

AIR QUALITY PERMIT

Issued to: Plum Creek Manufacturing, LP	Permit Number: 2602-08
Evergreen Facility	Application Complete: 05/30/02
P.O. Box 5257	Preliminary Determination Issued: 07/03/02
Kalispell, MT 59903	Department Decision Issued: 07/25/02
	Permit Final: 08/10/02
	AFS #30-029-0005A

An air quality permit with conditions is hereby granted to Plum Creek Manufacturing, LP – Evergreen (Plum Creek) facility pursuant to Section 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM), 17.8.701, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

- A. This permit covers all existing sources of air contaminants at Plum Creek's Evergreen plywood plant located approximately 3 miles northeast of Kalispell, Montana, near the Evergreen subdivision in the SW $\frac{1}{4}$ of Section 33, Township 29 North, Range 21 West, Flathead County, Montana. A listing of permitted equipment is contained in the permit analysis attached to this permit.

B. Current Permit Action

On May 30, 2002, the Department of Environmental Quality (Department) received a complete New Source Review (NSR) Prevention of Significant Deterioration (PSD) permit application for the historical 1989 Small Log Sawmill (SLS) project at the Plum Creek facility. The Plum Creek facility was a major source of emissions as defined under the NSR program at the time of the SLS project. Further, at the time of the SLS project, the Evergreen area was designated attainment/unclassified for all pollutants. The area was later re-designated as a PM₁₀ nonattainment area on November 15, 1990, and the Department was required to develop a State Implementation Plan (SIP) to bring the area back into compliance with the National Ambient Air Quality Standards (NAAQS) for PM₁₀. Because the Evergreen area was considered attainment or unclassified for all pollutants at the time of the SLS project, NSR/PSD permit review was required rather than an NSR NonAttainment Area (NAA) permit review.

Under the current permit action, emissions of all regulated pollutants were compared to NSR/PSD significant emission rate (SER) thresholds to determine if NSR/PSD review was required. Under the NSR/PSD program, a change to an existing major source is considered to be a major modification requiring NSR/PSD review if the emissions increase resulting from the modification is greater than the SER for any pollutant. The SLS project results in net emissions increases exceeding the applicable SER for PM, PM₁₀, and CO; therefore, NSR/PSD review applies to these pollutants under the current permit action. However, NSR/PSD review was conducted for CO emissions, including Riley Stoker Boiler emissions, under permit action #2602-07; therefore, NSR/PSD review for CO was not required for the current permit action, because it has already been satisfied.

As part of NSR/PSD review, a source is required to demonstrate compliance with the NAAQS and Montana Ambient Air Quality Standards (MAAQS) and all applicable Class I and Class II increments through air dispersion modeling for all applicable pollutants. However, because the Evergreen area has, since construction and initial operation of the SLS

project, been covered under a SIP incorporating a control plan and limits for PM/PM₁₀ emission sources in the area, including the Plum Creek facility, the Department determined that air dispersion modeling for the SLS project is not required.

Further, the current retroactive NSR/PSD action also accounts for the increase in CO emissions associated with the historical 1995 Veneer Dryer Control Project (Veneer Dryer Project). Although CO emissions are directly associated with the Riley Stoker Boiler and do not result from operation of the Veneer Dryers themselves, the Veneer Dryer Project debottlenecked the plywood process and increased steam production from the Riley Stoker Boiler. Therefore, CO emissions from the Riley Stoker Boiler are considered in the analysis for the Veneer Dryer Project.

Finally, the permit format was updated to reflect current Department air quality permit format.

SECTION II: Limitations and Conditions

A. Facility-Wide Limits and Conditions

1. Plum Creek shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source, installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
2. Plum Creek 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 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
3. Plum Creek shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control airborne particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308).
4. Plum Creek shall not process more than 850,000 tons of logs during any rolling 12-month time period (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
5. Plum Creek shall not process more than 227,760 thousand square feet of product in the Veneer Dryers during any rolling 12-month time period (ARM 17.8.710).

B. Individual Source Limits and Conditions

1. Riley Stoker Boiler
 - a. Emissions from the boiler shall be limited to 11.25 lb/hr of total particulate matter (ARM 17.8.715).
 - b. Emissions from the boiler shall be limited to 11.25 lb/hr of PM₁₀ (ARM 17.8.715).
 - c. Visible emissions from the boiler shall be limited to 20% opacity (ARM 17.8.304).
 - d. Nitrogen oxide emissions from the boiler shall be limited to 104 lb/hr (ARM 17.8.818).

