

## AIR QUALITY PERMIT

Issued to: Plum Creek Manufacturing, Inc.  
Columbia Falls Operations  
P. O. Box 160  
Columbia Falls, Montana 59912

Permit #2667-M  
Date of Final  
Modification: 1/24/92

### SECTION I: Permitted Facilities

An air quality permit is hereby granted to the above-named permittee, hereinafter referred to as recipient, pursuant to Sections 75-2-204 and 211, MCA, as amended, and Subchapter 11, PERMIT, CONSTRUCTION AND OPERATION OF AIR CONTAMINANT SOURCES, ARM 16.8.1113 as amended, for the entire mill site located at P. O. Box 160, Columbia Falls, MT, for the following:

A. MDF - face dryer, with a high efficiency cyclone control, and a design capacity of 45,000 lbs/hr of dry wood fiber, resin, and wax. The face dryer is heated with two Energex sanderdust burners with a combined capacity of 45 MMBtu/hr.

B. MDF - core dryer, with a high efficiency cyclone control, and a design capacity of 45,000 lbs/hr of dry wood fiber, resin and wax. The core dryer is heated with one Coen sanderdust burner with a capacity of 50 MMBtu/hr.

C. Two plywood veneer dryers, with a wet ESP control, and a combined design capacity of 20,000 square feet/hr of plywood on a 3/8" basis. The veneer dryers are heated with a Wellons unit which has a design capacity of 30 MMBtu/hr.

D. One wood-fired boiler, with a design input capacity of 192 million Btu/hr firing rate.

E. Wood waste cyclones and baghouses.

F. Fugitive dust from mill vehicles and log yard activity.

G. Two gas boilers with design capacities of 20,000 pounds per hour steam and 10,500 pounds per hour steam.

### SECTION II: Limitations and Conditions

#### A. MDF - Face Dryer

1. Face dryer emissions of total particulate shall be limited to the maximum allowable emission rate as determined by ARM 16.8.1403, Particulate Matter, Industrial Process, but in no case shall emissions of total particulate exceed 40.83 lbs/hr.
2. Face dryer emissions of PM-10 shall be limited to the maximum allowable emission rate as determined by ARM

16.8.1403, Particulate Matter, Industrial Process, but in no case shall emissions of PM-10 exceed 40.83 lbs/hr.

3. Visible emissions shall be limited to 20% opacity.
4. A source test shall be required to show compliance with Conditions A.1 and A.2 above every three years. The test methods shall conform to 40 CFR Part 51, Appendix M including back-half, for PM-10 and 40 CFR Part 60, Appendix A including back-half, for total particulate. Only a total particulate test is required if it is used as a surrogate for PM-10.

B. MDF - Core Dryer

1. Core dryer emissions of total particulate shall be limited to the maximum allowable emission rate as determined by ARM 16.8.1403, Particulate Matter, Industrial Process, but in no case shall emissions of total particulate exceed 40.92 lbs/hr.
2. Core dryer emissions of PM-10 shall be limited to the maximum allowable emission rate as determined by ARM 16.8.1403, Particulate Matter, Industrial Process, but in no case shall emissions of PM-10 exceed 40.92 lbs/hr.
3. Visible emissions shall be limited to 20% opacity.
4. A source test shall be required to show compliance with Conditions B.1 and B.2 above every three years. The test methods shall conform to 40 CFR Part 51, Appendix M including back-half, for PM-10 and 40 CFR Part 60, Appendix A including back-half, for total particulate. Only a total particulate test is required if it is used as a surrogate for PM-10.

C. Plywood Veneer Dryer

1. Plywood veneer dryer emissions shall be limited to 25.0 lbs/hr of PM-10, and 25.0 lbs/hr of total particulate.
2. Visible emissions shall be limited to 20% opacity.
3. A source test shall be required to show compliance with Condition C.1 above every three years. The test methods shall conform to 40 CFR Part 51, Appendix M including back-half, for PM-10 and 40 CFR Part 60, Appendix A including back-half, for total particulate. Only a total particulate test is required if the back half is included and it is used as a surrogate for PM-10.

