0.5)
E(PR10)* 111 Lbs/Yr or 0.06 Tons/Yr
   Haul Roads (Daily)
                    Operating Hours: 8760 Hours/Yr
Yahicia Hitse Traveled: 346 VHI/Tr (Estimated based on maximum production rate)
                     Control Efficiency is 50% for wetering.
              TSP Emission Fector is determined by the following equation:
                       E= 5.9*k*(s/12)*(s/30)*(U/3)**0.7*(u/4)**0.5*PR
Where:
                                   FR:

EN TSP Emission Factor in Lbs/Vehicle Mile Traveled (VMT)

As Particle sizing constant for TSP

as Sit Centent in persent

SE Average Speed of vehicles in sph
by Average seight of vehicles in lone
ay Average rauber of theels on vehicle

PR- Assumes no precipitation

To Description

1.0000
     TER Entraigne:
                        TSP Emission Factor: 2.77 Lbs/Wil
                              E(TSP)= (346 VMT/Yr)(2.77 Lbs/VMT)(0.5)
E(TSP)= 478 lbs/Yr
or 0.24 Tors/Yr
1.31 lbs/dsy
               PHIO Emission Factor is determined by the following equation:
                         E= 5,9*k*(a/12)*(8/30)*(U/3)**0.7*(u/4)**0.5*PR
                                      Fig. 2: PNIG Emission Factor in Lbs/Mhicle Rile Traveled (MT)

L= Particle sizing constant for PNIO 0.36

a= SILC Content in parcent 5: Average Speed of whicles in sph bin Average swight of whicles in Tons or Average number of sheets on whicle PR- Assumes no precipitation 1.0000
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PHIC Enteriors:

PHIG Emission Factor: 1,00 Lbs/MI

E(PMIG) = (346 VMT/Yr)(1.00 Lbs/YMT)(0.3) E(PMIG) = 172 Lbs/Yr or 0.09 Tong/Yr or 0.47 Lbs/day

V. Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual arez and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA is now requiring the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission limitations applicable to the Pack facility were in some cases nonexistent (no permit required) or several timeshigher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Pack facility at its potential to emit (emissions associated with maximum design capacity or as limited by ARM 16.8.1403) indicated that some emission points within the facility contributed significantly to the PM-10 concentrations in the Kalispell nonattainment area. As used in the preceding sentence, the term "significantly" means that the PM-10 emissions from Pack Concrete, when modeled, were greater than 5 micrograms per cubic meter impact for at least one receptor point within the Kalispell nonattainment area, consistent with the faderal Clean Air Act, implementing regulations found at 40 CFR Part 51, and pertinent EPA guidance.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 . NAAQS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for the Pack facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAQS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and application of reasonable control techniques (watering or application of dust suppressant) for haul road dust the department has determined that the Pack facility can operate at maximum design rates

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and remain in compliance with the stipulated emission limitations.

Kalispell and Evergreen Nonattainment Boundaries

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5339000mN, east to 703000mE, 5339000mN, south to 703000mE, 5338000mN, east to 704000mE, 5336000mN, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, most to 702000mE, 5336000mN, south to 702000mE, 5335000mN, west to 702000mE, 5335000mN, north to 700000mE, 5340000mN, west to 695000mE, 5340000mN, north to 695000mE, 5345000mN, east to 700000mE, 5347000mN, north to 700000mE, 53470000mN,

VI. Environmental Assessment

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

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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Air Quality Bureau
Cogswell Building, Halana, Montana 59620
(406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Fack and Company, Inc., Air Quality Stipulation for Kalispell SIP.

Dascription of Project: This stipulation is for the operation of a stationary 1967 Stansteel #RM 5000 asphalt plant (200 TPH) Serial #654 with a Stansteel Wet Scrubber - Model 260A. This plant produces asphalt for use in construction, repair, and maintenance of roads and highways.

Benefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (FM-1C). Due to exceedances of the national standards for PM-10, the city of Kalispall and the narrby Evargreen area have been designated by EPA as nonatteinment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kelispell FN-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever elternatives are reasonably available and prudent to consider: No reasonable alternatives available.

A listing and appropriate evaluation of mitigation, atipulations and other controls enforceable by the agency or another government agency: A list of enforceable conditions and an analysis of conditions are contained in a signed stipulation.

Recommendation: No EIS is required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

if an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control techniques at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAQS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau.

EA prepared by: Michael Glavin Date: July 22, 1993

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oubject:

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Potential Impact on Physical Environment

		Major	Mederate	Atinor	Nonei	Unkeswn	Comments Attached
1	Terrestrial and Aquatic Ufe and Habitate				x		
2	Water Quality, Quantity and Distribution				x]	
3	Geology and Soil Quality, Stability and Moleture				×		
4	Vegetation Cover, Quantity and Quality				x		
5	Aesthetics				×		
6	Air Quality_			×			
7,	Unique Endangered, Fragile or Limited Environmental Resource					x	
₽.	Demands on Environmental Resource of Water, Air and Energy				x		,
,	Historical and Archaeological Sites					x	
10	Cumulative and Secondary Impacts			×			

Potential Impact on Human Environment

	·	Major	Moderate	Minor	Nane	Unknown	Comments Atteched
1	Social Structures and Mores				×		_
2	Cultural Uniqueness and Diversity			,	x	T	
3	Local and State Tex Base and Tex Revenue				x		
4	Agricultural or Industrial Production	[x		· ·
. 12	Human Health				x*	T	
٠	Access to and Quality of Recreational and Wildemess Activities				x		
7	Quentity and Distribution of Employment	<i>.</i>			x		:
	Distribution of Population			:	x		
•	Demands for Government Services				x		
10	Industrial and Commercial Activity				x		
11	Lessily Adopted Environmental Plans and Goats			×			
12	Cumulative and Secondary Impacts			Ţ.	×	T -	

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STATE OF MONTANA
AIR QUALITY CARROL
IMPLIMENTATION PLAN

Air Quality

Program

UNIUINAL

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of Pack Concrete, Inc., Kalispell, Hontana, with 40 CFR 50.6, National Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana Ambient Air Quality Standard for PM-10

STIPULATION

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The Department of Health and Environmental Sciences ("Department"), and Pack Concrete, Inc. ("Pack Concrete"), hereby stipulate and agree to all the following Paragraphs 1-18 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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A. BACKGROUND:

1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutent for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.

3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.

4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24hour average concentration). ARM 16.8.821 ("PM-10 MAAQS").

5. On August 7, 1987, the Ralispell area was designated as a Group I area by EPA. 52 Fed. Reg. 29383. Pursuant to the Federal Clean Air Act all Group I areas, including Kalispell, are designated by operation of law to be in nonattainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the Kalispell area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-26

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1 tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document. Pack Concrete is located outside of the Kalispell non-attainment area boundary.

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAQS.
- On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Malispell, Montana, demonstrating attainment of the particulate matter NAAQS. implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition projects, and barren ground.

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- B. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally approved if certain deficiencies were corrected. A deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter NAAQS demonstration of attainment.
- 9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicated that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.
- 10. The results of the earlier CMB modeling study were in part dependent upon the level of actual emissions from the various sources in the Kalispell area during the study period. Mowever, and based upon a review of the allowable emissions for those same sources, the department is concerned that the allowable emissions do not correlate well to the actual emissions occurring during the period of CMB analysis.

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For example, in the case of Pack Concrete, some emission points are not subject to emissions limitations, and other emission points have emissions limitations that are significantly higher that the actual emissions during the CMB study.

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11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the results of this modeling, the PM-10 emissions from Pack Concrete were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. As used in the preceding sentence, the term "significant" means that the PM-10 emissions from Pack Concrete, when modeled, were greater than 5 micrograms per cubic meter impact for at least one receptor point within the Kalispell nonattainment area, consistent with the federal Clean Air Act, implementing requlations found at 40 CFR Part 51, and pertipent EPA guidance. Both parties agree that based upon these modeling results, and notwithstanding the location of Pack Concrete outside of the Kalispell nonattainment area, revised emission limitations for Pack Concrete are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates

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for Pack Concrete and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, the department and Pack Concrete agree to the revised emission limitations for Pack Concrete, as set forth in Exhibit B.

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. BINDING EFFECT

12. The parties to this Stipulation agree that any such emission limitations placed on Pack Concrete must be enforceable by both the department and EPA. To this end, the parties have negotiated specific limitations and conditions that are to be applicable to Pack Concrete. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Pack Concrete, Inc.") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves the plan, or if future violations of the particulate matter NAAQS or PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Department is the state agency that is primarily responsible for the development and implementation of the

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State Implementation Plan under the Federal Clean Air Act. Section 75-2-112(2)(c), MCA. Under Sections 75-2-101, et seq., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state. Such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon finding the limitations and conditions contained in Exhibit 8 to this Stipulation to be necessary for the Kalispell non-attainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to Pack Concrete.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to that Act. *

17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in an air guality permit issued to Pack Concrete, supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this

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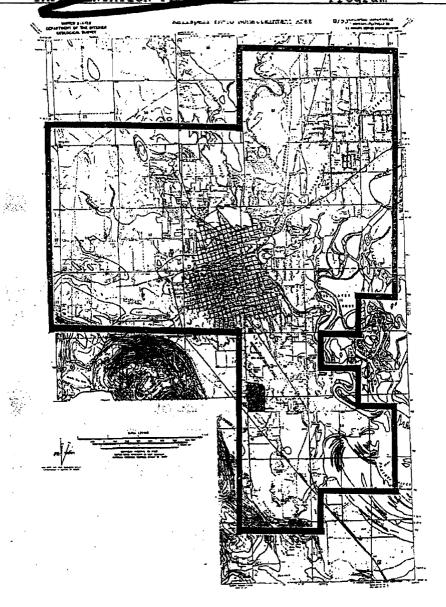
Ţ	
1	Stipulation for the Board to issue an Order imposing the
2	terms in this Stipulation and the limitations and conditions
3	contained in Exhibit B of this Stipulation, and adopting the
4	same as enforceable measures applicable to Pack Concrete.
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7	PACK CONCRETE, INC. MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
9	BY Chant 2 BY William Chit
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EXHIBIT B EMISSION LIMITATIONS AND CONDIT ONS

Subject:

Pack Concrete, Inc. 2356 Highway 93 North Kalispell, MT 59901

The above-named company is hereinafter referred to as "Pack Concrete"

SECTION I: Affected Facilities

- A. Plant Logation: Pack Concrete's batch concrete plant is located at 2355 Highway 93 North, Kaispell, Montana 59901 (SWX, NWX, Sec 31, T29N, R21W, Fiathead County).
- B. Affected Equipment
 - A Johnson Dry Batch stationary concrete batch plant (60 culyds/ht).
 Particulate emissions are to be controlled by three (3) fabric filter vents, one on each of the three cement allos and one fabric filter vent on the batch bin loading area;
 - 2. One stationary conveyor;
 - 3. Three (3) sand/aggregate storage bins;
 - 4. One gravel washing plant.

SECTION II: Limitations and Conditions

- A. Emission Control Requirements
 - Pack Concrete shall operate and maintain the fabric filter vents and all other emission control equipment and utilize all techniques specified in this stipulation to provide the maximum air pollution control for which they were designed.

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- 2. Pack Concrete shall treat all unpayed portions of the haul roads and the general plant area with water, chemical dust suppressant and/or acceptable oil or asphalt products as necessary to maintain compliance with the 5% opacity! limitation. (RACT) The use by Pack Concrete of any dust suppressants, including any oil or asphalt products, shall be in compliance with all applicable local, state or federal environmental requirements.
- Pack Concrete shall not operate the gravel washing plant in a dry screening mode.