- e. Carbon monoxide emissions from the boiler shall be limited to 506 lb/hr (ARM 17.8.818).
2. Veneer Dryers (2)
- a. Plywood veneer dryer emissions shall be limited to 12.60 lb/hr of total particulate (ARM 17.8.715).
 - b. Plywood veneer dryer emissions shall be limited to 12.60 lb/hr of PM₁₀ (ARM 17.8.715).
 - c. Visible emissions shall be limited to 20% opacity (ARM 17.8.304).
3. Total Sawmill Process
- Visible emissions shall be limited to 20% opacity from all sources included in the sawmill (ARM 17.8.304).
4. Total Planer Process
- a. Emissions from the planer shavings bin baghouse shall be limited to 16.40 lb/hr of total particulate (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - b. Emissions from the planer shavings bin baghouse shall be limited to 8.20 lb/hr of PM₁₀ (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - c. Visible emissions shall be limited to 20% opacity from all sources included in the planer process (ARM 17.8.304).
 - d. Plum Creek shall use a cyclone and a baghouse to control particulate emissions from the planer process (ARM 17.8.715).
5. Total Plywood Process Excluding the Dryers
- a. Emissions from the plywood sander baghouse shall be limited to 6.17 lb/hr of total particulate (ARM 17.8.715).
 - b. Emissions from the plywood sander baghouse shall be limited to 6.17 lb/hr of PM₁₀ (ARM 17.8.715).
 - c. Emissions from the sander dust silo baghouse shall be limited to 0.32 lb/hr of total particulate (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - d. Emissions from the sander dust silo baghouse shall be limited to 0.32 lb/hr of PM₁₀ (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - e. Emissions from the sawline baghouse shall be limited to 0.89 lb/hr of total particulate (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).

- f. Emissions from the sawline baghouse shall be limited to 0.89 lb/hr of PM₁₀ (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - g. Emissions from the dry fuel baghouse shall be limited to 0.86 lb/hr of total particulate (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - h. Emissions from the dry fuel baghouse shall be limited to 0.86 lb/hr of PM₁₀ (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - i. Visible emissions shall be limited to 20% opacity from all sources included in the plywood process (ARM 17.8.304).
6. Fugitive Dust From Haul Roads.
- a. Plum Creek shall not cause or authorize to be discharged into the atmosphere from any access roads, parking lots, and log decks of the general plant property any visible fugitive emissions that exhibit opacity of 5% or greater averaged over 6 consecutive minutes (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - b. 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 (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - c. Plum Creek shall treat all log decks with water as necessary to maintain compliance with the 5% opacity limitation (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
7. Boiler Fuel Storage and Handling.
- Visible emissions shall be limited to 20% opacity from all sources included in boiler fuel storage and handling operations (ARM 17.8.308).
8. Rawlings Log Yard Residue Reclaim System
- a. Plum Creek shall minimize the drop height of all loading and transfer points on the reclaim system, maintain the partial enclosure of the primary classifier on the reclaim system, and maintain full enclosure on the hog on the reclaim system as specified in Permit Application #2602-05 (ARM 17.8.715).
 - b. All visible emissions from the Rawlings log yard residue reclaim system are limited to 20% opacity (ARM 17.8.308).
 - c. Plum Creek shall not cause or authorize to be discharged into the atmosphere from the log yard any visible fugitive emissions that exhibit opacity of 5% or greater (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).
 - d. Plum Creek shall treat all unpaved portions of the log yard with water as necessary to maintain compliance with the 5% opacity limitation (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation).