D. Wood-Fired Boiler

1. Boiler emissions shall be limited to 0.30 lbs of total particulate per million Btu fired, but in no case shall emissions exceed 57.6 pounds of total particulate per hour.
2. Boiler emissions shall be limited to 0.30 lbs of PM-10 per million Btu fired, but in no case shall emissions exceed 57.6 pounds of PM-10 per hour.
3. Visible emissions shall be limited to 20% opacity.
4. A minimum of two source tests shall be completed to show compliance with Conditions D.1 and D.2 above within the first two years. The test frequency shall be reviewed after two years and an appropriate schedule shall be determined. The test methods shall conform to 40 CFR Part 51, Appendix M including back-half, for PM-10 and 40 CFR Part 60, Appendix A including back-half, for total particulate. Only a total particulate test is required if it is used as a surrogate for PM-10. The source test results shall be converted to pounds of particulate per million BTUs through an F-factor calculation. A standard F-factor approved by the department shall be utilized by Plum Creek in the calculation. The department may require Plum Creek to verify the F-factor for their boiler using a procedure approved by the department.

E. Wood Waste Cyclones and Baghouses

1. Combined Sawmill and Planer Process

- a. This process includes the following emission points:

<u>Description</u>	<u>Flow (SCFM)</u>
Planer #3 Cyclone	24000
Planer #4 Cyclone	60000
Planer Shavings Bin Cyclone	6000
Planer Chip Bin Cyclone	6000
Sawmill chip bin cyclone	6000

- b. The combined sawmill and planer process shall be limited to a total of 2.5 lbs total particulate per thousand board feet (MBF), a maximum of 25.84 lbs/hr of total particulate, and a maximum of 12.92 lbs/hr of PM-10.
- c. Visible emissions from each of the emission points listed in (a) above shall be limited to 20% opacity as determined by 40 CFR 60 Appendix A, Method 9.
- d. Compliance with the above limitations shall be determined visually as described in (c) above. If a violation of the 20% opacity requirement is documented, or if the department has evidence that the emission limitations contained in (b) above are being exceeded,

the department may require source testing of any or all of the emission points listed in (a) above. These tests shall conform with EPA test specifications under 40 CFR 60 Appendix A including back-half. PM-10 tests shall conform to 40 CFR 51, Appendix M including back-half. All sources where tests are required must be equipped with stacks and sampling ports, with safe access for the sampling personnel.

2. Total Plywood Process Excluding the Veneer Dryers

a. This process includes the following:

<u>Description</u>	<u>Flow (SCFM)</u>
Plywood #1 chip bin cyclone	2800
Plywood #2 chip bin cyclone	2800
Plywood Lilly Pad cyclone	2800
Plywood Sander Baghouse	35000
Plywood 18" Trim Baghouse	15000
Plywood 30" Trim Baghouse	15000

- b. The total plywood process excluding veneer dryers shall be limited to 0.25 lbs of total particulate per thousand square feet (MSF) of plywood on a 3/8" basis, a maximum of 5.0 lbs/hr of total particulate, and a maximum of 2.5 lbs/hr of PM-10.
- c. Visible emissions from each of the emission points listed in (a) above shall be limited to 20% opacity as determined by 40 CFR 60 Appendix A, Method 9.
- d. Compliance with the above limitations shall be determined visually as described in (c) above. If a violation of the 20% opacity requirement is documented, or if the department has evidence that the emission limitations contained in (b) above are being exceeded, the department may require source testing of any or all of the emission points listed in (a) above. These tests shall conform with EPA test specifications under 40 CFR 60 Appendix A including back-half. PM-10 tests shall conform to 40 CFR 51, Appendix M including back-half. All sources where tests are required must be equipped with stacks and sampling ports, with safe access for the sampling personnel.

