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

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|---|---|
| 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 PM-10 | STIPULATION |

The Department of Health and Environmental Sciences ("Department"), and Equity Supply Company ("Equity Supply"), 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"):

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

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 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 U.S.C. 7513(a), as amended. For areas designated as "moderate", the state was required to submit to EPA an implementa-

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

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

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.

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

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, 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 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 Equity Supply.

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.

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 Equity Supply.

| EQUITY SUPPLY COMPANY | MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES |
|---|---|
| BY _____ | BY _____ Robert J. Robinson, Director |
| BY _____ Attorney | BY _____ Timothy R. Baker, Attorney |
| DATE 9-13-93 | DATE 9/15/93 |

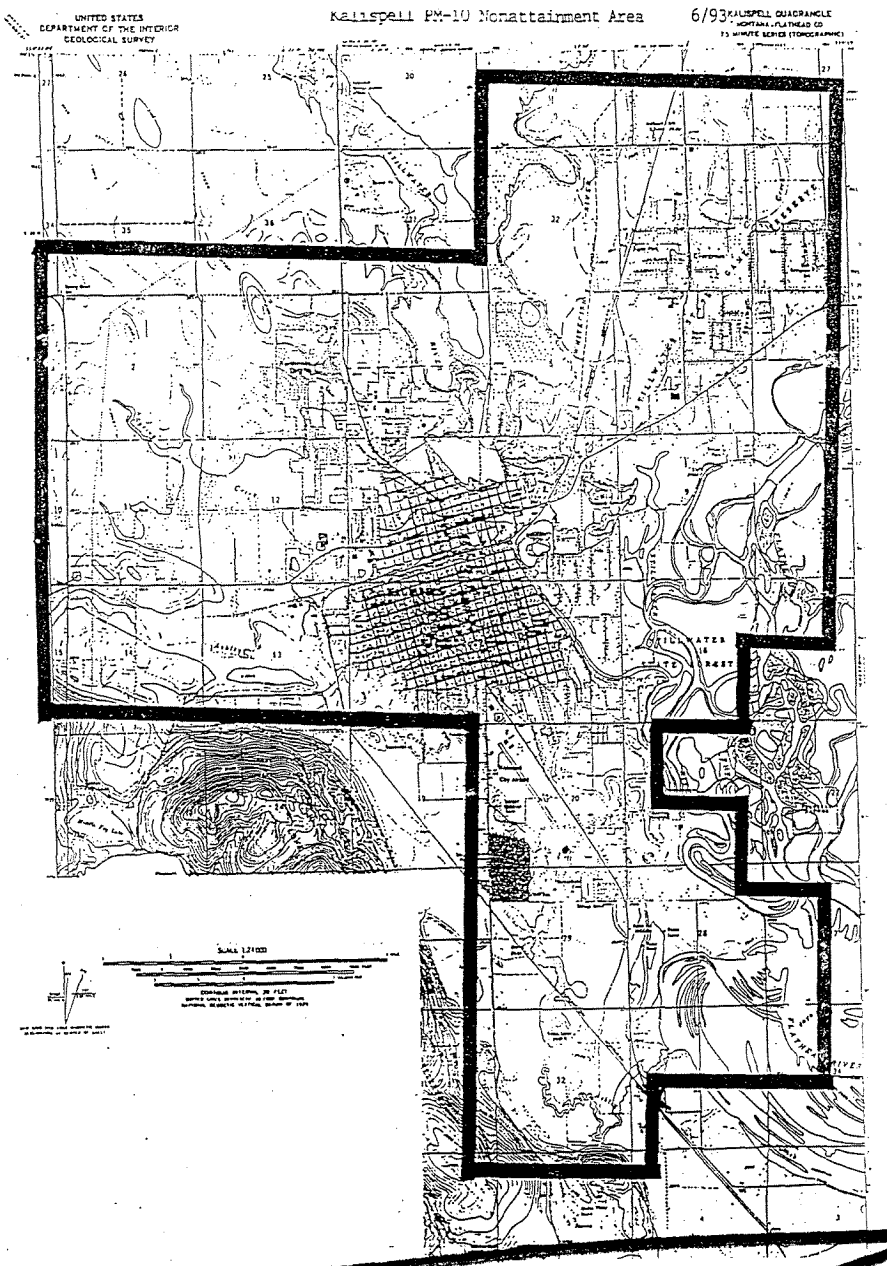
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Kalispell PM-10 Nonattainment Area
6/93
KALISPELL QUADRANGLE
MONTANA-FLATHEAD CO
7.5 MINUTE SERIES (TOPOGRAPHIC)