- e. Water spray bars are required on the reclaimer, classifiers, and conveyor discharges as necessary, if fugitive emissions are greater than 10% opacity (ARM 17.8.710).
 - f. The Rawlings log yard residue reclaim system is limited to the following (ARM 17.8.710):
 - i. Production rate of 360 cubic yd/hour;
 - ii. Operation shall be limited to 2940 hours during any rolling 12-month time period;
 - iii. Operation shall only occur from April 1 through November 30.
 - g. Plum Creek 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 (ARM 17.8.710).
 - h. Plum Creek shall retain daily production numbers for a minimum of 5 years (ARM 17.8.710).
9. Remanufacturing Facility
- a. Plum Creek shall install and maintain the baghouse on the remanufacturing facility (ARM 17.8.715).
 - b. Emissions from the remanufacturing baghouse shall be limited to 3.43 lb/hr of total particulate (ARM 17.8.715).
 - c. Emissions from the remanufacturing baghouse shall be limited to 3.43 lb/hr of PM₁₀ (ARM 17.8.715).
 - d. Visible emissions from each stack associated with the remanufacturing facility shall be limited to 20% opacity (ARM 17.8.304).
10. Medium Density Overlay (MDO) Process
- Visible emissions shall be limited to 20% opacity from all sources included in the MDO process (ARM 17.8.308).
11. Scarfing Line Process
- a. Visible emissions shall be limited to 20% opacity from all sources included in the scarfing line process (ARM 17.8.308).
 - b. Emissions from the scarfing saw, the cutoff saw, and the small spot sander shall be controlled by the plywood sander baghouse (ARM 17.8.715).

12. Chip Bins

Plum Creek shall use a cyclone to control emissions from the Chip Bins (ARM 17.8.715).

C. Testing Requirements

1. Plum Creek shall conduct initial performance tests for total particulate, PM₁₀ and opacity and demonstrate compliance with the limitations in Sections II.B.1.a - c within 180 days of completion of the feed system modification. The testing and compliance demonstrations shall continue on an every 4-year basis. The tests shall conform to the methods and requirements of 40 CFR 60.8 and the Montana Source Test Protocol and Procedures Manual. Total particulate results may be used as a surrogate for PM₁₀ if the impinger analysis (“back-half”) is included (ARM 17.8.105).
2. Plum Creek shall conduct initial performance tests for NO_x and CO concurrently and demonstrate compliance with the limitations in Sections II.B.1.d and e within 180 days of completion of the feed system modification. The testing and compliance demonstrations shall continue on an every 4-year basis (ARM 17.8.105).
3. Source testing shall be conducted on the veneer dryers to demonstrate compliance with the limitations contained in Section II.B.2.a and b. The testing was performed on September 19, 1995, and shall continue on an every 3-year basis. Total particulate tests shall include an impinger (back-half) analysis. The Department may allow a total particulate test only if the back-half is included and it is acknowledged that this test can be used as a surrogate for PM₁₀ (ARM 17.8.104 and ARM 17.8.105).
4. Source testing shall be conducted on the planer shavings bin baghouse to determine compliance with the limitations contained in Section II.B.4.a and b. The testing was performed on November 2 and 3, 1994, and shall continue on an every 3-year basis. The Department may allow a total particulate test only if the back-half is included and it is acknowledged that this test can be used as a surrogate for PM₁₀ (ARM 17.8.104 and ARM 17.8.105).
5. Source testing shall be required on the plywood sander baghouse to demonstrate compliance with the limitations contained in Section II.B.5.a and b. The testing was performed on November 2 and 3, 1994, and shall continue on an every 3-year basis. The Department may allow a total particulate test only if the back-half is included and it is acknowledged that this test can be used as a surrogate for PM₁₀ (ARM 17.8.104 and ARM 17.8.105).
6. Source testing shall be required on the remanufacturing baghouse to demonstrate compliance with the limitation contained in Section II.B.9.b and c. The testing was performed on May 31 and June 1, 1995, and shall continue on an every 3-year basis. The Department may allow a total particulate test only if the back-half is included and it is acknowledged that this test can be used as a surrogate for PM₁₀ (ARM 17.8.104 and ARM 17.8.105).
7. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
8. The Department may require further testing (ARM 17.8.105).

D. Control Equipment Performance Monitoring and Reporting

1. The appropriate performance parameters for the wet electrostatic precipitator (ESP) on the veneer dryers and the ESP on the boiler shall be monitored and recorded. These shall include the secondary voltage (volts, D.C.) and secondary current (amps). Each of the readings shall be recorded once per shift. Plum Creek shall maintain these records on site for 3 years and shall submit the records to the Department upon request (ARM 17.8.710).
2. Plum Creek shall operate the following control equipment (Board Order Montana SIP 15.2.5 and the 9/17/93 Stipulation):
 - a. Hog Fuel Boiler ESP
 - b. Two Veneer Dryers ESP
 - c. Sawmill Log Debarking Water Sprays
 - d. Plywood Log Debarking Water Sprays
 - e. Sawmill Chip Bin Cyclone
 - f. Planer Shavings Bin Baghouse
 - g. Plywood Fines Cyclone
 - h. Sanderdust Silo Baghouse
 - i. Sander Cyclone Baghouse
 - j. Sawline Baghouse
 - k. Dry Fuel Baghouse
 - l. Planer Shavings Loadout Partial Enclosure

E. Operational Reporting Requirements

1. Plum Creek shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis, sources identified in Section I of this permit, and Section I.C. of the permit analysis.