3. Total MDF Process Excluding Drying

a. This process shall include the following emission points:

<u>Description</u>	<u>Flow (SCFM)</u>
MDF chip cyclone	10000
<del>MDF N. Surge Bin Cyclone</del>	7500
<del>MDF S. Surge Bin Cyclone</del>	7500
<del>MDF N. Sander Baghouse</del>	55000
<del>MDF S. Sander Baghouse</del>	55000
<del>MDF Board Trim Baghouse</del>	5000
<del>MDF Sanderdust Fuel Baghouse</del>	5000
<del>MDF Hogfuel Blr Sndrdst Bghs</del>	15000
<del>MDF In-line Baghouse</del>	50000
<del>MDF CPS &amp; In-line Baghouse</del>	50000
<del>MDF Metering Bin Baghouse</del>	50000
MDF Fire Dmp Cyc (emerg. only)	
<del>MDF Felter Baghouse #1</del>	50000
<del>MDF Felter Baghouse #2</del>	50000
MDF Reject Fiber Cyc & Baghouse	50000

- b. The MDF process excluding drying shall be limited to 1.5 lbs of total particulate per thousand square feet (MSF) on a 3/4" basis, a maximum of 19.69 lbs/hr of total particulate, and a maximum of 9.85 lbs/hr of PM-10.
- c. Visible emissions from each of the emission points listed in (a) above shall be limited to 20% opacity as determined by 40 CFR 60 Appendix A, Method 9.
- d. Compliance with the above limitations shall be determined visually as described in (c) above. If a violation of the 20% opacity requirement is documented, or if the department has evidence that the emission limitations contained in (b) above are being exceeded, the department may require source testing of any or all of the emission points listed in (a) above. These tests shall conform with EPA test specifications under 40 CFR 60 Appendix A including back-half. PM-10 tests shall conform to 40 CFR 51, Appendix M including back-half. All sources where tests are required must be equipped with stacks and sampling ports, with safe access for the sampling personnel.

F. Fugitive Dust from Mill Vehicles and Log Yard Activity

1. Chemical dust suppressant shall be applied to the major roads on the log yard to control fugitive dust from all log handling equipment. The application schedule shall be no less than once per year. Water sprays shall be used as necessary to control dust emissions on active areas of the log yard. The opacity of the log yard dust emissions shall not exceed 20% at any time.

2. Chemical dust suppressant shall be applied to the major haul routes throughout the plant to control fugitive dust from the haul trucks. The application schedule shall be not less than once per year. The opacity of the haul road dust emissions shall not exceed 20% at any time.

G. Gas Boilers

1. Boiler emissions shall be limited to 0.40 lbs of total particulate per million Btu fired, but in no case shall emissions exceed 17.92 pounds of total particulate per hour.
2. Boiler emissions shall be limited to 0.40 lbs of PM-10 per million Btu fired, but in no case shall emissions exceed 17.92 pounds of PM-10 per hour.
3. Visible emissions shall be limited to 20% opacity.

H. Recipient shall comply with all other applicable state, federal and local air quality rules.

SECTION III: Monitoring and Reporting

No ambient monitoring will be required at this time.

SECTION IV: General Conditions

A. Inspection - The recipient shall allow the bureau's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, and otherwise conducting all necessary functions related to this permit.

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

C. 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 bureau to require compliance with all applicable statutes and administrative regulations, including amendments thereto.

D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in § 75-2-401, MCA.

E. Appeals - Any person or persons who are jointly or severally adversely affected by the bureau's decision may request, within fifteen (15) days after the bureau renders its decision, upon affidavit, setting forth the grounds therefore, a hearing before the Board. A hearing shall be held under the provision of the Montana Administrative Procedures Act. The bureau's decision on the application is not final unless fifteen (15) days have elapsed and there is no request for a hearing under this section. The filing of a

request for a hearing postpones the effective date of the bureau's decision until the conclusion of the hearing and issuance of a final decision by the Board.

F. Application Data - Information submitted on behalf of an air quality permit application is hereby incorporated as a condition of that permit including commencement and completion dates of construction.

G. Permit Inspection - As required by ARM 16.8.1115 Inspection of Permit, a copy of the air quality permit shall be made available for inspection by air quality personnel at the location of the permitted source.

H. Permit Duration - This permit is null and void if the MDF, plywood plant, sawmill or boiler is torn down, removed, or not capable of being operated for two years.

I. Permit Fees - Pursuant to Section 75-2-211, MCA, as amended by the 1991 Legislature, the continuing validity of this permit is conditional upon the payment by the permittee of an annual operation fee, as required by that Section and rules adopted thereunder by the Board of Health and Environmental Sciences.