EXHIBIT B
EMISSION LIMITATIONS AND CONDITIONS

Equity Supply Company
P.O. Box 579
Kalispell, MT 59901

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

SECTION I: Affected Facilities

A. Plant Location:

1. 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)

2. 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:

Equity #1 - Feed Mill and Seed Cleaning Plant

| | Process/Equipment | Maximum 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) w/telescoping chute |
| 3. | Natural Gas Boiler/York Shipley | 7.7 MMBTU/hr | None |
| 4. | Grain Drying/Shanzer Model M20 | 11 tons/hr | Stationary chute/closed |
| 5. | Grain Cleaning | 8 tons/hr | Cyclone (3690 cfm) |
| 6. | Grain Milling | | |
| | - Roller mill Memco 18" x 30" | 5 tons/hr | Cyclone (1500 cfm) |
| | - Hammer mill Prater Blue Streak 6AL | 6 tons/hr | Cyclone (1000 cfm) |
| 7. | Pellet Cooler/California Pellet Mill | 4 tons/hr | Cyclone (1000 cfm) |
| 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/Hume Model 2110 | 20 tons/hr | Stationary chute |
| 3. | Bulk Loading (Grain Shipping) | 90 tons/hr | Telescoping chute |
| 4. | Bulk Unloading (Fertilizer) | 30 tons/hr | Stationary chute/closed system |
| 5. | Bulk Loading (Fertilizer) | 15 tons/hr | Stationary chute with dust sock |

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SECTION II: Limitations and Conditions

A. Emission Limitations and Conditions:

1. 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 an opacity of twenty percent[1] (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)

2. 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[1] (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[1] (5%) or greater averaged over six (6) consecutive minutes. This applies to fugitive emissions from any hauling, handling, loading, and unloading operation. (RACT)

4. Equity Supply shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 5% opacity[1] limitation.

5. 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 shall be limited to 24 hours per day and 4000 hours per year.

7. The hours of operation of the feed mill, seed cleaning plant and grain dryer (Equity #1) shall be limited to 4000 hours per year.

8. The hours of operation of the grain and fertilizer elevator (Equity #2) shall be limited to 16 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.

[1] 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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9. 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 the 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.<br>- Total hours of unloading operation. |
| 2. | Bulk Unloading (Seed) | - Tons of seed grain received.<br>- 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. | Pellet Cooler | - Total hours of pellet cooler operation. |
| 8. | Bulk Loading (Grain) | - Tons of grain shipped.<br>- Total hours of loading operation. |
| 9. | Bulk Loading (Feed) | - Tons of feed shipped.<br>- Total hours of loading operation. |

Equity #2

| | | |
|---|---|---|
| 1. | Bulk Unloading (Grain) | - Tons of grain received.<br>- Total hours of unloading operation. |
| 2. | Grain Drying | - Total hours of drying operation. |
| 3. | Truck Bulk Loading (Grain) | - Tons of grain shipped.<br>- Total hours of loading operation. |
| 4. | Rail Bulk Loading (Grain) | - Tons of grain shipped.<br>- Total hours of loading operation. |
| 5. | Bulk Unloading (Fertilizer) | - Tons of fertilizer received.<br>- Total hours of unloading operation. |
| 6. | Bulk Loading (Fertilizer) | - Tons of grain shipped.<br>- Total hours of loading operation. |

b. Daily

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

   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.

2. 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.

3. Equity Supply shall keep these records as permanent business records for a minimum of five (5) years.

4. Equity Supply shall provide an annual report identifying any days in which the limitations in Section I.A.6, 7 and 8 are exceeded. The report shall be submitted by March 1 of each year.

C. 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 stipulation at the Kalispell Equity Supply main office and make that copy available for inspection by department personnel upon request.