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Opacity shall be determined according to 40 CFR Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources or CENTL.

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Emission Limitations

Pack Concrete shall not cause of authorize to be discharged into the atmosphere;

- Any vent emission which exhibits greater than 20% opacity? averaged over six (6) consecutive minutes. (RACT)
- 2. Any fugitive emission from any truck loading or unloading which exhibit greater than 10% opacity² averaged over six (6) consecutive minutes.
- 3. Any fugitive emissions from any transferring operations which exhibit greater than 10% opacity³ averaged over six (6) consecutive minutes. (RACT)
- Any fugitive emissions from the haul roads or plant area which exhibit greater than 5% opacity² averaged over six (6) consecutive minutes. (RACT)

C. **Emissions Monitoring**

- Pack Concrete shall inspect and keep record of repairs for the fabric filter vents on the cament silo every six (8) months of operation and the fabric filter vent on the batch bin loading area every one (1) month of operation so as to ensure that each such collector is operating at optimum efficiency as recommended by the manufacturer.
- The records compiled in accordance with this section shall be maintained. by Peck Concrete as a permanent business record for at least five (5) years and shall be available at the plant site for inspection by the duly authorized representative of the department.
- ۵. Operational Reporting Requirement:

Pack Concrete will provide the department with a production report by March 1 for the previous calendar year production. The report is to contain the following

- Total amount of concrete produced, in cubic yards;
- Annual total of sand, in tons;
- Annual total of cement, in tons;
- Annual total of aggregate, in tons; Hours of operation;
- Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:

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Opecity shall be determined according to 40 CFR Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources or CEMs.

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- Total number of vehicles:
- b. Vehicle type:
- Vehicle weight, toacac; Vehicle weight, unloaded: đ.
- Number of tires on vehicle;
- Average trip length;
- Average number of trips annually:
- Average vehicle speed; and
- Area of activity.
- Fugitive dust control for haul roads and general plant area: 7.
 - Hours of operation of water trucks.
 - Application schedule for chemical dust suppressant if applicable,
- The department may require additional emissions testing on sources in the plant per ARM 16.8.704 Testing Requirements.
- Pack Concrete must maintain a copy of the air quality stipulation at the Kalispell concrete batch plant site and make that copy available for inspection by department personnel upon request.
- Pack Concrete shall comply with all other applicable state, federal, and local G. laws and regulations

Section Iti: General Conditions

- Inspection The recipient shall allow the department's representatives access to the source at all reasonable times for the purpose of making inspections, 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 stipulation.
- Compliance with Statutes and Regulations Specific listing of requirements, limitations, and conditions contained herein does not relieve the applicant from compliance with all applicable statutes and administrative regulations including amendments thereto, nor waive the right of the department to require compliance with all applicable statutes and administrative regulations, including amendments thereto. amendments thereto.
- Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for penalties.

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Analysis of Conditions :
Pack Concrete

Introduction/Process Description

A. Affected Equipment

Pack Concrete operates a Johnson Dry Batch stationary concrete batch plant with three (3) fabric filter vents, one on each of the three cement silos and one fabric filter vent on the batch bin loading area. Pack Concrete's concrete batch plant is located at 2355 Highway 93 North, Kalispell, MT 59901 (SW.Y., NW.Y., Sec 31, 729N, R21W, Flathead County).

This concrete batching plant produces concrete for use in commercial and residential construction projects in the Kalispell area.

II. Applicable Rules and Regulations

- A. ARM 16.8, Subchapter 8, Ambient Air Quality, including but not limited to: ARM 16.8.821 Ambient Air Quality Standards for PM-10. This section states that no person may cause or contribute to concentrations of PM-10 in the ambient air which exceed the set standards.
- B. ARM 16.8, Subchapter 9, Prevention of Significant Deterioration This facility is not a PSD source since this facility is not a listed source and the potential to emit is below 250 tons per year of any pollutant.
- C. ARM 16.8, Subchapter 14, Emission Standards, including but not limited to:
 - ARM 16.8.1401 Particulate Matter, Airborne. This section requires reasonable precautions for fugitive emissions sources and Reasonably Available Control Technology (RACT) for existing fugitive sources located in a nonstrainment area. The department, in consultation with EPA, has determined that the use of chemical stabilization or paving on major haul roads will satisfy these requirements.
 - ARM 16.8.1403 Particulate Matter, Industrial Process. This section states that no person shall cause, allow, or permit to be discharged into the outdoor atmosphere from any operation, process, or activity, particulate matter in excess of the amount determined by using the following equation:

Allowable Emissions = 55 (123 tons/hr).11 - 40 = 53,38 lbs/hr.

The estimated total particulate emissions from the cament silos are 0.024 lbs/hr, therefore the source is in compliance with this rule.

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ARM 16.8.1404 Visible Air Contaminants. This section requires an
opacity limitation of 20% for all stacks or vents. The requirements of
this stipulation supersede this rule because they are more stringent or
they are equivalent.

III. RACM/RACT Determination

Under section 189(a)(1)(C) of the amended Clean Air Act of 1990, moderate area State Implementation Plans (SIP's) must contain "reasonably available control measures" (RACM) for the control of PM-10 emissions. RACM for stationary sources is the application of reasonably available control technology (RACT). Since the Kellspell erea has been designated as a nonattainment for PM-10 by EPA, RACT must be applied to those stationary sources which cause or contribute to the nonattainment area.

A RACT determination is required for:

A. Process Particulate Vent Emissions

Pack Concrete currently controls particulate vant emissions with a fabric filter having an astimated efficiency of 99.35%. High efficiency fabric filters are the highest efficiency perticulate control system for a source of this type. Since Pack Concrete is currently using this option, no other options need be considered. The department has determined that the fabric filter control system will constitute RACT in this case. The department has also determined that an opacity of 10% will constitute RACT for all vent emissions with fabric filter control.

B. Material Transfer Fugitive Emissions

RACT for material transfer points for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 10% opacity limitation.

C. Fugitive Road Dust Emissions

RACT for fugitive road dust emissions for sources of this type has been determined by the department to be the use of water or chemical stabilization so as to maintain compliance with a 5% opacity limitation.

IV. Emission Inventory

	Concrete Betch Plant							
Annual Enlation Sates (Potential)			7.	ns/fear	**			
Swirce	182	PH-10	104	WCC	co	30x		
Cument Rendling Entraions Batch Bin Loading of Coment/Sand/Aggregate Hiser Leading of Coment/Sand/Aggregate Transfer: Sand/Aggregate to Elevated Bins Real Reads	8.11 0.07 21.33 21.33 9.13	9.05 9.04 10,77 10,77 0.06				••••••		
1-tel	43.43	21.69	5.00	0.00	0.00	0.00		

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Daily Emission Rates (Patential) *

				Lbs/Day								
Source	159	PM-10	RCL	YOC	23	\$0x						
	*********	********	• • • • • • • • • • • • • • • • • • • •		******	• • • • • • •						
Cerent Handling Emissions	Q.58	0.29										
Estch Bin Loading of Cument/Kand/Aggregate	0.38	0,19										
Rixer Leading of Coment/Sund/Apgregate	118.68	59.04										
Transfer: Sand/Aggregate to Elevated Bins	115.08	39.04										
reut Roads (Daily)	1.31	0.47										
Total (lbs/day)	238.43	119.63	0.90	6.00	0.00	2.00						

* Based on a 24 hour day.

Capant Handling Emissions

Process Rate: 15.5 tons/hr (Maximum Gesign) Hours of operation: 8780 hr/yr

157 Esissions:

PH-10 Emissions:

faission Factor: 0.12 lbs/ton (AFSSCC 3-05-011-07, page 122)
Control Efficiency: 99.35% (Fabric Filter)
Calculations: 0.12 lbs/ton * 15.3 toms/hr = 1,86 lbs/hr
1.86 lbs/hr = 8760 hr/yr = 0.0005 toms/to = 8.15 toms/yr
8.15 toms/yr * (1.00 - 0.9935) = 0.05 toms/yr

Batch Bin Loading of Coment/Sand/Aggregate

Process Nate: 60 CU.yes/hr (Maximum Design): Neurs of operation: 8760 Nr/yr

ISP Emissions:

Emission Factor: 0.02 (bs/for CAFSCC 3-05-011-05, page 122)
Control Efficiency: 99.35% (Fabric Filter)
Calculations: 0.02 (bs/for * 60 cu.yds/for * 2.05 term/cu.yd * 2.46 (bs/for 2.46 fbr/r 2.46 fbr/r 2.47 fbr

FM-10 Emissions:

Emission Factor: 0.01 tbs/ton CAPSECC 3-05-011-05, page 122) .
Control Efficiency: 99.353 (Fabric Filter)
Calculations: 0.010 tbs/ton * 60 cu.yds/hr * 2.05 toss/cu.yd * 1.23 tbs/hr 1.23 tbs/hr * 250 hryr * 0.005 toss/yr * 5.39 toss/yr * (1.00 + 0.9935) * 9.64 toss/yr * 5.39 toss/yr * (1.00 + 0.9935) * 9.64 toss/yr

Hixer Leading of Communit/Sand/Aggregate

Process Rate: 80 cu,yds/hr (Raximum pasign) Hours of operation: -8760 hr/yr

ISP Emissions:

Emission factor: 0.04 lbs/ton CAFSICE 3-05-011-09, page 122) Control Efficiency: 03 Cafculations: 0.06 lbs/ton * 60 cu,yds/for * 2.05 tons/cu,yd a 4.92 lbs/for 4.92 lbs/for * 8760 he/pr * 0.0005 tons/is * 23.35 tons/yr 23.55 tons/pr * (1.00 -0.000) = 21.35 tons/yr

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PR-10 Enissions:

Emission factor: 0.02 lbs/ton CAFSECC 3-05-011-09, page 122) Control Efficiency: 0X Calculations: 0.02 lbs/ton * 60 cu.yds/to * 2.01 tons/cu.yd * 2.46 lbs/to 2.44 lbs/to * 8780 hr/yr * 0.0003 tons/to * 10.77 tons/yr 10.77 tons/yr * (1.00 + 0.000) * 10.77 tons/yr

Transfer: Sami/Aggregate to Elevated Bins

Process Rate: 60 pulyds/hr Keura of operations 8760 hr/yr

(Maximum Design)

129 Enlastana:

Emission Factor: 0.04 | Iberton (AFSSCC 3-05-01-06, page 122) Control Efficiency: 02 Celculations: 0.56 | Iberton * 60 milyde/hr * 2.01 ten/cilyd * 4.92 | Ibe/hr 4.72 | Ibe/hr * 2780 | hryer * 0.0035 | tens/b * 21.35 | Ions/yr 21.53 | Ions/yr * (1.00 - 0.000) * 21.35 | Ions/yr

Pa-10 Emissions

Emission Factor: 0.02 bbs/ton CAFSCC 3-05-011-06, page 122) Control Efficiency: CR Calculations: 0.02 bbs/ton 0.00 cu.yds/pr 0.2.05 tom/ou.yd 0.2.46 bbs/hr 2.46 bbs/hr 8-806 br/yr 0.0005 tom/bbs/br/r 10.77 tom/yr 10.77 tom/yr 0.100 0.9.000; 10.77 tom/yr

Feul Boads

Operating Hours: 8760 Bours/Fr
Vehicle Hiles Treveled: 346 VMI/Tr
Central Efficiency is 50% for watering,

TSF Emission factor is determined by the following equation:

En 5.9%/c(x/12)=(x/30)=(x/3)=0.7%(x/4)=0.5°PR

Mittel
En yer Calculation Factor in the Avenive CVMT1
En Particle sizing commons for 139
en silt Content in parcent
Sn Average Zapad of vehicles in mph 3.0 mph
the Average neight of vehicles in form 20.5 for
en average raped of shelts on vehicles
PR+ Precipitation Ratio based on the following:
130 Days with more than .0° of Precipitation
PR+ (365 days - 130 days)/365 Days = 0.6438

TSP Emissions:

TSP Emission factor: 1.78 Lbs/Wf

E(15P)= (346 YKT/Tr)(1.78 Lbs/WH)(0.5) E(15P)= 30E tbs/Tr or 0.15 Tors/Tr

PRIO Emission Foccor is decorpined by the following equation:

To S. Onto (2012)*(2/30)*(2/3)*00.7*(20/4)*00.5*PR

Shifted

Ex Particle sizing commant for Partic

as Sizin Content in percent

3. Average Speed of vehicles in spn

4. Severage subject of vehicles in spn

5.1. Sph

4. Severage subject of vehicles in spn

5.2. Sph

5.3. Sph

5.3. Sph

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5.4. Sph

5.5. Sph

5.5. Sph

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENT.