#### SECTION V: Operational Reporting Requirements

Plum Creek shall submit the following production and operation information annually to the AQB by March 1st of each year. This information is required for use in calculation of the annual emission inventory.

A. Annual production information calculated on a calendar year basis for the previous calendar year.

<u>Source</u>	<u>Units of Material Processed</u>
MDF Plant	Million sq ft produced 3/4" basis
Plywood Plant	Million sq ft produced 3/8" basis
Lumber Mill	Million board ft produced
Wood-fired Boiler	Millions of BTUs produced
Cyclones and Baghouses	Hours of operation
Veneer Dryer	10 <sup>4</sup> ft <sup>2</sup> of plywood on a 3/8" basis processed
Face Dryer	Tons of fiber dried including resin and wax
Core Dryer	Tons of fiber dried including resin and wax

B. Hours of operation for the following sources:

MDF Plant  
Plywood Plant  
Lumber Mill  
Wood-fired Boiler

C. Fugitive dust information consisting of a listing of all plant vehicles including:

Vehicle type;  
Vehicle weight;  
Number of tires on vehicle;  
Average trip length;  
Number of trips per day;  
Average vehicle speed;  
Area of activity;  
Vehicle fuel usage (gasoline or diesel) - annual total;  
Hours of operation of water trucks;  
Chemical dust suppressant application schedule.

## Permit Analysis

### Plum Creek - Columbia Falls Permit Modification - Columbia Falls Facility

#### A. Introduction

Plum Creek Manufacturing currently operates a sawmill, planer, plywood plant, and a medium density fiberboard plant at the Columbia Falls site. Prior to this permit modification only the plywood veneer dryer (AQB #2667), the Wellons unit (AQB #1501), the MDF fiber dryers (AQB #2233), new baghouses at the MDF plant (AQB #2174), and the original MDF plant (AQB #5640051073) were subject to air quality permits. The sawmill and the plywood plant pre-date the Montana Clean Air Act and were not required to obtain a permit unless a modification of the source occurred, or a standard changed affecting the facility.

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new ambient air quality standards for particulate matter with an aerodynamic diameter of 10 microns or less (PM-10). The annual standard is  $50 \mu\text{g}/\text{m}^3$  and the 24-hour standard is  $150 \mu\text{g}/\text{m}^3$ . These standards were in turn adopted by the Montana Board of Health and Environmental Sciences on April 15, 1988. On August 7, 1987, EPA designated Columbia Falls as a PM-10 Group II area. Subsequent ambient air monitoring showed violations of the 24-hour PM-10 standard. On November 15, 1990, the 1990 amendments to the Federal Clean Air Act designated Columbia Falls as a nonattainment area. As a result of this designation, the department was required to develop a PM-10 emission control program as part of the State Implementation Plan (SIP) to bring the Columbia Falls area into compliance with the PM-10 standards and demonstrate maintenance of the standards.

In order to identify the emission sources which were contributing to violations of the PM-10 standards, the department conducted a chemical mass balance study (CMB). Plum Creek was identified by this study as contributing 18% to the source apportionment. The veneer dryers contributed 12.73%, the fiber dryers contributed 5.21%, and the boiler contributed 0.96% to the apportionment. The majority of the problem was determined to be re-entrained road dust.

The sources contributing to the PM-10 problem have been identified by the CMB analysis. Control plans are being developed for each source or source category including industrial sources (Plum Creek Manufacturing). Since the SIP must also demonstrate maintenance of the standards, the control plan must also contain enforceable limits on emission points which were not identified as contributing to the problem, but could contribute if emissions were allowed to substantially increase over what they were during the CMB study period. Therefore, this permit sets allowable limits for wood-waste transfer cyclones, fugitive dust, and baghouses as well as limits for the veneer dryers, the fiber dryers and the boiler.