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

2. Plum Creek shall supply the Department with annual production information for the following emitting units:

<u>Source</u>	<u>Units of material processed</u>
Planer Shavings Bin	Tons of planer shavings handled
Block Saws	Tons of logs
Debarkers	Tons of logs
Fines Bin	Tons of fines handled
Chip Bins	Tons of chips handled
Veneer Dryer	10 ⁴ ft ² of veneer processed, 3/8" basis
Sander Dust Silo	Tons of sander dust handled
Fuel Bunker	Tons of fuel (wood waste) handled

Dry Fuel Baghouse	Tons of fuel (wood waste) handled
Riley Stoker Boiler	Tons of fuel (wood waste and sander dust) handled
Plywood Sawline and Sander	ft ² of plywood through sawline and sander, 3/8" basis
Log Yard Reclaim System	Tons of log yard residue
Reman. Joiner Chip Bin	Tons of chips handled
Reman. Chipper Chip Bin	Tons of chips handled

3. Plum Creek shall provide the hours of operation for the following sources:
 - Sawmill
 - Planer
 - Plywood Mill
 - Veneer Dryer
 - Riley Stoker Boiler
 - Log Yard Reclaim System
 - Remanufacturing Baghouse
4. Plum Creek shall provide the total miles traveled for each vehicle type.
5. Plum Creek shall provide the following information regarding fugitive dust control for haul roads and general plant area:
 - a. Hours of operation of water trucks.
 - b. Application schedule for chemical dust suppressant if applicable.
6. Plum Creek shall document, by month, the total tons of logs processed at the facility. By the 25th day of each month, Plum Creek shall total the tons of logs processed during the previous 12 months to verify compliance with the limitation in Section II.A.4. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.710).
7. Plum Creek shall document, by month, the total amount of product (in thousand square feet) processed by the Veneer Dryers. By the 25th day of each month, Plum Creek shall total the square feet of product processed by the Veneer Dryers during the previous 12 months to verify compliance with the limitation in Section II.A.5. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.710).

F. Notification

Plum Creek shall provide the Department with written notification of the following dates within the specified time periods:

1. Pre-test information must be completed and received by the Department no later than 25 working days prior to any proposed test date according to the Montana Source Test Protocol and Procedures Manual (ARM 17.8.105).
2. The Department must be notified of any proposed test date 10 working days before that date according to the Montana Source Test Protocol and Procedures Manual (ARM 17.8.105).

Section III: General Conditions

- A. Inspection – Plum Creek shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Plum Creek fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Plum Creek of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.701, *et seq.* (ARM 17.8.717).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department’s decision may request, within 15 days after the Department renders it’s decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The Department’s decision on the application is not final unless 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 Department’s decision until conclusion of the hearing and issuance of a final decision by the Board.
- F. Permit Inspection – As required by ARM 17.8.716, Inspection of Permit, a copy the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Plum Creek may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.731).

Permit Analysis
Plum Creek Manufacturing, LP
Evergreen Facility
Permit #2602-08

I. Introduction/Process Description

A. Site Location

The Plum Creek Manufacturing, LP - Evergreen (Plum Creek) facility is located approximately 3 miles northeast of Kalispell, Montana, near the Evergreen subdivision in the SW ¼ of Section 33, Township 29 North, Range 21 West, in Flathead County. The nearest Class I area is Glacier National Park, located approximately 16 miles northeast of Plum Creek's existing plant. Other nearby Class I areas which may be of concern are the Flathead Indian Reservation, approximately 25 miles south, and the Bob Marshall Wilderness, approximately 43 miles southeast. Plum Creek's plant is located within the boundaries of the Kalispell PM₁₀ nonattainment area.