E. Equity Supply 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

Equity Supply Company

I. 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 Kalispell, 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 Memco 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 fertilizer. 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. 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 Bobcat, put in a scale, transferred by conveyor to the blender, re-elevated and gravity fed into the truck or trailer. The fertilizer is loaded through a stationary chute with a sock to reduce particulate 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 PM-10 in the ambient air not exceed the set standards. (See Section V)

B. ARM 16.8, Subchapter 14, Emission Standards, including but not limited to:

1. 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 haul roads will satisfy these requirements.

2. 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 prior 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 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. Process Particulate Stack Emissions

A cyclone would provide the reasonable level of particulate 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 measures constitute 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.

IV. Emissions Inventory

Total Facility Emissions

Annual Emission Rates (Allowable)

| Source | TSP | PM-10 | NOx | VOC | CO | SOx |
|---|---|---|---|---|---|---|
| | | | tons/year | | | |
| Equity #1(4000 hrs/yr) | 294.14 | 77.18 | 3.38 | 0.27 | 0.68 | 0.02 |
| Equity #2(3200 hrs/yr) | 336.68 | 85.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Emissions | 630.82 | 162.24 | 3.38 | 0.27 | 0.68 | 0.02 |

Daily Emission Rates (Allowable)

| Source | TSP | PM-10 | NOx | VOC | CO | SOx |
|---|---|---|---|---|---|---|
| | | | lbs/day | | | |
| Equity #1 | 2970.07 | 774.51 | 18.49 | 1.48 | 3.70 | 0.11 |
| Equity #2 | 3478.80 | 868.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Emissions | 6448.87 | 1642.71 | 18.49 | 1.48 | 3.70 | 0.11 |

Equity #1
Feed Mill and Seed Cleaning Plant

Annual Emission Rates (Allowable) *

| Source | TSP | PM-10 | NOx | VOC | CO | SOx |
|---|---|---|---|---|---|---|
| | | | tons/year | | | |
| Bulk Unloading (Grain Receiving) | 72.00 | 36.00 | | | | |
| Bulk Unloading (Seed Grain) | 12.00 | 6.00 | | | | |
| Natural Gas Boiler | 0.47 | 0.47 | 3.38 | 0.27 | 0.68 | 0.02 |
| Grain Drying | 15.40 | 2.42 | | | | |
| Grain Cleaning | 5.40 | 0.81 | | | | |
| Grain Milling | 0.46 | 0.23 | | | | |
| Pellet Coolers | 0.16 | 0.08 | | | | |
| Elevator Legs (Headhouse) | 180.00 | 27.60 | | | | |
| Bulk Loading (Grain Shipping) | 7.50 | 3.25 | | | | |
| Bulk Loading (Feed Shipping) | 0.75 | 0.33 | | | | |
| Total Emissions | 294.14 | 77.18 | 3.38 | 0.27 | 0.68 | 0.02 |

* Based on operating 4000 hours/year.

Daily Emission Rates (Allowable) **

| Source | TSP | PM-10 | NOx | VOC | CO | SOx |
|---|---|---|---|---|---|---|
| | | | lbs/day | | | |
| Bulk Unloading (Grain Receiving) | 720.00 | 360.00 | | | | |
| Bulk Unloading (Seed Grain) | 120.00 | 60.00 | | | | |
| Natural Gas Boiler | 2.55 | 2.55 | 18.49 | 1.48 | 3.70 | 0.11 |
| Grain Drying | 184.80 | 29.00 | | | | |
| Grain Cleaning | 54.00 | 8.10 | | | | |
| Grain Milling | 4.62 | 2.31 | | | | |
| Pellet Coolers | 1.60 | 0.80 | | | | |
| Elevator Legs (Headhouse) | 1800.00 | 276.00 | | | | |
| Bulk Loading (Grain Shipping) | 75.00 | 32.50 | | | | |
| Bulk Loading (Feed Shipping) | 7.50 | 3.25 | | | | |
| Total Emissions | 2970.07 | 774.51 | 18.49 | 1.48 | 3.70 | 0.11 |

** Based on all processes except grain dryer operating 20 hours/day.
Based on grain dryer operating 24 hours/day.

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Bulk Unloading (Grain Receiving)

Process Rate: 60 tons/hr
Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Factor: 0.6 lbs/ton (AFSSCC 3-02-006-05, page 80)
Control Efficiency: 0%
Calculations: 0.60 lbs/ton * 60.00 tons/hr = 36.00 lbs/hr
36.00 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 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