## B. Process Description

This facility consists of three plants which are all located at the same site: the sawmill, the plywood mill, and the MDF fiberboard plant. The sawmill and plywood mill receive raw logs by truck. The logs are stored and sorted before being transferred to the mill for sawing into dimension lumber, or to the plywood plant for peeling into veneer. Waste wood such as chips and planer shavings are transferred to the MDF plant for processing into fiberboard. Wood shavings are also received from outside facilities as raw material for the fiberboard plant. All three plants share one boiler as a source of process steam for their operations. The boiler uses wood as a fuel and burns a mixture of bark, sawdust, sanderdust, and reject material from the plywood and fiberboard operations. The veneer dryer is also heated with wood through the use of a Wellons cell. The exhaust gases from the Wellons unit make direct contact with the veneer and then exit to atmosphere through an E-tube wet electrostatic precipitator. This scrubber was installed during the summer of 1991 and should reduce veneer dryer emissions from that recorded during the study period of September 1989 through April 1990.

The fiber dryers are also heated primarily with wood. One Coen and two Energex sanderdust burners heat the flash-tube dryers to dry the wood fiber for fiberboard manufacture. The dryers are controlled with long cone high efficiency multiclones.

Fugitive emissions from wood-waste transfer are controlled with baghouses or cyclones. Fugitive emissions from haul roads and the log deck are controlled with chemical dust suppressant.

The only change reflected in this permit is to include the entire facility in the permit. Also, a reduction in fugitive dust occurs due to chemical stabilization of plant roads and log yard areas.

## C. Applicable Regulations

### 1. ARM 16.8.821 Ambient Standards for PM-10

Plum Creek must demonstrate compliance with the applicable ambient air quality standards. The latest ambient data is showing compliance with the standards and the permit requirements are designed to establish enforceable limits in order to maintain compliance into the future.

### 2. ARM 16.8.1113(a) Modification of Permit

The department is allowed to modify Plum Creek's permit due to a change in the applicable PM-10 standard adopted by the Board of Health and Environmental Sciences. Plum Creek may appeal the department's modification to the Board.



Input material to dryer

wood 45% moisture	=	(38000 lb/hr)(1.45)	=	55100 lb/hr
resin 45% moisture	=	(3300 lb/hr)(1.45)	=	4800 "
wax 53% moisture	=	(300 lb/hr)(1.53)	=	<u>300</u> "
Total wt into dryer				60200 "

Add fuel to face dryer

Capacity of Energex burners - 45 million Btu/hr  
Fuel heat content - 7450 Btu/lb  
(45 MMBtu/hr)/7450 Btu/lb = 6040 lb/hr fuel

Total process weight = 60200 + 6040 = 66240 lb/hr for the face dryer

The allowable calculation for the core dryer is the same for material input. The fuel calculation is different because of the Coen burner with a capacity of 50 million Btu per hour.

Capacity of Coen - 50 MMBtu/hr  
Fuel heat content - 7450 Btu/lb  
(50 MMBtu/hr)/7450 Btu/lb = 6711 lb/hr fuel

Total process weight = 60200 + 6711 = 66911 lb/hr for the core dryer.

9. ARM 16.8.1404 Visible Air Contaminants

RACT requirements have been set at 20% opacity, and require all existing sources in nonattainment areas to comply.

10. ARM 16.8.900 PSD

The Plum Creek-Columbia Falls facility is a major stationary source; however, it is an existing plant and this permit is a reduction in emissions. Therefore, PSD is not applicable to this permit review.

11. ARM 16.8.1423 NSPS

There is no New Source Performance Standard for plywood plants or medium density fiberboard plants. Therefore, NSPS does not apply to this permit review.

12. Plum Creek - Columbia Falls RACT Analysis

- a. Wood-fired Boiler - This boiler was not shown to impact the nonattainment area significantly. Therefore, no change in allowable emissions is applicable to this unit. The fuel burning rule continues to apply.
- b. MDF Fiber Dryers - The emission controls for both the face and core dryer were replaced in 1988 and 1989. The

emissions for the fiber dryers were compared with other dryers throughout the country in 1987. At that time the average emission limit from fiber dryers surveyed was 70.3 lbs of particulate per hr, while the Plum Creek dryers were limited to 36 lbs/hr. Since this emission level is approximately one-half of the current average in the industry it qualifies as RACT for fiber dryers.