B. Source Description

Plum Creek currently operates an existing plywood plant near the Evergreen subdivision in Kalispell, Montana. The process of making plywood is as follows. Raw logs are cut to desired lengths, debarked, and peeled into thin uniform veneers. The veneers are then transported to the veneer dryers where they are dried. Indirect heat for the two veneer dryers is supplied by a Riley Stoker boiler. The maximum capacity of the two veneer dryers is a combined 30,000 ft² per hour of veneer @ 3/8". After drying, the veneer is sorted and sent to the lay-up operation where it is assembled in various layers. A plywood panel is formed by applying resin to the veneer layers then pressing the veneer layers under heat. The plywood is then trimmed and sanded. The Riley Stoker boiler is fueled with hogged wood waste and sander dust. The steam capacity of the Riley Stoker boiler is 140,000 lb/hour (Permit #2606-07). The boiler stack is 6.5 feet in diameter and 100 feet in height. The particulate control device on the boiler has been a wet scrubber. An electrostatic precipitator (ESP) was added in 1992 to satisfy a consent decree.

C. Permitted Process and Control Equipment:

1. Riley Stoker Boiler - with a design input capacity of 225 million Btu/hr. This is based on a maximum steam output rate of 140,000 lb steam/hr. This boiler is controlled with an ESP.
2. Veneer Dryers (2) - with a combined capacity of 30,000 square feet of 3/8" veneer per hour. This equals 937.5 cubic feet of wood per hour. The density of the wood is estimated at 47.6 lb/cubic foot at 66% moisture. The maximum process rate is then 22.31 ton/hr. These dryers are controlled with a GeoEnergy E-Tube wet ESP.
3. Total Sawmill Process - This process includes all point source emissions from the chip bin cyclone. Fugitive sources are log debarking, log sawing, chip screen, chip bin loadout, and sawmill building vents.
4. Total Planer Process - This process includes all point source emissions from the shavings cyclone/baghouse. Fugitive emissions are planer shavings bin, dry chip target box, chipper and chip screen process.

5. Total Plywood Process Excluding the Veneer Dryers - This process includes all point source emissions from the fines cyclone, sander dust silo baghouse, sander dust baghouse, sawline baghouse, and dry fuel baghouse. Fugitive sources include the debarker, block saw, lily pad chipper, chip screen, chip bin loadout, and green stackers.
6. Mobile Source Fugitive Emissions - This process includes all particulate emissions from mobile vehicle activity on company property, as well as the gaseous emissions from the gasoline and diesel engines used in these vehicles.
7. Boiler Fuel Storage and Handling. - This process includes fugitive particulate emissions from the bark hog, bark belt, fuel bunker, overs conveyor, and the fuel pile.
8. Clarke Log Yard Residue Reclaim System - This process includes fugitive particulate emissions from the loader dumping into reclaimer, reclaimer, all conveyors, classifiers, trommel screen, air knife separator, rock and metal separators (RMS), and conveyor discharges.
9. Remanufacturing Facility - This process includes the remanufacturing joiner chip bin, the remanufacturing chipper chip bin, the two cyclones controlling emissions from the remanufacturing facility, and the baghouse (similar to the planer shavings baghouse) to which the cyclones are vented.
10. Medium Density Overlay (MDO) Process - This process will produce a plywood panel that has kraft paper glued onto one or both of its faces. The process equipment for the MDO process line is a heat press and a trim saw.
11. Scarfing Line Process - This process will glue plywood panels together to make long panels. The equipment for the scarfing line is the scarfing saw, the cutoff saw, and the small spot sander, which is tied into the existing plywood sander baghouse system.

D. Permit History

Plum Creek has operated a plywood plant near the Evergreen subdivision in Kalispell, Montana since the late 1970s when Plum Creek purchased the facility from C & C Plywood Corp. The facility included an existing boiler, two veneer dryers, a plywood mill, a sawmill, and existing equipment not covered by an air quality permit. Air quality **Permit #1752** was initially issued for operation of the Riley Stoker boiler on April 29, 1983.

Permit #2602 was issued October 13, 1989, for an increase of the Riley Stoker boiler capacity.