PM-10 Emissions:

Emission Factor: 0.3 lbs/ton (AFSSCC 3-02-006-05, page 80)
Control Efficiency: 0%
Calculations: 0.300 lbs/ton * 60.00 tons/hr = 18.00 lbs/hr
18.00 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 36.00 tons/yr
36.00 tons/yr * (1.00 - 0.000) = 36.00 tons/yr
18.00 lbs/hr * 20 hrs/day * (1.00 - 0.00) = 360.00 lbs/day

Bulk Unloading (Seed Grain)

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

TSP Emissions:

Emission Factor: 0.6 lbs/ton (AFSSCC 3-02-006-05, page 80)
Control Efficiency: 0% (Transfer cyclone)
Calculations: 0.60 lbs/ton * 10.00 tons/hr = 6.00 lbs/hr
6.00 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 12.00 tons/yr
12.00 tons/yr * (1.00 - 0.000) = 12.00 tons/yr
6.00 lbs/hr * 20 hrs/day * (1.00 - 0.00) = 120.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.3 lbs/ton (AFSSCC 3-02-006-05, page 80)
Control Efficiency: 0% (Transfer cyclone)
Calculations: 0.300 lbs/ton * 10.00 tons/hr = 3.00 lbs/hr
3.00 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 6.00 tons/yr
6.00 tons/yr * (1.00 - 0.000) = 6.00 tons/yr
3.00 lbs/hr * 20 hrs/day * (1.00 - 0.00) = 60.00 lbs/day

Natural Gas Boiler

TSP Emissions:

Emission Factor: 13.8 lbs/10^6 ft^3 gas (AP-42, 1.4-1)
Control Efficiency: 0%
Fuel Consumption: 67.50 10^6 ft^3/yr (Information from company)
Calculations: 67.50 * 10^6 ft^3/yr * 14 lbs/10^6 ft^3 gas * 0.0005 tons/lb = 0.47 tons/yr

PM-10 Emissions:

Emission Factor: 13.8 lbs/10^6 ft^3 gas (AP-42, 1.4-1)
Control Efficiency: 0%
Fuel Consumption: 67.50 10^6 ft^3/yr (Information from company)
Calculations: 67.50 * 10^6 ft^3/yr * 14 lbs/10^6 ft^3 gas * 0.0005 tons/lb = 0.47 tons/yr

NOx Emissions:

Emission Factor: 100 lbs/10^6 ft^3 gas (AP-42, 1.4-1)
Control Efficiency: 0%
Fuel Consumption: 67.50 10^6 ft^3/yr (Information from company)
Calculations: 67.50 * 10^6 ft^3/yr * 100 lbs/10^6 ft^3 gas * 0.0005 tons/lb = 3.38 tons/yr

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VOC Emissions:

Emission Factor: 8 lbs/10^6 ft^3 gas (AP-42, 1.4-1)
Control Efficiency: 0%
Fuel Consumption: 67.50 10^6 ft^3/yr (Information from company)
Calculations: 67.50 * 10^6 ft^3/yr * 8 lbs/10^6 ft^3 gas * 0.0005 tons/lb = 0.27 tons/yr

CO Emissions:

Emission Factor: 20 lbs/10^6 ft^3 gas (AP-42, 1.4-1)
Control Efficiency: 0%
Fuel Consumption: 67.50 10^6 ft^3/yr (Information from company)
Calculations: 67.50 * 10^6 ft^3/yr * 20 lbs/10^6 ft^3 gas * 0.0005 tons/lb = 0.68 tons/yr

SOx Emissions:

Emission Factor: 0.6 lbs/10^6 ft^3 gas (AP-42, 1.4-1)
Control Efficiency: 0%
Fuel Consumption: 67.50 10^6 ft^3/yr (Information from company)
Calculations: 67.50 * 10^6 ft^3/yr * 0.6 lbs/10^6 ft^3 gas * 0.0005 tons/lb = 0.02 tons/yr

Grain Drying

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

TSP Emissions:

Emission Factor: 0.7 lbs/ton (AFSSCC 3-02-006-04, page 80)
Control Efficiency: 0%
Calculations: 0.70 lbs/ton * 11.00 tons/hr = 7.70 lbs/hr
7.70 lbs/hr * 4000 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 * 24 hrs/day * (1.00 - 0.00) = 184.80 lbs/day