- c. Plywood Veneer Dryers - A new wet electrostatic precipitator has just been installed on the two veneer dryers at Columbia Falls to control emissions from both dryers. The dryers are wood-fired and contain the combustion emissions. Source tests from Oregon show control efficiencies between 76% and 86% as BACT. Since some control of this source is needed to show attainment with the SIP, RACT is required in setting the allowable. The existing process rate rule allows up to 28 lb/hr depending on moisture content of the wet veneer. This would allow 123 tons per year from this source which threatens to exceed the compliance demonstration for the SIP. Therefore, a reduction in the allowable emissions for this source is required by the SIP. The state SIP analysis shows that 110 tons per year will give a sufficient safety margin to assure PM-10 compliance in the area. This calculates to an allowable of 25 lbs/hr for both veneer dryers. In August of 1990, the uncontrolled emissions for these dryers were measured at 32.73 lb/hr of total particulate.
- d. Wood-Waste Transfer Systems - These systems use baghouses and cyclones for control of air emissions. These controls have been accepted as RACT for these sources when a 20% visible limitation is included.
- e. Fugitive Emissions: Haul roads, Log Deck, and Raw Material Storage - Plum Creek has used watering for dust control on all roads and log yards. This permit has required chemical dust suppression on haul roads and the major runways in the log yard area, and 20% opacity. This is determined to be RACT for these sources. Fugitive emissions from raw material storage are included here also.

D. Department Review of Modification

1. Existing Air Quality

The Columbia Falls area is currently a nonattainment area for the PM-10 standards. However, this area has shown attainment over the last three seasons, and is expected to continue in attainment if the controls instituted by the company and the community are maintained. This permit will make those controls enforceable, which will ensure future compliance with the PM-10 regulations.

2. PM-10 Emission Inventory

a. <u>Summary of Allowable Emissions</u>	<u>Existing</u>	<u>Proposed</u>
Boiler - 192 x 10 <sup>6</sup> MMBtu/hr	254 TPY	254 TPY
Face Dryer	157	157
Core Dryer	159	159
Veneer Dryer	110	110
Cyclones and Bghs	73	73

b. Estimate of Maximum Fugitive Emission from Facility

	<u>TSP (TPY)</u>	<u>PM-10 (TPY)</u>
<b>Planer Process</b>		
Shaving Bin Loadout	1.4	0.8
Chip Bin Loadout	0.6	0.3
<b>Sawmill Process</b>		
Debarker	4.4	2.0
Block Saw	9.1	5.4
Hog (wet)	0.5	0.2
Chip Bin	5.1	3.1
Sawdust Bin	3.6	2.1
<b>Plywood Veneer Prep.</b>		
Debarker	3.8	1.7
Block saw	7.9	4.7
Hog (wet)	0.5	0.2
Lily Pad Chipper	0.05	0.02
<b>Wet Fuel Target Boxes</b>		
Silo 70%	7.1	4.3
Truck Bin 28%	2.8	1.7
Storage Pile 2%	0.4	0.2
Wet Fuel Bin Loadout	0.6	0.3
Chip Bin Loadout	4.1	2.5
Wet Fuel Pile	3.3	2.0
<b>Plywood Layup and Sanding</b>		
Dry Fuel Bin loadout	9.2	5.5
Dry Fuel Silo vent (Wellons)	1.4	0.9
<b>MDF Materials Handling</b>		
Truck Dump	0.8	0.3
Stacker	7.8	3.1
Frontend Loader	2.1	1.3
Raw Material Cleaning	13.0	5.2
Raw Material Storage	3.2	1.3
<b>MDF Forming and Finishing</b>		
Press Vents (6 fans)	52.6	26.3
Board Cooler Fans (10 fans)	21.9	11.0
Press Unload Fans (3 fans)	26.3	13.1