Plum Creek was issued **Permit #2602-01** on September 25, 1992, for the following reasons:

1. To consolidate all of the source's existing permits into a single permit. This alteration placed all air quality permit requirements in a single document.
2. As the result of the settlement of enforcement actions (Consent Decree, Stipulation, and Order - Cause No. DV 90-114B, and Cause No. DV 91-313B, Eleventh District Court, Flathead County, Montana) taken by the Department of Environmental Quality (Department), Plum Creek agreed to install new control systems on the Riley

Stoker boiler and the veneer dryers. The alteration of Permit #2602 was done to document the installation of the new systems. Plum Creek was required to permanently derate the Riley Stoker boiler back to the 100,000 lb steam/hr which was the level it was operating at prior to issuance of Permit #2602.

a. Veneer Dryers

Plum Creek installed the GeoEnergy E-Tube wet ESP as the control device for the veneer dryers. The E-Tube collects the dust particles from conditioned dirty gas by ionizing the gas with disc electrodes contained in a collection tube. The charged particles are collected on the walls of the tube, along with entrained water droplets. The water film helps to clean the collection tube, along with a periodic flush from the top. The residue collected from the flushing of the system can be utilized by adding it to the hog fuel supply system.

b. Riley Stoker Boiler

Plum Creek installed an ESP as the control device for the boiler. The ESP was installed downstream of a mechanical collector and an induced draft fan. Design requirements for the ESP include a maximum gas flow of 139,000 ACFM, normal exit gas temperature of 500°F, and an emergency exit gas temperature of 750°F. Design pressure extremes require a ± 15 " w.c. and the inlet dust loading design value, under extreme conditions, was limited to 1.0 gr/dscf. Stack gas design velocity is 3,000 to 3,500 feet per minute.

3. The 1990 Clean Air Act Amendments require the application of Reasonably Available Control Measures (RACM) to sources located in or significantly impacting moderate PM₁₀ nonattainment areas. RACM was defined as Reasonably Available Control Technology (RACT) for existing PM₁₀ stack or point sources, process fugitives, and fugitive dust sources such as haul roads, open stockpiles, disturbed areas, or unpaved staging areas (see "Guidance on Reasonably Available Control Requirements in Moderate PM₁₀ Nonattainment Areas"). The Department required that Plum Creek apply RACT to all applicable sources at the Evergreen plywood plant and required Plum Creek to modify the existing air quality permit (#2602) to include the RACT requirements as enforceable permit conditions.
4. The Department, as part of its control strategy development for the Kalispell PM₁₀ State Implementation Plan (SIP), determined it was necessary to establish enforceable allowable emission limitations for all existing major sources located in the non-attainment area. The modifications made to Permit #2602 established those allowable emission limitations. Permit #2602-01 replaced Permit #2602.

Permit #2602-02 was issued to Plum Creek on September 20, 1993, to install and operate a Clarke log yard residue reclaim system at the Evergreen plywood plant.

The operation of the Clarke log yard residue reclaim system allowed Plum Creek to recycle log yard debris that was previously trucked to an on-site landfill. Debris is separated into wood waste, soil, and rock fractions. Reclaimed wood waste is taken to the hog fuel pile and burned. The soil and wood fiber fines may be used for landscaping purposes. Rock and gravel separated from the waste material is returned to the log yard. Overall environmental

benefits from the project included reduction of material disposed of in the landfill, more rock in the log yard to reduce fugitive dust, and less haul traffic from the log yard to the off-site landfill. Permit #2602-02 replaced Permit #2602-01.

Plum Creek was issued **Permit #2602-03** on June 6, 1994, for the construction and operation of a new sander dust baghouse and a remanufacturing facility at the Evergreen facility. The new baghouse was necessary because the old sander at the plywood plant was replaced with a new sander. The new sander has more heads that will create a smoother surface and improve the quality of the plywood. The new baghouse is larger and will be capable of handling the larger airflow that will result from the new sander. There was an increase in particulate emissions from the new baghouse.

The remanufacturing plant processes low quality scrap lumber from the sawmill and manufacture moldings. The scrap lumber is sized in the remanufacturing plant with the larger pieces being remanufactured into moldings. The smaller pieces are sent to a chipper and sold as wood chips.

The larger scrap lumber is finger jointed and glued to extend the length of the scrap wood. The finger jointed scrap is then cut and molded into shape. Waste from the finger jointer, saw, and molder is used as fuel for the hog fuel boiler.

The waste stream from the chipper is transported pneumatically from the chipper to a cyclone. The cyclone separates the chips for deposit in the truck bin. The chipper cyclone exhaust is sent to a new fabric filter baghouse. The exhaust from the finger jointer, saw, and molder is also transported pneumatically to a cyclone. The cyclone separates the wood particles for deposit in a truck bin for use as fuel in the hog fuel boiler. The cyclone exhaust from the finger jointer cyclone is vented to the same baghouse as the chipper cyclone exhaust.