PM-10 Emissions:

Emission Factor: 0.11 lbs/ton (AFSSCC 3-02-006-04, page 80)
Control Efficiency: 0%
Calculations: 0.110 lbs/ton * 11.00 tons/hr = 1.21 lbs/hr
1.21 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 2.42 tons/yr
2.42 tons/yr * (1.00 - 0.000) = 2.42 tons/yr
1.21 lbs/hr * 24 hrs/day * (1.00 - 0.00) = 29.04 lbs/day

Grain Cleaning

Process Rate: 9.00 tons/hr
Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Factor: 3 lbs/ton (AFSSCC 3-02-006-03, page 80)
Control Efficiency: 90% (Cyclone)
Calculations: 9.00 tons/hr * 3.00 lbs/ton = 27.00 lbs/hr
27.00 lbs/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 lbs/hr * 20 hrs/day * (1.00 - 0.90) = 54.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.45 lbs/ton (AFSSCC 3-02-006-03, page 80)
Control Efficiency: 90% (Cyclone)
Calculations: 9.00 tons/hr * 0.45 lbs/ton = 4.05 lbs/hr
4.05 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 8.10 tons/yr
8.10 tons/yr * (1.00 - 0.900) = 0.81 tons/yr
4.05 lbs/hr * 20 hrs/day * (1.00 - 0.90) = 8.10 lbs/day

Grain Milling

Process Rate: 11.00 tons/hr
Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Factor: 0.21 lbs/ton (AFSSCC 3-02-008-015, page 84)
Control Efficiency: 90% (Cyclone)
Calculations: 0.21 lbs/ton * 11.00 tons/hr = 2.31 lbs/hr
2.31 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 4.62 tons/yr
4.62 tons/yr * (1.00 - 0.90) = 0.46 tons/yr
2.31 lbs/hr * 20 hrs/day * (1.00 - 0.90) = 4.62 lbs/day

PM-10 Emissions:

Emission Factor: 0.105 lbs/ton (AFSSCC 3-02-008-015, page 84) (Assumes 50% of TSP)
Control Efficiency: 90% (Cyclone)
Calculations: 0.105 lbs/ton * 11.00 tons/hr = 1.16 lbs/hr
1.16 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 2.31 tons/yr
2.31 tons/yr * (1.00 - 0.900) = 0.23 tons/yr
1.16 lbs/hr * 20 hrs/day * (1.00 - 0.90) = 2.31 lbs/day

Pellet Coolers

Process Rate: 4.00 tons/hr
Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Factor: 0.2 lbs/ton (AFSSCC 3-02-008-16, page 84)
Control Efficiency: 90% (Cyclone)
Calculations: 0.20 lbs/ton * 4.00 tons/hr = 0.80 lbs/hr
0.80 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 1.60 tons/yr
1.60 tons/yr * (1.00 - 0.90) = 0.16 tons/yr
0.80 lbs/hr * 20 hrs/day * (1.00 - 0.90) = 1.60 lbs/day

PM-10 Emissions:

Emission Factor: 0.1 lbs/ton (AFSSCC 3-02-008-16, page 84) (Assumes 50% of TSP)
Control Efficiency: 90% (Cyclone)
Calculations: 0.100 lbs/ton * 4.00 tons/hr = 0.40 lbs/hr
0.40 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 0.80 tons/yr
0.80 tons/yr * (1.00 - 0.90) = 0.08 tons/yr
0.40 lbs/hr * 20 hrs/day * (1.00 - 0.90) = 0.80 lbs/day

Elevator Legs (Headhouse)

Process Rate: 60.00 tons/hr
Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Factor: 1.5 lbs/ton (AFSSCC 3-02-006-08, page 80)
Control Efficiency: 0%
Calculations: 1.50 lbs/ton * 60.00 tons/hr = 90.00 lbs/hr
90.00 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 180.00 tons/yr
180.00 tons/yr * (1.00 - 0.00) = 180.00 tons/yr
90.00 lbs/hr * 20 hrs/day * (1.00 - 0.00) = 1800.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.23 lbs/ton (AFSSCC 3-02-006-08, page 80)
Control Efficiency: 0%
Calculations: 0.230 lbs/ton * 60.00 tons/hr = 13.80 lbs/hr
13.80 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 27.60 tons/yr
27.60 tons/yr * (1.00 - 0.00) = 27.60 tons/yr
13.80 lbs/hr * 20 hrs/day * (1.00 - 0.00) = 276.00 lbs/day