Subject:

Calar Country Air Quality Control Program

PHIC Emissions:

PM10 Emission Factor: 0.64 Lbs/MI

E(PH10)* (346 VHT/Yr)(0,64 Lbs/VHT)(0.5) E(PH10)* 111 Lbs/Yr or 0,06 Tors/Yr

Haul Roads (Dafly)

Operating Hours: 24 hours/day Yehicla Milas Traveled: 346 VHT/Yr Control Efficiency is 50% for watering.

(Estimated based on Maximum Production Rate)

TSP Emission Fector is determined by the following equation:

E= 5.0=k*(a/12)=(s/30)=(s/3)=0.7*(a/4)=0.5*PR
Where:
E=1SP Emission Factor in Lbs/Vehicle kite Traveled (VMT)
k* Particle sizing constant for 13> 1.0
as 51tt Content in parcent 8.7 5.0 eph
Us Average seeight of vehicles in Eph
Us Average weight of vehicles in Tors 20.8 for
us Average weight of vehicles on vehicles
PR= Assumes no precipitation 1.0000

TSP Emissions:

75P Emission Factor: 2.77 Lbs/VRT

E(TSP)= (346 VMT/Tr)(2.77 Lbs/VMT)(0.5) E(TSP)= 478 Lbs/Yr or 1.31 Lbs/day

PHIO Emission Factor is determined by the following equation:

PHIC Emissions:

PHIG Emission Factor: 5.00 Lbs/VRT

E(PH10) = (346 VHT/Yr)(1.00 Lbs/VHT)(0.5) E(PH10) = 172 Lbs/Yr er 0.47 lbs/day

V. · Existing Air Quality and Impacts

On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the city of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors of PM-10 emissions.

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Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA is now requiring the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

After an analysis, the department determined that emission limitations applicable to the Pack Concrete facility were in some cases nonexistent (no permit required) or several times higher than actual emissions (ARM 16.8.1403). Dispersion modelling conducted using emissions from the Pack Concrete facility at its potential to emit femissions associated with maximum design capacity or as limited by ARM 16.8.1403) indicated that some emission points within the facility were significantly contributing to the PM-10 concentrations in the Kalispell nonattainment area. As used in the preceding sentence, that term "significantly" means that the PM-10 emissions from Pack Concrete, when modeled, were greater than 5 micrograms per cubic meter impact for at least one receptor point within the Kalispell nonattainment area, consistent with the tederal Clean Air Act, Implementing regulations found at 40 CFR Part 51, and pertinent EPA guidance.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAQS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for the Pack Concrete facility. The new emission limitations in this document, in conjunction with similar limitations on other Kalispell area facilities, demonstrates through dispersion modeling that compliance with the NAAQS for PM-10 will be attained. These reductions in allowable emissions will be enforced through a signed stipulation.

With the proper utilization of existing control equipment and reasonable control techniques (watering or application of dust suppressant) for haul road dust the Pack Concrete facility should be able to operate at maximum design rates and remain in compliance with the stipulated emission limitations.

Kalispell and Evergreen Nonattainment Boundaries

The area is bounded by lines from UTM Coordinate 700000mE, 5347000mN, east to 704000mE, 5346000mN, south to 704000mE, 5341000mN, west to 703000mE, 5341000mN, south to 703000mE, 5340000mN, west to 702000mE, 5340000mN, south to 702000mE, 5339000mN, east to 703000mE, 5339000N, south to 703000mE, 5338000mN, east to 704000mE, 5338000mN, abouth to 704000mE, 5336000mN, west to 702000mE, 5335000mN, mast to 702000mE, 5335000mN, mast to 702000mE, 5335000mN, mast to 702000mE, 5335000mN, mast to 702000mE, 5345000mN, mast to 702000mE, 5345000mN, mast to 700000mE, 5345000mN, mast to 700000mE, 5347000mN, mast to 700000mE, 5347000mN.

Vi. Environmental Assessment

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

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STATE OF MONTANA
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DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogswell Building, Helena, Montana 59620 (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Project or Application: Pack Concrete Inc., Air Quality Stipulation for Kalispell SIP.

Description of Project: Concrete batching plant with a maximum design rate of 60 cubic yards per hour. This concrete batching plant produces concrete for use in commercial and residential construction projects in the Kalispell area.

Penefits and Purpose of Proposal: On July 1, 1987 the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). Due to exceedances of the national standards for PM-10, the citry of Kalispell and the nearby Evergreen area have been designated by EPA as nonattainment for PM-10. As a result of this designation, EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The stipulation identifies the emission sources and makes enforceable emission limitations and the operation of control equipment and techniques which when considered with similar limitations on other Kalispell area sources will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably evailable and prudent to consider: No reasonable alternatives are evailable.

A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency: A list of enforceable conditions and an analysis of conditions are contained in a signed stipulation.

Recommendation: An EIS is not required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from this plant will not change. This action makes the control equipment and control techniques at the plant enforceable and assures that the emissions from this facility when considered with similar emission limitations at other sources will attain the PM-10 NAAQS.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau

EA prepared by: Michael Glavin

Date: July 22, 1993

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subject:

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Potential Impact on Physical Environment

		Major	Moderate	Minor	Nane	Unknawn	Attached
1	Terrestrial and Aquatic Life and Habitats			Ĺ	×		
2	Water Guelity, Quentity and Distribution				X		
3	Geology and Soil Quality, Stability and Moisture		, .		×		
ă	Vegetation Cover, Quantity and Quality				×		
5	Assthatics				x		
٤	Air Guairty			x		,	
7	Unique Endangered, Fraçile or Limited Environmental Resource					x	
Ł	Demands on Environmental Resource of Water, Air and Energy				×		
1	Historical and Archeeological Sites					x	
10	Cumulative and Secondary Impects	1		×	I		

Potential Impact on Human Environment

	,	Major	Moderate	Most	None	Unknown	Comments Attached
1	Secial Structures and Mores				2	<u> </u>	
ž	Cultural Uniquenase and Diversity				X		
3	Local and State Tax Bess and Tax Revenue			•	x		
4	Agricultural or Industrial Production		,		x		
1	Human Health	L .	<u> </u>		X.	,	
4	Access to and Quality of Reconstonel and Wilderness Activities				x		
7	Quantity and Distribution of Employment				x		
4	Distribution of Foculation				×		
1	Demends for Government Sanfoss				x		
10	Industrial and Commercial Activity				x		
11	Leasily Adopted Environmental Plans and Goals			×			
12	Cumulative and Secondary Impacts	1			x		

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STATE OF MONTANA
AIR QUALITY CONTROL
IMPLEMENTATION PLAN

-unject:

Flathead County Air Quality Control Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of Plum Creek Manufacturing, L.P., Kalispell, Nontana, with 40 CFR 50.6, National Ambient Air Quality Standard for Particulate Matter and ARM 16.8.821, Montana Ambient Air

Quality Standard for PM-10

STIPULATION

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The Department of Health and Environmental Sciences ("Department"), and Plum Creek Manufacturing, L.P., ("Plum Creek"), hereby stipulate and agree to all the following Paragraphs 1-19 inclusive, including the exhibits as referenced below, in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

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BACKGROUND:

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1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers) ("particulate matter NAAQS"). The annual standard of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration), were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, at seq., as

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amended by the Clean Air Act Amendments of 1990 ("Act").

- Section 110 of the Act requires each state to submit an implementation plan for the control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the state. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance 12 with national and state ambient air quality standards.
- On April 29, 1988, the Board adopted state ambient 13 air quality standards for PM-10, including an annual standard 14 of 50 micrograms per cubic meter (annual arithmetic mean), and a 24-hour standard of 150 micrograms per cubic meter (24hour average concentration). ARM 16.8.821 ("PM-10 MAAQS"). 17
- On August 7, 1987, the Kalispell area was designated as a Group I area by EPA. 52 Fed. Reg # 29383. Pursuant to the Federal Clean Air Act all Group I areas, including 21 Kalispell, are designated by operation of law to be in non-22 attainment for the particulate matter NAAQS. 42 U.S.C. 7407(d)(4)(B), as amended. Further, the Act designated the 23 Kalispell area as a "moderate" PM-10 nonattainment area. 42 25 U.S.C. 7513(a), as amended. Por areas designated as "moder-26 ate", the state was required to submit to EPA an implements-

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tion plan no later than one year from enactment of November 15, 1990 amendments to the Act. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Kalispell nonattainment area") generally includes the City of Kalispell and that portion of Flathead County within the vicinity of the boundaries of the City of Kalispell. A map of the Kalispell nonattainment area is attached to the Stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.

- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Kalispell nonattainment area of the 24-hour standard contained in both the particulate matter NAAQS and the PM-10 MAAOS.
- 7. On November 25, 1991, Governor Stephens submitted to EPA an implementation plan for Kalispell, Montana, demonstrating attainment of the particulate matter NAAQS. The implementation plan relied upon the receptor modeling technique known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dusts emissions from roads, parking lots, construction and demolition projects, and barren ground.
- 8. On April 29, 1992, EPA notified Governor Stephens that the Kalispell implementation plan could be conditionally

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approved if certain deficiencies were corrected. A deficiency identified by EPA was that the emission limitations set for industrial sources (or in some cases for industrial sources where there was no emission limitation set at all) could result in significant emission increases above the emission levels occurring during the source apportionment modeling study (CMB). Furthermore, such potential emissions increases were not accounted for in the particulate matter HAAQS demonstration of attainment.

9. On June 15, 1992, Governor Stephens submitted a letter to EPA committing to additional analysis utilizing dispersion modeling technique on the Kalispell area industrial sources. If the dispersion modeling indicated that a source significantly impacted the nonattainment area, the Governor further committed to developing new emission limitations on the Kalispell area industrial sources which would demonstrate attainment of the particulate matter NAAQS.

10. The results of the earlier CMB modeling study were in part dependent upon the level of actual emissions from the various sources in the Kalispell area during the study period. However, and based upon a review of the allowable emissions for those same sources, the department is concerned that the allowable emissions do not correlate well to the actual emissions occurring during the period of CMB analysis. For example, in the case of Plum Creek, some emission points are not subject to emissions limitations, and other emission

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points have emissions limitations that are significantly higher that the actual emissions during the CMB study.