To offset the increase in particulate emissions from the sander baghouse, remanufacturing baghouse, and chip bin, Plum Creek proposed to reduce the enforceable emission rate from the veneer dryers. As mentioned above, a consent decree required Plum Creek to install an ESP on the veneer dryers (Permit #2602-01) to meet their opacity limit. With the installation of the ESP there was also a reduction of actual particulate emissions. This reduction of actual emissions was sufficient to offset this proposed increase in emissions.

In addition to the above-mentioned changes, Plum Creek officially requested that the conditions of Permit #2602-02 for the Evergreen facility be modified to reflect the limitations and conditions contained in the 9/17/93 Stipulation.

Plum Creek was issued **Permit #2602-04** on February 25, 1995, for the construction and operation of a Medium Density Overlay (MDO) process line and a scarfing line at their Evergreen facility. The MDO process line produces a plywood panel that has kraft paper glued onto one or both of its faces. The process equipment for the MDO process line includes a heat press and a trim saw. There was not an increase in production as a result of the MDO process, but rather panels from other reduced product lines will be used. An increase in particulate matter emissions was not expected because the panels to be used in the MDO process are normally trimmed at the facility as part of the plywood process. The MDO process resulted in an increase in VOC emissions of approximately 0.038 tons/year from the glue that is used in this process.

The scarfing line process glues plywood panels together to make long panels. The process equipment installed for the scarfing line process included the scarfing saw, the cutoff saw,

and the small spot sander, which was tied into the existing plywood sander baghouse system. The scarfing line did not result in an increase in production because the plywood panels that are used in the scarfing line are produced elsewhere in the plant. The scarfing line did not result in an increase in particulate matter emissions because the panels to be used in the scarfing line are normally sawed and sanded at the facility as part of the plywood process. In addition, the total air flow of the plywood sander baghouse was still less than the current design air flow of 72,000 acfm at a permitted emission rate of 6.17 lb/hr. The scarfing line resulted in an increase in VOC emissions of 0.006 tons/year from the glue that is used in this process.

Plum Creek was issued **Permit #2602-05** on June 4, 1995, to replace the existing Clarke log yard residue reclaim system with a new Rawlings log yard residue reclaim system. The new system included a reclaimer, conveyors, classifiers, a trommel screen, and rock and metal separators (RMS). This system is powered by a 340 hp diesel engine. The Rawlings system is slightly larger than the Clarke system and resulted in an increase in TSP emissions of 0.29 tons/year and in an increase in PM₁₀ emissions of 0.75 tons/year. Because Plum Creek's facility is located in a PM₁₀ nonattainment area and there would be an increase in PM₁₀ emissions, the operation of the Rawlings system was limited to 2940 hours/year of operation during the months of April through November.

Permit #2602-06 removed specific hourly emission limits from the following sources:

- Sawmill Chip Bin Cyclone
- Plywood Fines Cyclone
- Remanufacturing Jointer Bin
- Remanufacturing Chipper Bin

As part of the Kalispell PM₁₀ State Implementation Plan (SIP), emission limits were placed on various sources of emissions at the facility. In many cases, these limits were equal to the potential-to-emit (PTE) of the source.

The Title V Operating Permit Program imposes different requirements on a facility depending on whether a particular source is considered significant or insignificant. If the specific emission limits were not an applicable requirement for the units listed above, they would be considered insignificant sources because of their size and function. Plum Creek suggested, and the Department agreed, that the limits on the above sources were meaningless because they equal the PTE of the units and, by definition, the sources were not capable of emission rates in excess of the limits. This permitting action did not increase either actual or allowable emissions from the facility.

Permit Alteration **#2602-07** was issued on February 15, 1997, and authorized an increase in the hog fuel boiler steaming capacity and tons of logs debarked at the facility as well as the installation of an air knife separator in the log yard residue reclaimer. The permitting action was subject to the review requirements of the New Source Review (NSR) Prevention of Significant Deterioration (PSD) program for NO_x and CO. Plum Creek "netted out" of PSD review for PM and PM₁₀.

The increase in steaming capacity of the boiler was needed during the winter months to provide heat for new building space as well as steam for recently installed processes such as the medium density fiberboard (MDF) facility. Plum Creek was limited to 100,000 lb of steam/hour from the hog fuel boiler and requested that this limit be increased to 140,000 lb/hour. Along with this change Plum Creek requested a decrease in allowable particulate emissions from the hog fuel boiler.