Final Stipulation: 9/17/93

Bulk Loading (Grain Shipping)

Process Rate: 50.00 tons/hr
Hours of operation: 4000 hr/yr 20 hrs/day

TSP Emissions:

Emission Factor: 0.30 lbs/ton (AFSSCC 3-02-006-06, page 80)
Control Efficiency: 75% (Telescoping chute)
Calculations: 0.30 lbs/ton * 50.00 tons/hr = 15.00 lbs/hr
15.00 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 30.00 tons/yr
30.00 tons/yr * (1.00 - 0.75) = 7.50 tons/yr
15.00 lbs/hr * 20 hrs/day * (1.00 - 0.75) = 75.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.13 lbs/ton (AFSSCC 3-02-006-06, page 80)
Control Efficiency: 75% (Telescoping chute)
Calculations: 0.13 lbs/ton * 50.00 tons/hr = 6.50 lbs/hr
6.50 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 13.00 tons/yr
13.00 tons/yr * (1.00 - 0.75) = 3.25 tons/yr
6.50 lbs/hr * 20 hrs/day * (1.00 - 0.75) = 32.50 lbs/day

Bulk Loading (Feed Shipping)

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

TSP Emissions:

Emission Factor: 0.30 lbs/ton (AFSSCC 3-02-006-06, page 80)
Control Efficiency: 75% (Telescoping chute)
Calculations: 0.30 lbs/ton * 5.00 tons/hr = 1.50 lbs/hr
1.50 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 3.00 tons/yr
3.00 tons/yr * (1.00 - 0.75) = 0.75 tons/yr
1.50 lbs/hr * 20 hrs/day * (1.00 - 0.75) = 7.50 lbs/day

PM-10 Emissions:

Emission Factor: 0.13 lbs/ton (AFSSCC 3-02-006-06, page 80)
Control Efficiency: 75% (Telescoping chute)
Calculations: 0.13 lbs/ton * 5.00 tons/hr = 0.65 lbs/hr
0.65 lbs/hr * 4000 hr/yr * 0.0005 tons/lb = 1.30 tons/yr
1.30 tons/yr * (1.00 - 0.75) = 0.33 tons/yr
0.65 lbs/hr * 20 hrs/day * (1.00 - 0.75) = 3.25 lbs/day

Equity #2
Grain and Fertilizer Elevator

Annual Emission Rates (Allowable) +

| Source | TSP | PM-10 | NOX | VOC | CO | SOX |
|---|---|---|---|---|---|---|
| | Tons/Year | | | | | |
| Bulk Unloading (Grain Receiving) | 86.40 | 43.20 | | | | |
| Grain Drying | 22.40 | 3.52 | | | | |
| Elevator Legs (Headhouse) | 216.00 | 33.12 | | | | |
| Bulk Loading (Grain Shipping) | 10.80 | 4.68 | | | | |
| Bulk Unloading (Fertilizer) | 0.96 | 0.48 | | | | |
| Bulk Loading (Fertilizer) | 0.12 | 0.06 | | | | |
| Total Emissions | 336.68 | 85.06 | 0.00 | 0.00 | 0.00 | 0.00 |

+ Based on operating 3200 hours/year.

Final Stipulation: 9/17/93

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Daily Emission Rates (Allowable) ++

| Source | TSP | PM-10 | NOX | VOC | CO | SOX |
|---|---|---|---|---|---|---|
| | lbs/day | | | | | |
| Bulk Unloading (Grain Receiving) | 864.00 | 432.00 | | | | |
| Grain Drying | 336.00 | 52.80 | | | | |
| Elevator Legs (Headhouse) | 2160.00 | 331.20 | | | | |
| Bulk Loading (Grain Shipping) | 108.00 | 46.80 | | | | |
| Bulk Unloading (Fertilizer) | 9.60 | 4.80 | | | | |
| Bulk Loading (Fertilizer) | 1.20 | 0.60 | | | | |
| Total Emissions | 3478.80 | 868.20 | 0.00 | 0.00 | 0.00 | 0.00 |

++ Based on operating all processes except grain drying 16 hours/day.
Based on operating grain drying 24 hours/day.