11. Dispersion modeling analysis has been conducted by the department for the Kalispell nonattainment area. The dispersion modeling incorporates the allowable emission rates from the sources of PM-10 emissions in the Kalispell nonattainment area to determine the extent of their respective contributions to the ambient levels of PM-10. Based upon the results of this modeling, the PM-10 emissions from Plum Creek were identified as a significant contributor to ambient levels of PM-10 in the Kalispell nonattainment area. The department believes that based upon these modeling results, revised emission limitations for Plum Creek are necessary to demonstrate compliance with the particulate matter NAAQS. The department has performed additional modeling using revised emission rates for Plum Creek and other sources in the Kalispell area to determine the level of emissions which achieves the particulate matter NAAQS. Based upon these modeling results, the department and Plum Creek agree to the revised emission limitations for Plum Creek, as set forth in Exhibit B.

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23 B. BINDING EFFECT

12. The parties to this Stipulation agree that any such emission limitations placed on Plum Creek must be enforceable by both the department and EPA. To this end, the parties

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have negotiated specific limitations and conditions that are to be applicable to Plum Creek. The specific conditions which comprise these limitations are contained in Exhibit B to this Stipulation (entitled "Emission Limitations and Conditions, Plum Creek, Inc.") which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.

13. Both parties understand and agree that if EPA finds the Kalispell implementation plan incomplete or disapproves the plan, or if future violations of the particulate matter NAAQS or PM-10 standard MAAQS occur, this Stipulation may be renegotiated and made enforceable through an associated Board Order or simply superseded by a subsequent order of the Board upon notice of hearing.

14. The Department is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Section 75-2-112(2)(c), MCA. Under Sections 75-2-101, MCA, et seq., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state. Such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.

15. The parties to this Stipulation agree that upon

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finding the limitations and conditions contained in Exhibit B to this Stipulation to be necessary for the Kelispell non-attainment area to meet the particulate matter NAAQS and the PM-10 MAAQS, the Board has jurisdiction to require the imposition of such limitations and conditions, and may adopt the same as enforceable measures applicable to Plum Creek.

16. The conditions and limitations contained in Exhibit B to this Stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to that Act.

17. Any obligations in this Stipulation and attached Exhibit B that are more stringent than conditions set forth in an air quality permit issued to Plum Creek, supersede the less stringent permit conditions.

18. Accordingly, the parties to this Stipulation agree that it would be consistent with the terms and intent of this Stipulation for the Board to issue an Order imposing the terms in this Stipulation and the limitations and conditions contained in Exhibit B of this Stipulation, and adopting the same as enforceable measures applicable to falum Creek.

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PLUM CREEK MANUFACTURING, L.P.

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL

SCIENCES

EX There is

Robert J. Robinson Director

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BY Mal T. Sty

BY INOTA F BAKER
Attorney

DATE 9/15/53

DATE 9/11/93

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STATE OF MONTANA
AIR QUALITY COMIMPLEMENTATION PLAN

Subject: Floting Souncy
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EXHIBIT B EMISSION LIMITATIONS AND CONDITIONS

Plum Creek Manufacturing, LP Evergreen Facility P.O. Box 5257 Kalispell, MT 59903

The above named company is hereinafter referred to as "Plum Creek."

Section I: Affected Facility

Plum Creek's Evergreen plywood plant located approximately 3 miles northeast of Kalispell, Montana near the Evergreen subdivision in SWX, Section 33, Township 29 North, Range 21 West, Flathead County.

Section II: Limitations and Conditions

A. Conditions

- Plum Creek shall comply with all requirements contained in this stipulation and all requirements contained in air quality permits issued by the department unless otherwise noted.
- Plum Creek shall comply with the emission limitations contained in Table
 The emission limitations in Table 1 supersede the related emission limitations in the air quality permit issued by the department.

Table 1

iource	Particulate Hatter lbs/hr	PH-10 Lbs/hr	Part. Hatter Ton/yr	PM-10 Tons/yr
Hog Fuel Boiler	16.1	16.1	70.52	70.52
Two Yeneer Dryers	32.8	24.1	143.66	105.56
Soumill Chip Bin Cyclone	2.58	1.29	11.30	5,65
Planer Shavings Bin Cyclones	16,40	6.20	71.83	35,92
Pines Cyclone	1.34	0.67	5.87	2.93
Sanderdist Silo Baghouse	0.32	0.32	1.40	1.40
Sander Cyclone Baghouse	6.17	6.37	27.02	27.02
Souline Baghouse	0.89	0.89	3.90	3.90
Dry Fuel Beghouse	0.86	0.86	3.77	3,77

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- Plum Creek shall not cause or authorize emissions to be discharged into the atmosphers from any access roads, parking lots, and log decks of the general plant property any visible fugitive emissions that exhibit opacity¹ of five percent (5%) or greater averaged over six (6) consecutive minutes.
- Plum Creek shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with chemical dust suppressant as necessary to maintain compliance with the 5% opacity! limitation.
- Plum Creek shall treat all log decks with water as necessary to maintain compliance with the 5% opacity! limitation.
- Plum Creek shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source an opacity' of twenty percent (20%) of greater averaged over six (6) consecutive minutes.
- Plum Creek shall operate the following control measures:

Hog Fuel Boiler

ESP

b. Two Venter Dryers ε.

Water Sprays

Sawmill Log Debarking Plywood Log Debarking d.

Water Sprays

Saw mill Chip Bin

Cyclone Baghouse

Planer Shavings Bin Plywood Fines

Cyclone

ĥ. Sanderdust Silo Sander Cyclone Baghouse

i. Sewline Baghouse **Eaghouse**

Dry Fuel

Baghouse

Planner Shavings Truck

Partial Enclosure

Loadovt

Plum Creek shall not debark more than 734,400 tons of logs per year.

₽. Testing

Plum Creek shall test the Sander Cyclone Baghouse and demonstrate compliance with the PM-10 emission limitation contained in Section II.A.2 by November 30, 1994.

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Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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- Plum Creek shall test the Planer Shavings Bin Cyclone Baghouse and demonstrate compliance with the PM-10 emission limitation contained in Section II.A.2 by November 30, 1994.
- Plum Creak shall test the Plywood Veneer Dryer emissions and demonstrate compliance with the PM-10 emission limitation contained in Section 11.A.2 by 1995.
- Plum Creek shall perform an analysis on the hog fuel, fines, planner shavings, and chips in accordance with the silt analysis procedures found in AP-42 Appendix C, D, and E. This analysis shall be completed and submitted to the department by March 1, 1994.
- Testing required in Section II.B.1 and II.B.2 shall be conducted in accordance with 40 CFR Part 51 and the Montana Source Testing Protocol.
- 6. Testing required in Section II.B.3 shall be conducted in accordance with 40 CFR Fart 51, Appendix M including backhalf, for PM-10 or 40 CFR Part 60, Appendix A including back-half, for total particulate used as a surrogate for PM-10. The test methods shall also conform to the Montana Compliance Source Testing Protocol. The dryer load shall be at 90% capacity during the test time.

C. Permitting

- Plum Creek shall obtain a permit from the Department of Health and Environmental Sciences limiting the emissions from the Log Yard Residue Reclaim System to 3.19 tons/year of PM-10 and 26 lbs/day of PM-10 before operating the system.
- Plum Creek shall obtain a permit to construct and operate the new Sander Baghouse and begin operation of the new Sander Baghouse prior to November 30, 1994.
- Plum Creak shall submit a request to the department by April 1, 1994
 asking the department to modify the air quality permit issued by the
 department to Plum Creak to include the limitations and conditions
 contained in this stipulation.

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> STATE OF MONTANA AIR QUALITY CONTRIBUTED IMPLEMENTATION PLAN

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Analysis of Conditions

Plum Creek - Evergreen

I. Purpose of the stipulation

As a result of the designation of the City of Kalispell and the nearby Evergreen area as nonattainment. EPA required the Department of Health and Environmental Sciences and the Flathead City-County Health Department to submit the Kalispell PM-10 State Implementation Plan (SIP) to EPA in November, 1991. The SIP consisted of an emission control plan that controlled fugitive dust emissions from roads, parking lots, construction, and demolition. Technical studies determined those sources were the major contributors of PM-10 emissions.

Receptor modeling (a model which identifies contributors based on actual area and industrial emissions and ambient data) was originally used to demonstrate attainment of the federal PM-10 standards in the SIP. The EPA subsequently required the department to use a dispersion model (a model which incorporates allowable emission rates from facilities) to assure that attainment can still be demonstrated if individual sources are operating at their maximum allowable emission rates.

In order to demonstrate compliance (through dispersion modeling) with the PM-10 NAAQS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for Plum Creek. Dispersion modeling using the new emission limitations in this document, in conjunction with limitations on other Kalispell area facilities, demonstrates attainment of the NAAQS for PM-10. These reductions and changes in allowable emissions will be enforced through a signed stipulation.

11. Emission Inventory

Source	TSP	PH-10	MCX .	VOC	co	SOX
How Fuel Bailer	70.52	70,52	112.18	54.09	160,26	6.91
Two Veneer Dryers	143.66	105.56		12.79		
Savmili Log Deberking	1,57	0.87				
Plywood Log Deberking	2.10	1.15				
Samilt Sieck Seulm	4.30	3.46				*
Plywood Black Saving	. 8.39	4.42			-	
Saumitt Chip Sin Cyclone	11.30	3.65				
Planer Shavings Bin Cyclone	71.83	35.92			•	
Fines Cyclone	5.87	2.93				
Sandardust Sile Wagnowse	-1.40	1.40				
Sander Cyclone 3.8.	27.02	27.02				
Sauline Saphouse	3.70	3.90				
Dry fuel 1.1.	3.77	3.77				
Ros Fuel Pile & Fuel Bunker	99.85	35.95				
Plywood Chips Truck Leedout	9.54	3.39				
Saumitt/planer Chips Truck Loadout	10.67	3.79				
Fines Truck Loadout	24,19	8.71				
Planner Shavings Truck Loadout	30.00	18,00				
Roads - Jupitives - Yearly	47.39	24.26				
Total Log Yard Emissions	7,32	3.19				
Total Enfastons	606.79	364.06	112.18	68.58	160.26	6.01

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STATE OF MONTANA
AIR QUALITY CONTROL
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Hog fuel Boller

TSP Emissions

Emission factor: 16.1 lbs/hr (Permit Limit)-Rours of operation: 8760 hour/year Calculations: 16.1 lbs/hr = 8760 = 0.0005 tons/lb = 70.52 tons/yr

PH-10 Feissiers

Emission Factor: 16.1 lbs/hr (Parmit Limit)
Nours of operation: 8760 hour/year
Calculations: 16.1 lbs/hr * 8760 * 0.0005 ters/lb * 70.52 tons/yr

NOx Emissions:

Emission Factor: 2.8 lbs/ton CAFSEF, SCC 1-02-009-02, page 24)
Control Efficiency: 0.0%
Process Rate: 80128 tory/year (Estimate)
Calculations: 80128 tory/year 2.8 lbs/ton * 0.0005 tons/lb = 112.18 tors/y:

VDC Emissions:

Emission Factor: 1.4 the/ton (AFSEF, ECC 1-02-009-02, page 24)
Control Efficiency: 0.03
Process Este: 80128 ton/year (Estimate)
Calculations: 20128 ton/year * 1.4 the/ton * 0.0005 tons/tb = \$55.07 time/m

CD Emissions:

Emission Factor: 4.0 lbs/ton (AFSEF, SCC 1-02-009-02, page 24)
Control Efficiency: 9.0X
Process Rate: 80128 ton/year (Estimate)
Calculations: 80128 ton/year * 4.0 lbs/ton * 0.0005 tons/to = 160.25 tons/y:

SO_R Enissions:

Emission Factor: 0.15 ibe/ton CAFSEF, SCC 1-02-007-02, page 24)
Control Efficiency: 0.0%
Process bate: 00128 ton/year (factimate)
Calculations: 80128 ton/year ° 0.15 ibe/ton ° 0.0005 tons/ib ~ 6.01 tons/yr

Two Yenner Dryars

TSP Emissions

Emission Factor: 32.8 (be/hr . (Permit limit) Nours of operation: 8760 hour/year Calculations: 12.8 (be/hr * 8760 * 0.005 tons/lb * 143.66 tons/yr

PH-10 Emissions:

Esission factor: 26.1 lbs/hr (Stipulation Limit)
Hours of Operation: 8760 hour/year
Calculations: 24.1 lbs/hr * 8760 * 0.0005 tors/lb = 105.56 tors/yr

VOC Emiesions:

Savaili Log Debarking

Lumber Production: 314,800 tens/yr (Based on Haximum Production Rate)

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Total Street

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757 Laissiens:

100

PM-10 Enfasions:

Entrainen Factor: 0.011 bbs/ton (AFSEY, SCC 3-07-008-01, p. 143)

Lentral Efficiency: 50% (Water Sprays)

Calculations: 314500 tems/yr * 0.01 bbs/ton * (1- 0.50) * 0.0005 tems/jb * 0.87 tens/yr

Plywood Los Sebarkins

Euchar Productions 419,600 tone/yr (Based on Maximus Production Sate)

757 Enissions:

Epission Factor: 0.02 lbs/ton CAFSEF, SCC 3-07-008-01, p. 163) Control Efficiency: 50% (Vater Sprays) Calculations: 419600 tons/yr * 0.02 lbs/ton * (1- 0.50) * 0.0005 tons/lb * 2.10 tons/yr

16 Injustant

Enission Factor: 0.611 lbs/ton CLFSEF, SCC 3-07-008-01, p. 143)
Control Efficiency; SCI (Water Sprays)
Calculations: 419606 toms/yr * 0.01 lbs/ton * (1- 0.30) * 0.0005 tons/ib * 1.15 tons/yr

Savafil Block Sauling

Lumber Production: 314,800 tors/yr (Rased on Haximum Production Bate)

fish Enissions

Esission Factor: 0.04 Nbe/ton (Based on knowledge of the process)
Control Efficiency: 01
Calculations: 314800 tons/yr * 0.04 Nbe/ton * 0.0000 tons/tb * 6.30 tons/yr

PK-10 Existings

Enissish Factor: 0.022 |bs/ton (Based in knowledge of the process)
Control Efficiency: 01
Calculations: 314803 tons/yr * 0.022 |bs/ton * 0.005 tons/jb × 3.66 tons/yr

Plywood Block Saving

tumber Production: "419,600 tons/yr" (Based on Maximum Production Rata)

ISP Exissions

Emission factor: 0.64 (ba/ton (Based on Empelodge of the process)
Control Efficiency: 01
Emiculations: '419600 tons/yr * 0.04 (ba/ton * 0.0005 tons/tb + 8.39 tons/yr

10 Esistions:

Enission Factor: 0.022 ba/ton (Weese on knowledge of the process)
Control Efficiency: 01
Caiculations: 419600 tens/yr 0.022 ba/ton 0.0005 tens/th 0.62 tens/yr

Soumitt Chip Ein Eyclone

Hours of operation: 8760 hrs/yr

150 Enispiers

Enissian Pactor: 2.58 lbe/hr (based on ratio in AIAS)
Calculations: 8760 hrs/yr = 2.58 lbe/hr = 0.0005 toms/tr = 11,30 toms/yr
Z.58 lbe/hr = 8760/92600 NBF/year = 0,24 lbe/MBF

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Air Quality Control
Program

PA-10 Enissions:

Emission Factor: 1.29 lbs/hr (based on information from compuny)
Calculations: 8760 hrs/yr * 1.29 lbs/hr * 0.0003 tons/lb = 5.55 tons/yr
1.29 lbs/hr * 8760/92500 MBF/yrar = 0.12 lbs/hs/

Planer Shavings Bin Cyclone

Hours of operation: 8760 hrs/yr

ISP Emissions:

Emission Factor: 16.40 lbs/hr (Based on AP-42 and flowrate)
Calculations: 8760 hrs/yr * 16.40 lbs/hr * 0.0005 tons/lb * 71.25 tons/yr
16.40 lbs/hr * 8760/123400 MBF/year = 1.16 lbs/hs/

PH-10 Emissions:

Emission Factor: 8,20 lbs/hr (Besed on AP-42 and flowrate)
Calculations: 8760 hrs/yr * 8,20 lbs/hr * 0,0005 tens/lb * 35,92 ton/yr
8,20 lbs/hr * 8760/125400 MBF/year = 0,58 lbs/MBF

Fines Eyclone

Hours of operation: B760 hrs/yr

TSP Emissions:

Edission Factor: 1.34 (be/hr | Chased on ratio in AIRS)
Calculations: 8720 Ars/yr = 1.34 (be/hr = 0.0005 tows/b = 5.27 toms/yr = 1.34 (be/hr = 8760/200x10^6 ft^2/year = 0.00006 (bs/10^6 ft^2

PH-10 Emissions:

Emission Factor: 0.67 lbs/hr (based on information from company) Calculations: 8750 hrs/yr $^{\circ}$ 0.67 lbs/hr $^{\circ}$ 0.0005 zone/b $^{\circ}$ 2.73 tens/yr 8.67 lbs/hr $^{\circ}$ 8760/200x10°6 ft^2/yesr $^{\circ}$ 0.00003 lbs/10°6 ft^2

Senderdust Silo Beghouse

Hours of operation: 8760 hrs/yr

TSP Emissions:

Emission Factors 0.32 \ba/hr | Cossed on information from company)
Celculations: 8760 hrs/yr * 0.32 \ba/hr * 0.0005 \tora/lb * 1.40 \tora/yr
0.32 \tora/hr * 8760/200x10^6 ft^2/year = 0.00001 \tora/10^6 ft^2

PM-10 Emissions:

Emission Factor: 0.32 lbs/hr (based on information from company)
Calculations: 8760 hrs/yr = 0.32 lbs/hr = 0.0005 tons/lb = 1.40 tons/yr
0.32 lbs/hr = 8760/200x10^6 ft^2/yebr = 0.00001 lbs/10^6 ft^2

Sender Cyclone B.M.

Nours of operation: 8760 hrs/yr

TSP Emissions:

Emission Factor: 6.17 lbs/hr (based on information from company)
Calculations: 8760 hrs/yr * 6.17 lbs/hr * 0.0005 tons/lb = 27.02 toms/yr
6.17 lbs/hr * 8760/200x10°6 ft^2/year * 0.00027 lbs/10°6 ft^2

PM-10 Emissions:

Emission fector: 5.17 bbs/hr (based on information from company) Calculations: 8760 hrs/yr $^{\circ}$ 6.17 bbs/hr $^{\circ}$ 8760/200x10 $^{\circ}$ 6 ft $^{\circ}$ 2/year $^{\circ}$ 0.0007 bbs/10 $^{\circ}$ 6 ft $^{\circ}$ 2 bbs/hr $^{\circ}$ 8760/200x10 $^{\circ}$ 6 ft $^{\circ}$ 2/year $^{\circ}$ 0.00027 bbs/10 $^{\circ}$ 6 ft $^{\circ}$ 2

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AIR QUALITY

THE STATE OF MONTANA
AIR QUALITY

THE STATE OF MONTANA

Subject: Flathead Control
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Sauline Baghouse

Hours of operation: 8760 hrs/yr

' TSP Emissions:

Emission factor: 0.89 lbs/hr (based on information from company) Calculations: 8760 hrs/yr = 0.89 lbs/hr = 0.0005 toms/lb = 3.90 toms/yr 0.80 lbs/hr = 3760/20010^6 \pm 12/year = 0.0000 lbs/l0^6 \pm 2

PK-10 Emissions:

Emission Factor: 0.89 lbs/hr (hased on information from company)
Calculations: 8760 hrs/yr * 0.89 lbs/hr * 0.0005 tors/lb * 3.90 tons/yr
0.89 lbs/hr * 8760/200x10^6 ft^2/year = 0.00004 lbs/10^6 ft^2

Dry Fuel B.H.

Hours of operation: 8760 hrs/yr

TS2 Emission

Emission Factor: 0.86 lbs/hr (based on information from company) Calculations: 8760 hrs/yr * 0.86 lbs/hr * 0.800 tong/lb * 3.77 tons/yr * 0.86 lbs/hr * 8760/200.10*6 it*2/year * 0.0004 lbs/10*6 it*2

PM-10 Emissions:

Emission Factor: 0.86 lbs/hr (based on information from company)
Calculations: 8760 hrs/yr * 0.86 lbs/hr * 0.0005 tors/lb * 3.77 tons/yr
0.86 lbs/hr * 8760/200x10°6 ft°2/year * 0.0000c lbs/10°6 ft°2

Hog Fuel Pile & Fuel Bunker

TSP Emissions:

Emission Factor: 1.00 lbs/ton (AFSEF, SEC 3-07-008-03, page 143)
Control Efficiency: 0.0%
Process Rate: 199700 ton/year Olexisus production rate)
Calculations: (99700 ton/year = 1.00 lbs/ton = 0.0005 tens/lb = 99.85 tens/yr

PM-10 Emissions:

Emission Factor: 0.36 lbs/ton CAFSEF, SCC 3-07-008-03, page 143) Control Efficiency: 0.02 Process East: 199700 ton/year ** 0.36 lbs/ton ** 0.0005 tons/tb = 35.95 tons/yr Calculations: 199700 ton/year ** 0.36 lbs/ton ** 0.0005 tons/tb = 35.95 tons/yr

Plywood Chips Truck Leadout

Process Rate: 106,000 tons/year

TSP Emissions:

Emission Factor: 0.18 lbs/ton (Estimate based on knowledge of process & size of material) Calculations: 105000 tons/year * 0.18 lbs/ton * 0.0003 tons/tb = 9.54 tons/ye

PM-10 Emissions:

Emission Factor: 0.064 lbs/ton (Estimate based on knowledge of process & size of metarial) Calculations: 106000 tons/year * 0.064 lbs/ton * 0.0005 tons/(b * 3.39 tons/ye

Savnill/ptener Chips Truck Loadout

Process Rate: 118,500 tons/year

TSP Emissions:

Emission Factor: 0.18 (bs/ton (Estimata based on knowledge of process 2 size of paterial) Calculations: 118500 tons/year $^{\circ}$ 0.18 (bs/ton $^{\circ}$ 0.005 tons/(b \times 10.67 tons/yr

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e and Marketon

riathead County Air Quality Control

PH-10 Emissions:

Emission Factor: 0.064 lbs/ton (Estimate based on knowledge of process & size of material) Calculations: 118500 tons/year * 0.064 lbs/ton * 0.0005 tons/tb = 3.79 tons/yr

Fines Truck Londout

Process Rate: 48,370 tons/year

TSP Emissions:

Esission Factor: 1.00 lbs/ton (3-07-008-03, AFSSCC page 143) Calculations: 48370 tons/year * 1.00 lbs/ton * 0,0005 tons/lb = 24.19 tons/yr missions:

PH-10 Emissions:

Emission Factor: 0.36 tbs/ton (3-07-008-03, AFSSCC page 143) Calculations: 46370 tons/year = 0.36 lbs/ton = 0.0005 tons/(b = 8.71 tons/yr

Planner Shavings Truck Loadout

Production Rate: 30000 tons/year ...