	<u>TSP (TPY)</u>	<u>PM-10 (TPY)</u>
Hog Boiler Fuel Handling		
Sanderdust Silo	3.6	1.4
Truck Dump	0.3	0.1
Hog conveyor	0.3	0.1
Stacker	5.0	2.0
Front End Loader	0.8	0.3
Fuel Pile	6.5	2.6
Mobile Sources		
Log Trucks	18.8	9.4
Chp, Shavg, Sawdst Trks	6.7	3.3
Lumber Trucks	0.9	0.5
Le Tourneaus	8.7	4.4
Front End Loaders (MDF)	0.2	0.1
Front End Loaders (Log Yard)	2.6	1.3
Dump Trucks	0.6	0.3
Employee Vehicles	1.8	0.9
 Total Fugitive Estimate	 250.35	 126.22

### 3. Impact Analysis

No modeling has been required for this permit because it is a modification of previous permits with a reduction in allowable emissions. This permit modification is necessary to cap the emissions from all sources at the Plum Creek facility. The reduction in emissions from all sources in the Columbia Falls area will ensure compliance with the PM-10 regulations in the area.

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

ENVIRONMENTAL ASSESSMENT (EA)

**Project or Application:** This is a permit modification for the existing Plum Creek facilities located at Columbia Falls, MT. The modification is needed due to the change in the particulate regulations from TSP to PM-10 required by the federal Clean Air Act.

**Description of Project:** There is no physical change to the facility required by this permit. Fugitive dust control measures have been added to reduce allowable fugitive emissions.

**Benefits and Purpose of Proposal:** This permit modification will add enforceable provisions to the Plum Creek permit which will help attain PM-10 compliance in the Columbia Falls area.

**Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:** The permit modification is required by the changes in federal air quality laws. This permit modification has been discussed with company officials and is the best alternative to bring the Columbia Falls nonattainment area into compliance.

**A listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by the agency or another government agency:** See permit limitations.

**Recommendation:** An EIS is not needed for this modification.

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

**If an EIS is not required, explain why the EA is an appropriate level of analysis:** This is a modification of a permit for an existing facility, with a reduction in allowable emissions. Environmental impacts will decrease as a result, and it will help the area come into compliance with federal and state air quality regulations.

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

**Individuals or groups contributing to this EA:** AQB staff

**EA prepared by:** Warren Norton

**Date:** October 4, 1991

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

1. TERRESTRIAL AND AQUATIC LIFE AND HABITATS
2. WATER QUALITY, QUANTITY AND DISTRIBUTION
3. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE
4. VEGETATION COVER, QUANTITY AND QUALITY
5. AESTHETICS
6. AIR QUALITY
7. UNIQUE ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCE
8. DEMANDS ON ENVIRONMENTAL RESOURCE OF WATER, AIR AND ENERGY
9. HISTORICAL AND ARCHAEOLOGICAL SITES
10. CUMULATIVE AND SECONDARY IMPACTS

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ATTACHED
1.			X			
2.			X			
3.			X			
4.			X			
5.			X			
6.		X				X
7.			X			
8.			X			
9.			X			
10.			X			

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

1. SOCIAL STRUCTURES AND MORES
2. CULTURAL UNIQUENESS AND DIVERSITY
3. LOCAL AND STATE TAX BASE AND TAX REVENUE
4. AGRICULTURAL OR INDUSTRIAL PRODUCTION
5. HUMAN HEALTH
6. ACCESS TO AND QUALITY OF RECREATIONAL & WILDERNESS ACTIVITIES
7. QUANTITY AND DISTRIBUTION OF EMPLOYMENT
8. DISTRIBUTION OF POPULATION
9. DEMANDS FOR GOVERNMENTAL SERVICES
10. INDUSTRIAL AND COMMERCIAL ACTIVITY
11. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS
12. CUMULATIVE AND SECONDARY IMPACTS

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ATTACHED
1.			X			
2.			X			
3.			X			
4.			X			
5.			X			
6.			X			
7.			X			
8.			X			
9.			X			
10.			X			
11.		X				X
12.			X			

Additional Comments to EA

Potential Impact on Physical Environment

6. Air Quality - The new air quality control equipment installed by industry in the area will enhance the visibility of the airshed and help to attain and maintain the PM-10 attainment levels.

Potential Impact on Human Environment

11. Locally Adopted Environmental Plans and Goals - The city council has worked for the last two seasons to curb emissions from city streets and wood stoves. The additional controls installed by industry in the area will help attain the PM-10 standards in Columbia Falls.