Bulk Unloading (Grain Receiving)

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

TSP Emissions:

Emission Factor: 0.6 lbs/ton (AFSSCC 3-02-006-05, page 80)
Control Efficiency: 0%
Calculations: 0.60 lbs/ton * 90.00 tons/hr = 54.00 lbs/hr
54.00 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 86.40 tons/yr
86.40 tons/yr * (1.00 - 0.000) = 86.40 tons/yr
54.00 lbs/hr * 16 hrs/day * (1.00 - 0.00) = 864.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.3 lbs/ton (AFSSCC 3-02-006-05, page 80)
Control Efficiency: 0%
Calculations: 0.300 lbs/ton * 90.00 tons/hr = 27.00 lbs/hr
27.00 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 43.20 tons/yr
43.20 tons/yr * (1.00 - 0.000) = 43.20 tons/yr
27.00 lbs/hr * 16 hrs/day * (1.00 - 0.00) = 432.00 lbs/day

Grain Drying

Process Rate: 20 tons/hr
Hours of operation: 3200 hr/yr 24 hrs/day

TSP Emissions:

Emission Factor: 0.7 lbs/ton (AFSSCC 3-02-006-04, page 80)
Control Efficiency: 0%
Calculations: 20.00 tons/hr * 0.70 lbs/ton = 14.00 lbs/hr
14.00 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 22.40 tons/yr
22.40 tons/yr * (1.00 - 0.000) = 22.40 tons/yr
14.00 lbs/hr * 24 hrs/day * (1.00 - 0.00) = 336.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.11 lbs/ton (AFSSCC 3-02-006-04, page 80)
Control Efficiency: 0%
Calculations: 20.00 tons/hr * 0.11 lbs/ton = 2.20 lbs/hr
2.20 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 3.52 tons/yr
3.52 tons/yr * (1.00 - 0.000) = 3.52 tons/yr
2.20 lbs/hr * 24 hrs/day * (1.00 - 0.00) = 52.80 lbs/day

Elevator Legs (Headhouse)

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

TSP Emissions:

Emission Factor: 1.5 lbs/ton (AFSSCC 3-02-006-08, page 80)
Control Efficiency: 0%
Calculations: 90.00 tons/hr * 1.50 lbs/ton = 135.00 lbs/hr
135.00 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 216.00 tons/yr
216.00 tons/yr * (1.00 - 0.000) = 216.00 tons/yr
135.00 lbs/hr * 16 hrs/day * (1.00 - 0.00) = 2160.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.23 lbs/ton (AFSSCC 3-02-006-08, page 80)
Control Efficiency: 0%
Calculations: 90.00 tons/hr * 0.23 lbs/ton = 20.70 lbs/hr
20.70 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 33.12 tons/yr
33.12 tons/yr * (1.00 - 0.000) = 33.12 tons/yr
20.70 lbs/hr * 16 hrs/day * (1.00 - 0.00) = 331.20 lbs/day

Bulk Loading (Grain Shipping)

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

TSP Emissions:

Emission Factor: 0.3 lbs/ton (AFSSCC 3-02-006-06, page 80)
Control Efficiency: 75% (Telescoping chute)
Calculations: 0.30 lbs/ton * 90.00 tons/hr = 27.00 lbs/hr
27.00 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 43.20 tons/yr
43.20 tons/yr * (1.00 - 0.75) = 10.80 tons/yr
27.00 lbs/hr * 16 hrs/day * (1.00 - 0.75) = 108.00 lbs/day

PM-10 Emissions:

Emission Factor: 0.13 lbs/ton (AFSSCC 3-02-006-06, page 80)
Control Efficiency: 75% (Telescoping chute)
Calculations: 0.130 lbs/ton * 90.00 tons/hr = 11.70 lbs/hr
11.70 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 18.72 tons/yr
18.72 tons/yr * (1.00 - 0.75) = 4.68 tons/yr
11.70 lbs/hr * 16 hrs/day * (1.00 - 0.75) = 46.80 lbs/day

Bulk Unloading (Fertilizer)

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

TSP Emissions:

Emission Factor: 0.02 lbs/ton (AFSSCC 3-01-027-09, page 48)
Control Efficiency: 0%
Calculations: 0.02 lbs/ton * 30.00 tons/hr = 0.60 lbs/hr
0.60 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 0.96 tons/yr
0.96 tons/yr * (1.00 - 0.000) = 0.96 tons/yr
0.60 lbs/hr * 16 hrs/day * (1.00 - 0.00) = 9.60 lbs/day

PM-10 Emissions:

Emission Factor: 0.01 lbs/ton (AFSSCC 3-01-027-09, page 48)
Control Efficiency: 0%
Calculations: 0.010 lbs/ton * 30.00 tons/hr = 0.30 lbs/hr
0.30 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 0.48 tons/yr
0.48 tons/yr * (1.00 - 0.000) = 0.48 tons/yr
0.30 lbs/hr * 16 hrs/day * (1.00 - 0.00) = 4.80 lbs/day

Bulk Loading (Fertilizer)

Process Rate: 15.00 tons/hr
Hours of operation: 3200 hr/yr 16 hrs/day

TSP Emissions:

Emission Factor: 0.02 lbs/ton (AFSSCC 3-01-027-09, page 48)
Control Efficiency: 75% (Stationary chute with dust sock)
Calculations: 0.02 lbs/ton * 15.00 tons/hr = 0.30 lbs/hr
0.30 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 0.48 tons/yr
0.48 tons/yr * (1.00 - 0.750) = 0.12 tons/yr
0.30 lbs/hr * 16 hrs/day * (1.00 - 0.75) = 1.20 lbs/day

PM-10 Emissions:

Emission Factor: 0.01 lbs/ton (AFSSCC 3-01-027-09, page 48)
Control Efficiency: 75% (Stationary chute with dust sock)
Calculations: 0.010 lbs/ton * 15.00 tons/hr = 0.15 lbs/hr
0.15 lbs/hr * 3200 hr/yr * 0.0005 tons/lb = 0.24 tons/yr
0.24 tons/yr * (1.00 - 0.750) = 0.06 tons/yr
0.15 lbs/hr * 16 hrs/day * (1.00 - 0.75) = 0.60 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 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 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 NAAQS 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 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 Equity Supply 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, south to 704000mE, 5336000mN, west to 702000mE, 5336000mN, west to 702000mE, 5336000mN, south to 702000mE, 5335000mN, west to 700000mE, 5335000mN, north to 700000mE, 5340000mN, west to 695000mE, 5340000mN, north 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.

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

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

Description of Project: Equity Supply Company 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 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 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, 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 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, 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 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: August 4, 1993

Final Stipulation: 9/17/93

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Potential Impact on Physical Environment

| | | Major | Moderate | Minor | None | Unknown | Comments Attached |
|---|---|---|---|---|---|---|---|
| 1 | Terrestrial and Aquatic Life and Habitats | | | | X | | |
| 2 | Water Quality, Quantity and Distribution | | | | X | | |
| 3 | Geology and Soil Quality, Stability and Moisture | | | | X | | |
| 4 | Vegetation Cover, Quantity and Quality | | | | X | | |
| 5 | Aesthetics | | | | X | | |
| 6 | Air Quality | | | X | | | |
| 7 | Unique Endangered, Fragile or Limited Environmental Resource | | | | | X | |
| 8 | Demands on Environmental Resource of Water, Air and Energy | | | | X | | |
| 9 | Historical and Archaeological Sites | | | | | X | |
| 10 | Cumulative and Secondary Impacts | | | X | | | |

Potential Impact on Human Environment

| | | Major | Moderate | Minor | None | Unknown | Comments Attached |
|---|---|---|---|---|---|---|---|
| 1 | 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 | | | | X | | |
| 5 | Human Health | | | | X | | |
| 6 | Access to and Quality of Recreational and Wilderness Activities | | | | X | | |
| 7 | Quantity and Distribution of Employment | | | | X | | |
| 8 | Distribution of Population | | | | X | | |
| 9 | Demands for Government Services | | | | X | | |
| 10 | Industrial and Commercial Activity | | | | X | | |
| 11 | Locally Adopted Environmental Plans and Goals | | | X | | | |
| 12 | Cumulative and Secondary Impacts | | | | X | | |

Final Stipulation: 9/17/93

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