TEP Emissions:

Enission Factor: 2.00 (bs/ton (3-07-030-02, AFSSCC page 144)
Calculations: 30000 tons/year * 2.00 (bs/ton * 0.0005 tons/(b = 30.00 tons/yer

PM-10 Emissions:

Emission Factors 1.20 lbs/ton (3-07-030-02, AFSSEC page 142)
Calculations: 30000 tons/year * 1.20 lbs/ton * 0.0005 tons/b * 18.00 tons/yr

Moads - Fugitive - Yearly

Precipitation ratio based on 130 days with more than .DIM of precipitation.

Control Efficiency of 85% for chamical dust suppressent is applied to all unpoved road emissions. Control of 50% for mater application used for log yards.

Unpaved road emission factor is determined by the following equation:

E= 5.9-k*(s/12)*(s/30)*(W/3)*0.7*(w/4)*0.5*PR

Where:
So meiasion factor in the/webicle mile traveled CVNT)
Re particle sizing constant (1.0/ISP, 0.36/PN-10)
se assumed to be 10 % silt
3= average speed of vehicles in mph
the average tenish of webicles in tons
we average number of wheels on vehicles
PRm (365 - 130)/365 = 0.6438

Ions Per Year (PR-10): # (VNT) (lbs/VNT) (EF) (CE) # 18500(3.95)(1-.85)/2000 # 5,60 tons per year of PN-10

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STATE OF MONTANA AIR QUALITY CONTROL

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El County Air Quality Control

Haul and	Access	Roads	(85%	Control	١ (

Source	5	٧	¥	TSP	PR-10	VXT	TSP	FH-10	
•	(aph)	(tons)	(#)	(LEL/MIT)	(Ibs/MI)	(annuel)	(TPT)	(TPY)	
Log Trucks Loaded	8.0	40	18	10.58	1.55	18900	15.56	5.60	
Log Trucks Empty	8.0	14	18	5.25	1.50	16240	6,41	2.31	
Chip frucks Loaded	8.0	53	18	13.37	4.81	3402	3.41	1.23	
Chip Trucks Empty	B.0	18	18	6.28	2.24	3402	1.60	0.58	
Shavings Trucks Loaded	8.0	32	18	9.39	3.38	935.Z	0.66	0.24	
Shavings Trucks Empty	8.0	18	18	6.28	2.25	935.2	0.44	0.16	
Saudist Trucks Loaded	8.0	38	18	10.37	3.51 .	751.8	0.60	0.21	
Saudust Trucks Empty	8.0	20	18	6.76	2.43	751.8	0.38	0.14	
Fuel Trucks Loaded	8.0	52	18	13.19	4.75	641	0.44	0.16	
fuel Trucks Empty	8.0	. 20	18	6.76	2.43	. 392	0,23	0.07	
Dump Trucks Loaded	15.0	21	10	\$,77	3.52	4 6412	4.70	1.69	
Ours Trucks Empty	15.0	12	10	6.60	2.38	6412	3.18	1.14	
Water Trucks Loaded	15.0	24	10	10.73	3.86	1568	1.26	0.45	
Water Trucks Empty	15.0	11	10	6.21	2.24	7336	3.42	1.23	
Wagners 190 & 1100 Loaded	5.0	128	4	7.30	2.43	16204	8.87	3.19	
Wagners L90 & L100 Empty	5.0	80	4	5.25	1.87	16204	6.38	2.30	
Cat 566 Loaded	5.0	26	4	2.39	0.26	5040	0.90	0.33	
Cat 566 Empty	5.0	20	4	1.99	0.72	14980	2.24	0.81	
Employee Vehicles	20.0	3	4	2.11	0.76	6902	1.09	0.39	
Subtotel:							61.74	22.23	

Log Yard (50% Control):

Source			(Ē)	(Its/wit)		(armual)	ci	PY)	
Wagners 190 & 1100 Loaded Wagners 190 & 1100 Loaded	5.0	125		7.33 5.25	2.63 1.89	1200 1800	· .	3.29 2.36	1.18 0.85
Subtoral:								5.45	2.03

Total Emissions of Haul/Access toads and Log Decks:

67.39 24.25

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STATE OF MON ANA AIP CALITY CONTROL INPLEMENTATION PLAN Subject: Flathead County Air Quality Control

Clarks top Yard Sesidus Reclaim System

Arres (Mission Retes (Alloyable) .

Source								
emre.	129	F- 10	MEAN.	AX.	B	\$07		
Front End Leader Dump to Reclaimer	1.05	C, 13	******	******	• • • • • • • •			
Reclaimer Hagerial Transfer and Conveying	0.77	0.17						
Frimmry Classifier	0,77	0.17						
2-5h Katerial Conveyor Blackarge to EMS Troomel Screen	0,15	6.03						
4 1/4" Fines Stacker Discharge	2.07	1.56						
1/4" to 2" Material Brop to RMS	0.86 0.15	0.40						
AMS 81 Discharge	0.15	6.03						
NS 12 Discharge	9,15	0.03						
1/6" to 5" fuel Conveyor Discharge 1/6" to 5" Rock Conveyor Discharge	1.03	0.44						
the real name emission historials	0.34	0.16						
Total Log Yard Emissions	7.52	3.10	0.00	0.00	63.0	9.65		

* Based on operating 2940 hours/year.

Jully Emission Bates (allowable) **

force	ibs/day								
170/124	112	14-10	#世末	AGC	62	50X			
frest End Leader Dump to Reclaimer	8.64	1.64		• • • • • • • • • • • • • • • • • • • •		******			
Recisions Material Transfer and Conveying	6.25	1.38							
Primry Classifier	4.25	1,38							
2-5" Hateflat Corneyor Discharge to SHS Transel Streen	1.25	0.23							
< 1/4" Firms Stacker Discharge	16.93 50.5	12.70			*				
1/4" to 2" Material Brop to BHS	1.25	D. 28							
E-S &1 Discharge	1.25	·- 0.23	*						
Ars of Discharge	1.25	0.78							
1/4" to 5" Fuel Conveyor Discharge 1/4" to 5" Rock Conveyor Discharge	4.42	3.29							
a varm marttaline firstiellas	2.81	1.30							
Total Emissions	A1.37	25.03"	6.00	0,00	0.22	0.00			

** Sacad on operating 12 hours/day.

Front End Loader Dump to Rectainer

Process Rate: 40 cu.yda/hr % af Total throughput: 100% Raterial Demity: 0.6 ten/cu.yd Bours of operation: 2040 Pe/yr 12 Ars/day

TEP Emissions:

Emission Sector: 0.02 the/ten CAFSCF 3-05-825-06, page 129)
Control Efficiency: 0X
Celculations: 0.0200 the/ten = 0.00 ten/cul.yd = 0.00 ten/pa/Ar = 0.0005 tens/ib = 0.7200 tbs/r
0.7200 tbs/r= 2940 br/yr= 0.0000 tens/tb = 1.05 tens/yr
1.06 tens/yr= (1.00 - 0.000) = 1.06 tens/yr
0.72 lbs/kr= 12 hrs/day = (1.00 - 0.00) = 8.04 tbs/day

F4-16 Emissions:

Emissian factor: 8.0026 lbs/ton (AFEF 3-03-025-06, page 129)
Control Efficiency: 8%
Calculations: 0.0076 lbs/ton * 0.60 ton/cu.yd * 60.00 mi.yds/Rr * 0.0005 ton/lb = 0.0864 lbs/
Calculations: 0.0076 lbs/ton * 0.60 ton/cu.yd * 60.00 mi.yds/Rr * 0.0005 ton/lb = 0.0864 lbs/
0.09 lbs/hr = 2960 hr/yr * 0.0005 ton/lb = 0.13 toms/yr
0.13 toms/yr * (1.00 * 0.000) = 0.13 toms/yr
8.09 lbs/hr = 12 hrs/day * (1.00 * 0.00) = 1.04 lbs/day

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STATE OF MONTHAIR AIR CALITY CONTROL
TOPLEMENTATION PLAN

Subject:

1 - 1

Flathead County Air Quality Control

Reclaimer Haterial Transfer and Conveying

Process Bate: 40 cu.yds/hr % of Totel throughput: 180% Material Density: 0,6 ton/cu.yd Hours of operation: 2940 hr/yr 12 hrs/day

TSP Emissions:

Emission factor: 0.029 tbs/con (AFSEF 3-05-025-03, page 129) [Value Sprays or Emission factor: 50% (Water Sprays or Emission for Emission for 1.0220 tbs/con = 0.0800 tbs/ch = 0.0000 tos/ch = 1.5220 tbs/con = 0.0800 tbs/con = 0.

PM-10 Emissions:

Emission fector: 0.0064 lbs/ton (AFSEF 3-05-025-03, page 129)

Control Efficiency: 503 (Ustar Sprays or Baturally Wet Material)

Calculations: 0.0064 lbs/ton * 0.60 ton/cu.yd * 60.00 cu.yds/hr * 0.0005 tons/ib * 0.22 lbs/r

C.25 lbs/hr * 2940 hr/yr * 0.0005 tons/lb * 1.34 tons/yr

0.34 tons/yr * (1.00 - 0.500) * 0.17 tons/yr

0.25 lbs/hr * 12 hrs/day * (1.00 - 0.50) * 1.38 lbs/day

Primary Classifier

Process Note: 60 cu.yds/hr % of Total throughput: 100% Meterial Demaity: 5.6 ton/cu.yd Nours of operation: 2940 hr/yr 12 hrs/day

TSP Emissions:

Emission Factor: 0.029 the/ton (AFSEF 3-05-025-05, page 119)
Control Efficiency: 50% (Water Sprays or Naturally Wet Naterial)
Calculations: 0.0290 lbe/ron *0.040 ton/scu,40 60.00 cu-sks/pr *0.0005 tons/tb *1.1442 lbs
1.0440 lbe/hr *2940 hr/yr *0.0005 tons/lb *1.53 tons/yr *4.100 -0.500 a 0.77 tons/yr
1.03 lbe/hr *32 hrs/day *(1.00 -0.50) a 6.26 lbs/day

PM-10 Emissions:

Epission Factor: 0.0064 lbs/ton (AFSEF 3-05-025-03, page 129)
(control Efficiency: 30% (Water Sprays or Vacurally Net Material)
Calculations: 0.0066 lbs/ton > 0.66 ton/cut.ye \$ 6.00 cut.yeb/hr = 0.0005 tons/lb = 0.12 lbs/r
0.23 lbs/r = 2940 br/yr = 0.0005 tons/lb = 0.34 tors/yr
0.23 lbs/r = 2940 br/yr = 0.0005 tons/lb = 0.34 tors/yr
0.23 lbs/r = 12 hrs/dey = (1.00 > 0.50) = 1.38 lbs/day

2-5" Haterial Conveyor Discharge to RMS

Process Rate: 60 cu.vds/hr K of Total throughput: 202 Naterial Dansity: 0.6 ton/cu.yd Hours of operation: 2940 hr/yr

12 hrs/day

TSP Entesions:

Emission Factor: 0.029 lba/ton (AFEEF 3-05-025-03, page 129)
Control Efficiency: 50% (Mater Sprays or Naturally Wet Naturial)
Celtulations: 0.0290 lba/ton *0.040 bon/cu.vid *6.000 cu.val/hr *0.0005 tons/tb *0.1112 lb:
0.2088 lbs/hr * 2940 hr/yr *0.0005 tons/tb *0.31 tons/yr
0.31 tons/yr *0.000 *0.500 +0.15 tons/yr
0.21 tes/hr * 32 hrs/day *0.100 - 0.390 +1.25 lbs/day

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STATE OF TANA
ALL CONTROL
IMPLEMENTATION

Subject: Flathead County
Air Quality Control
Program

PR-10 Enissiems:

Enission Factor: 0.0064 (bs/ten (LEEEE 3-05-028-03, page 125)
Control Efficiency: SOX (veter Sprays an Naturally Met Material)
Calculations: 0.0064 (bs/ten * 0.06 ton/cu,d* = 0.000 cu,rds,hr * 0.0005 ton/lb = 0.05 (bs/ten/lb = 0.005 ton/lb = 0.05 ton/lb = 0.005 ton/lb = 0.07 ton/rr * (0.005 ton/lb = 0.07 ton/rr * (0.005 ton/rr * 0.005 ton/lb = 0.07 ton/rr * (1.00 - 0.300) = 0.03 ton/lr * (0.005 ton/lb = 0.05 ton/lb = 0.05 ton/lr * (1.00 - 0.300) = 0.25 ton/dby

Tramel Screen

Process Rate: 60 cu.yds/hr % of Total throughput: 70% Raterial Demaity: 0.6 tom/cu.yd Nours of speration: 20%0 hr/yr 12 hrs/day

TSP Exissions:

Estation Factor: 0.16 low/ten (AP-42, 8.19,1-1)

Control Efficiency: 652 (fixed Cover and Vet Meterial)

Catculations: 0.16 lbx/ten * 0.60 cov/cu/ys * 60.00 cu/yss/hr * 0.0005 ton/lb * 6.0320 lbs/h:

6.0320 lbs/hr * 276 hr/yr * 0.0005 tons/lb * 5.93 tons/yr

5.93 tons/yr * (1.00 - 0.650) * 2.07 tons/yr

6.03 lbs/hr * 12 hrs/day * (1.00 - 0.65) * 16.93 lbs/day

PM-10 Emissions:

< 1/4" Fines Stucker Discharge

Process Rate: 60 cu.ydu/hr X of Tatal throughput: 50% Material Denaicy: 0.6 ten/eu.yd Hours of operation: 2940 hr/yr

12 hrs/day

TSP Exissions;

Emission Factor: 0.13 lbs/ton (APSEF 3-05-025-05, page 129)
Control Efficiency: 75% (Oust Sock end but Haterial)
Calculations: 0.13 lbs/ton * 0.60 Em/cu.yd * 60.00 cu.yds/hr * 0.0005 tons/lb = 2.3400 lcs/r
______2.3400 lbs/hr * 240 hrs/r * 0.0003 tons/lb * 3.44 toms/yr
________3.44 toms/yr * (1.00 * 0.750) * 0.66 toms/yr
_________2.34 lbs/hr * 12 hrs/day * (1.00 * 0.75) = 7.02 lbs/day

PM-10 Emissions:

Emission Factor: 0.06 lbs/ton CAFSEF 3-05-023-05, page 129; Control Efficiency: 75% (Quan Seak and Wei Material) Calculations: 0.0000 lbs/ton 9.0.0 ton/cu/od 0.00 cu/ods/ar = 0.0005 tons/lb = 1.08 lbs/r 1.00 lbs/r = 2440 hr/pr = 0.0005 tons/lb = 1.59 yons/yr 1.39 tons/yr = (1.00 - 0.730) = 0.40 tons/yr 1.08 lbs/r = 12 hrs/day = (1.00 - 0.73) = 3.26 lbs/day

1/4" to 2" Haterial Drop to AMS

Process Rate: 60 cu.yds/hr % of Total throughput: 20% Haterial Dersity: 0.6 ton/cu.yd Hours of operation: 2940 hr/yr

12 hrs/day

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STATE OF MONTH AIR CALITY CONTROL IMPLEMENTATION PLAN Subject: Flathead County Air Quality Control

157 Enissions:

Emission factor: 0.029 lbs/ton (A/SEF 3-05-025-03, page 129)
Control Efficiency: 50% (Water Eprsys or Maturally We: Material)
Calculations: 0.03 lbs/ton * 0.60 tox/cu.yd * 60.00 cu.yds/hr * 0.0005 tons/lb = 0.2628 lbs/r
8.2088 lbs/tr * 2540 hr/yr * 0.005 tons/lb = 0.31 tons/yr
0.31 tons/yr * (1.00 - 0.500) = 0.15 tons/yr
8.21 lbs/hr * 12 hrs/dsy * (1.00 - 0.50) = 1.25 lbs/coy

PR-10 Emissions:

Emission Factor: 0,0044 lbs/ton (AFSEF-3-05-025-03, page 120)
Control Efficiency: 500 (user Sprays or Maturally Vet Naterial)
Calculations: 0.0044 lbs/ton * 0.60 ton/cu,d* 0.600 cu,vgd*/n* = 0,0005 tons/lb = 0.63 lbs/n* 2500 hr/y* 0.0005 tons/lb = 0.07 tons/yr
0.05 lbs/hr * 2500 hr/y* 0.0005 tons/lb = 0.07 tons/yr
0.05 lbs/hr * 12 hrs/day = (1.00 = 0.50) = 0.28 lbs/day

RMS #1 Discharge

Process Bate: 60 eu.yds/hr 2 of lotel throughput: 202 Naterial Denaity: 0.6 ton/cu.yd Hours of operation: 2940 hr/yr

12 hrs/day

TSP Emissions:

Emission factor: 0.029 (ms/ton CAFSEF 3-05-625-83, page 129)
Control Efficiency: 50% (Siter Sprays or Naturally Net Material)
Calculations: 3.03 (bs/ton 0.63) ton/cou.yd 40.00 cu.yds/h 0.0605 tons/ib = 0.1022 (bs/h0.2028 (bs/hr 2540 hr/yr = 0.0005 tons/ib = 0.31 tons/yr
0.33 tons/yr = (1.00 - 0.500) = 0.15 tons/yr
5.21 (bs/hr = 12 brs/day = (1.00 - 0.50) = 1.25 (bs/day

PM-10 Emiaziona:

Emission Factor: 0.006/ lbs/ton (AFSEF 3-05-025-03, page 129)
Control Efficiency: .502 (Water Sprays or Naturally Wat Materiet)
Calculations: 0.0064 lbs/ton = 0.63 ton/cutyd = 0.00 cutystar = 0.0005 tons/lb = 0.05 lbs/n: 0.05 lbs/n: 0.005 ton/cutyd = 0.07 tons/yr .0.005 tons/lb = 0.07 tons/yr = 0.05 lbs/n: 12 hrs/day = (1.00 - 0.50) = 0.28 lbs/day

BMS #2 Discharge

Process Rete: 60 culyds/hr % of Tatal throughput: 202 Haterial Density: 0.6 ton/culyd Hours of operation: 2940 hr/yr

TSP Emissions:

Emission Factor: 0.020 lbs/ton CAFSEF 3-05-023-03, page 129)
Control Efficiency: 501 (Users Sprays or Naturally Max Material)
Calculationa: 0.03 lbm/ton *0.06 undown, of 0.00 cutydath* *0.0005 tons/lb *0.2008 lbs/hr
6.2008 lbm/hr *2,9540 Mr/yr *0.0005 tons/lb *0.31 tons/yr
0.31 tons/r* *(1.00 - 0.500) = 0.15 tons/yr
0.21 lbm/hr *12 hrs/day *(1.00 - 0.50) *1.25 lbs/day

FY-10 Emissions:

Ealswinn Factor: 0.006/ lbs/ton (AFREF 3-05-025-03, page 125)
Control Efficiency: 502 (Vater Borays or Baturally Not Material)
Calcutations: 0.0066 lbs/ton *0.05 ton/cuty d* 40.00 cutysday** 0.0005 tons/lb * 0.65 lbs/nr
0.05 lbs/hr * 2560 hr/yr * 0.0005 tons/lb * 0.67 tons/yr
0.05 lbs/hr * 12 hrs/day * (1.00 - 0.50) = 0.28 ibs/day

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Subject:

Flathead County Air Quality Control Program

7.0

1/4" to 5" fuel Conveyor Discharge

Process Nate: 60 cu.ydg/hr % of Total throughput: 30% Hateriel Density: 0,6 ton/eu.yd Hours of operation: 2940 hr/yr

12 Ers/day

TAP Emissions

Emission factor: 0.13 kbs/ton CATELY 3-05-025-25; page 129)
Control Efficiency: 50% (Vater Sprays or hatmosity Not Material)
Calculations: 0.13 bs/ton 0.06 tor/outy 0.60,00 cu.ycty/h.# 0.0005 kms/lb = 1,4040 lbs/lr
5.000 bs/hr = 2500 kr/yr = 0.0005 cms/lb = 2.06 tors/yr
2.06 tors/yr = (1,00 = 0.500) a 1.03 tors/yr
1.00 tos/nr = 12 hsr/cay = (1.00 = 0.50) = 2.42 bs/day

PR-10 Emissions:

Emission Factor: 0.06 (be/for CAFEF 3-05-027-05, page 129)
Control Efficiency: 50% (Veter Spreys or Matterial)
Calculations: 0.8800 (be/for 9-0.85 to-0.00 cutys/phr 9-0.005 tens/lb = 0.45 (be/for 9-0.85 to-0.005) to-0.005 to-0.0

1/4" to 5" Rock Corwayor Discharge

Process Rate: 60 cu.yds/hr I of Total throushput: 10% Katerial Geneity: 0.6 ton/cu.yd Haurs of operation: 2060 hr/yr 12 hrs/day

759 Emissions;

PH-10 Emissions:

Estasion Factor: 0.06 lbe/ton CAFSE 3-05-02-22, page 129)
Centrel Efficiency: 50% (Water Spraye or Maturally Mat Material)
Celculations: 0.0000 lbs/ton = 0.60 solved.vd = 0.000 solved.hr = 0.000 tene/lb = 0.22 lbs/hr = 0.22 lbs/hr = 0.24 lbs/hr = 0.0005 tene/lb = 0.12 tone/yr = 0.12 tone/yr = 0.12 tone/yr = 0.100 solved.vd = 0.100 solved.yr = 0.136 lbs/day

III. Environmental Assessment

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

Final Bugularian: \$/17/93

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THE PARTY.

Donald Comment

Chapter I

STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION, DEAD

Subject:

Flathead County Air Quality Control

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES Air Quality Bureau Cogsweit Building, Helena, Montana 59620 (406) 444-3454

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Freject or Application: Plum Creek Manufacturing, LP - Evergreen Facility, Air Quality Stipulation for Kalispell SIP.

Description of Project: In order to demonstrate compliance (through dispersion modeling) with the FM-10 NAAOS in the Kalispell nonattainment area, it is necessary to reduce or establish new emission limitations for Plum Creek.

Banefits and Purpose of Proposal: This stipulation identifies the emission sources and makes entorceable emission limitations which, when considered with limitations on other Kalispell area scurces, will achieve the PM-10 NAAQS.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider. No reasonable alternative exist.

Absting and appropriate evaluation of mitigation, stipulations and other controls enforceable by the spency or another government agency: A listing of enforceable conditions are contained in the signed stipulation and in permit #2602-01 (or subsequent permits).

Recommendation: An EIS is not required.

If an EIS is needed, and if appropriate, explain the reasons for preparing the EA:

If an EIS is not required, explain why the EA is an appropriate level of analysis: The emissions from the plant will not change, this action establishes enforceable emission limitations.

Other groups or agencies contacted or which may have overlapping jurisdiction: None.

Individuals or groups contributing to this EA: Department of Health and Environmental Sciences, Air Quality Bureau.

EA prepared by: Catherine Quiñones

Date: August 4, 1993

Final Suputation: 9/17 %3

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STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN Subject: Lincoln County Air Quality Control Program

BEFORE THE BOARD OF HEALTH AND ENVIRONMENTAL SCIENCES OF THE STATE OF MONTANA

In the Matter of Compliance of Stimson Lumber Company, Libby, Montana with 40 CFR 50.6, National Ambient Air Quality Standards for Particulate Matter and ARM 16.8.821, Montana Ambient Air Quality Standard for PM-10

STIPULATION

The Department of Health and Environmental Sciences ("Department") and Stimson Lumber Company ("Stimson") hereby stipulate and agree to all the following paragraphs and exhibits inclusive in regard to the above-captioned matter and present the same for consideration and adoption by the Board of Health and Environmental Sciences ("Board"):

A. BACKGROUND

- 1. On July 1, 1987, the United States Environmental Protection Agency ("EPA") promulgated national ambient air quality standards for particulate matter (measured in the ambient air as PM-10, or particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers). The annual standard for particulate matter (PM-10) of 50 micrograms per cubic meter (annual arithmetic mean), and the 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration) were promulgated by EPA pursuant to Section 109 of the Federal Clean Air Act, 42 U.S.C. 7401, et seq., as amended by the Clean Air Act Amendments of 1990 ("Act").
- 2. Section 110 of the Act requires each state to submit an implementation plan for control of each air pollutant for which a national ambient air quality standard has been promulgated. Since a standard has been promulgated for particulate matter, the State of Montana is required to submit an implementation plan for particulate matter to EPA.
- 3. Section 75-2-202, MCA, requires the Board to establish ambient air quality standards for the State. Sections 75-2-111(3) and 75-2-401, MCA, empower the Board to issue orders upon a hearing before the Board concerning compliance with national and state ambient air quality standards.
- 4. On April 29, 1988, the Board adopted state ambient air quality standards for PM-10, including an annual standard of 50 micrograms per cubic meter (annual arithmetic mean) and a 24-hour standard of 150 micrograms per cubic meter (24-hour average concentration). ARM 16.8.821 (PM-10 MAAQS).

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- 5. Pursuant to the 1990 Federal Clean Air Act Amendments, Libby was designated to nonattainment for PM-10 by operation of law. 42 U.S.C. 7407(d)(4)(8), as amended. Further, the Act designated the Libby area as a "moderate" PM-10 nonattainment area. 42 U.S.C. 7513(a), as amended. For areas designated as moderate, the State was required to submit to EPA an implementation plan no later than one year from enactment of the 1990 amendments. 42 U.S.C. 7513a(a)(2). The area encompassed in the moderate nonattainment designation (hereafter "Libby nonattainment area") generally includes the City of Libby and that portion of Lincoln County within the vicin ty of the boundaries of the City of Libby. A map of the Libby nonattainment area is attached to the stipulation as Exhibit A and by this reference is incorporated herein in its entirety as part of this document.
- 6. Results of air quality sampling and monitoring from 1986 through 1991 have demonstrated violations within the Libby nonattainment area of the 24-hour and annual standards contained in both the PM-10 NAAQS and the PM-10 MAAQS.
- 7. On November 25, 1991 Governor Stephens submitted to EPA an implementation plan for Libby, Montana demonstrating attainment of the PM-10 NAAOS. The implementation plan relied upon receptor modeling known as chemical mass balance (CMB) to identify the major emission sources contributing to noncompliance. The implementation plan consisted of an emission control plan that controlled fugitive dust emissions from roadways, emissions from residential woodburning, and industrial emissions from then Champion International (the predecessor to Stimson Lymber Company).
- 8. On October 7, 1992, EPA conditionally approved the Libby implementation plan pending fulfillment of certain commitments, including a contingency plan, in the event of continued PM-10 nonattainment. Governor Racicot submitted the contingency plan on May 24, 1993. EPA subsequently notified the Department of deficiencies in the plan on May 27, 1994.
- 9. This stipulation is necessary to ensure a contingency plan which will effectively reduce PM-10 emissions in the event of continued PM-10 nonattainment and which will be approvable by EPA. It does so by including additional reductions in emissions from Stimson Lumber Company. The Department and Stimson agree to the additional fugitive dust controls set forth in Exhibit B.

B. BINDING EFFECT

- 10. The parties to this stipulation agree that additional emission control measures imposed on Stimson must be enforceable by both the Department and EPA. To this end, the controls constituting the Stimson contingency measures have been negotiated between the parties. The specific contingency measures are contained in Exhibit B to this stipulation which is attached hereto and by this reference is incorporated herein in its entirety as part of this document.
- 11. Both parties understand and agree that if the Department and EPA determine that Libby has failed to attain or to maintain the PM-10 standards, and if

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Subject: Lincoln County Air Quality Control Program

Stimson is found to be a significant contributor to such nonattainment, this contingency plan shall go into effect automatically within 60 days after notification and without further rulemaking action.

- 12. The Department is the state agency that is primarily responsible for the development and implementation of the State Implementation Plan under the Federal Clean Air Act. Section 75-2-112(2)(c), MCA. Under Sections 75-2-101, MCA, gt seg., the Board is required to protect public health and welfare by limiting the levels and concentrations of air pollutants within the state. Such responsibility includes the adoption of emission standards (Section 75-2-203, MCA) and the issuance of orders (Sections 75-2-111(3), 75-2-401, MCA) to effectuate compliance with national and state ambient air quality standards.
- 13. The conditions and limitations contained in Exhibit B to this stipulation are consistent with the provisions of the Montana Clean Air Act, Title 75, Chapter 2, MCA, and rules promulgated pursuant to that Act.
- 14. Any obligations in this stipulation and attached Exhibit B that are more stringent than conditions set forth in an air quality permit issued to Stimson supersede the less stringent permit conditions.
- 15. Accordingly, the parties to this stipulation agree that it would be consistent with the intent of this stipulation for the Board to issue an Order imposing the contingency plan contained in Exhibit B of this stipulation and adopting the same as enforceable measures applicable to Stimson.

BY Sist & Schrick Its: GRE PRESIDENT-IMAMO PPER.	MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES BY Addition Robert J. Robinson Director
Attorner for Symina	James Madden Attorney
BY	BY

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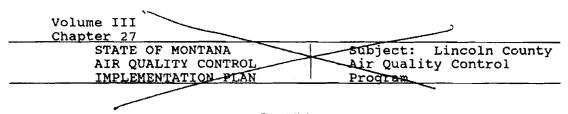
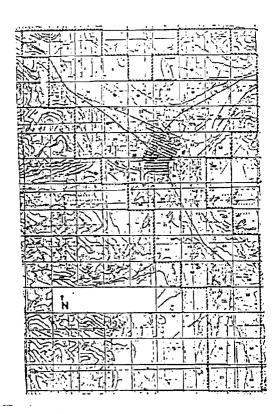
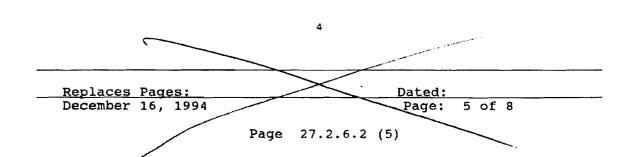


EXHIBIT A

Libby Nonattainment Area





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> STATE OF MONTANA AIR QUALITY CONTROL IMPLEMENTATION PLAN

Subject: Lincoln County Air Quality Control Program

EXHIBIT B

Existing Stimson Lumber Company Fugitive Dust Controls and Additional Contingency Measures

Existing Permit Language

- 1. Chemical dust suppressant shall be applied to the major haul routes throughout the plant to control fugitive dust from haul trucks. The chemical dust suppressant shall be applied as necessary to maintain compliance with the 20% opacity limitation but shall be applied not less than once per calendar year. Opacity determinations shall be made in compliance with the requirements of EPA Method 9 (40 CFR Part 60, Appendix A) and must be determined at one point on the roadway for these sources.
- 2. Chemical dust suppressant shall be applied to the major roads on the log yard to control fugitive dust from all log handling equipment. The chemical dust suppressant shall be applied as necessary to maintain compliance with the 20% opacity limitation but shall be applied not less than once per calendar year. Water sprays shall be used as necessary to control dust emissions on active areas of the log yard. Opacity determinations shall be made in compliance with the requirements of EPA Method 9 (40 CFR Part 60, Appendix A and must be determined at one point on the roadway for these sources.

Addition of Fugitive Dust Contingency Measures

- Upon notification by the Department that Libby has failed to attain or to maintain the NAAQS for PM-10 and that the Stimson Lumber Co. has been found to be a significant contributor to nonattainment, the following measures will become effective within 60 days and without further negotiation between the Montana Department of Health and Environmental Sciences and Stimson.
 - (A) The facility entrance and Plywood Plant access road shall be surfaced with either asphalt, concrete, or chip seal from Highwây 2 to the Plywood Plant. Sweeping and flushing shall be conducted, as necessary, to inaintain compliance with a 5% opacity limitation but shall be conducted not less than twice annually, with one application during the months of April-June and one application during the months September-

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November,1,2

- (B) The chip sealed portions of the Plywood Plant access road shall consist of a double layer of oil base and chips. They shall be watered, as necessary, to maintain compliance with a 5% opacity limitation. They shall also be maintained to avoid deterioration by evaluating the chip seal for cracking at a minimum of every 2 years, and by applying a crack sealer (e.g., rubberized asphalt) as needed. A thorough evaluation and assessment of the need to reseal the roadway shall be conducted no less than every 5 years.
- (C) Chemical dust suppressant shall be applied to all remaining active, unpaved areas within the facility. The chemical dust suppressant shall be applied as necessary to maintain compliance with the 5% opacity limitation but shall be applied not less than twice annually, with one application during the months of April-June and one application during the months September-November.
- (D) The facility shall maintain a written record of all implemented contingency measures which shall be made available to the Department upon request.

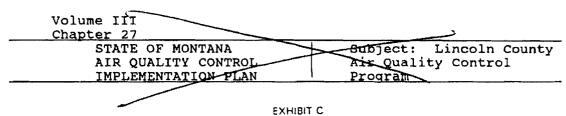
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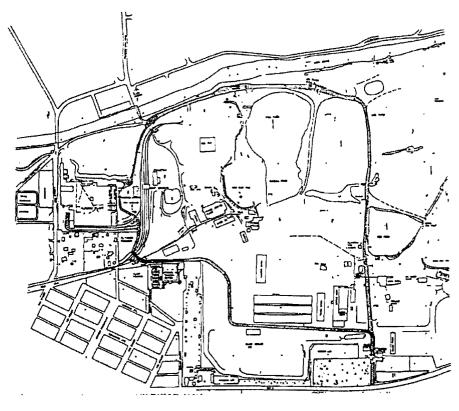
Opacity shall be determined according to 40 CFR, Part 60, Appendix A, Method 9, Visual Determination of Opacity of Emissions from Stationary Sources.

² Sweeping and flushing shall not be required on chip sealed portions of the Plywood Plant access road since this practice would degrade the road surface.



-- Lumber Company

Stimson Lumber Company Facility Map



- CHIP STAL