The increase in the log tonnage was needed to offset increasingly heavier wood. A decrease in the amount of salvage timber caused the average density of the logs received at the facility to increase. The previous limit on the tons of logs debarked was proposed by Plum Creek during the development of the Kalispell PM₁₀ SIP and was meant to allow the mill to operate at full capacity. Plum Creek determined that because of the increased log density, the production allowed by the previous debarking limit was inadequate. Plum Creek requested that the limit be increased from 734,400 tons of logs/year to 850,000 tons/year.

The changes in allowable emissions from the facility associated with this permitting action were as follows:

PM - 18.0 tons/year decrease
 PM₁₀ - 22.9 tons/year decrease
 NOx - 128.4 tons/year increase
 CO - 628.2 tons/year increase
 SO₂ - 2.0 tons/year increase
 VOC - 6.3 tons/year increase

These changes in allowable emissions were different from the net emissions increases used to determine if the Major NSR/PSD programs were applicable (Section II.E and II.F of Permit Analysis #2602-07). The net emissions increases for PSD and NSR applicability are based on the difference between past actual emissions and future potential emissions and not the change in allowable emissions. Permit #2602-07 replaced Permit #2602-06.

E. Current Permit Action

On May 30, 2002, the Department received a complete NSR/PSD permit application for the historical 1989 Small Log Sawmill (SLS) project at the Plum Creek facility. The Plum Creek facility was a major source of emissions as defined under the NSR program at the time of the SLS project. Further, at the time of the SLS project, the Evergreen area was designated attainment/unclassified for all pollutants. The area was later re-designated as a PM₁₀ nonattainment area on November 15, 1990, and the Department was required to develop a SIP to bring the area back into compliance with the National Ambient Air Quality Standards (NAAQS) for PM₁₀. Because the Evergreen area was considered attainment or unclassified for all pollutants at the time of the SLS project an NSR/PSD permit review was required rather than an NSR Nonattainment Area (NAA) permit review.

Under the current permit action, emissions of all regulated pollutants were compared to NSR/PSD significant emission rate (SER) thresholds to determine if NSR/PSD review was required. Under the NSR/PSD program, a change to an existing major source is considered to be a major modification requiring NSR/PSD review if the emissions increase resulting from the modification is greater than the SER for any pollutant. Total potential SLS emissions increases and the NSR/PSD SERs for the 1989 SLS project are contained in the table below.

Small Log Sawmill Total Emission Increase		
Pollutant	Increase (tons/year)	NSR/PSD SERs (tons/year)
PM	125.00	25

PM ₁₀	83.70	15
CO	170.00	100
NO _x	18.70	40
SO ₂	1.50	40
VOC	22.70	40
Lead	0.00	0.6

As indicated in the table above, the SLS project results in net emissions increases exceeding the applicable SER for PM, PM₁₀, and CO; therefore, NSR/PSD review applies to these pollutants under the current permit action. NSR/PSD review was conducted for CO emissions, including Riley Stoker Boiler emissions, under permit action #2602-07; therefore, NSR/PSD review for CO was not required for the current permit action, because it has already been satisfied. However, the appropriate review for PM and PM₁₀ was not done at that time.

As part of NSR/PSD review a source is required to demonstrate compliance with the NAAQS and Montana Ambient Air Quality Standards (MAAQS) and all applicable Class I and Class II increments through air dispersion modeling for all applicable pollutants. However, because the Evergreen area has, since construction and initial operation of the SLS project, been covered under a SIP incorporating a control plan and limits for PM/PM₁₀ emission sources in the area (including the Plum Creek facility) the Department determined that air dispersion modeling for the SLS project is not required.

The NSR/PSD rules also require that each major source and/or major modification must employ Best Available Control Technology (BACT) for each pollutant for which a new source or modification is considered major. BACT is applied on a pollutant-by-pollutant basis to each physically modified emission unit that experiences an emission increase of the pollutant of concern as a result of the project. The affected emitting units for the current permit action include 5 saws, the planer, chip bins, chippers, and the sawmill lumber dry kilns. A particulate matter BACT analysis for the SLS project is contained in Section IV of the permit analysis. A CO BACT analysis was not required for the current permit action because CO emissions result from Riley Stoker Boiler operations. The Riley Stoker Boiler was not modified as part of the SLS project; therefore, emissions from the Riley Stoker Boiler are considered secondary or associated emissions and BACT review is not required.

Further, the current retroactive NSR/PSD action also accounts for the increase in CO emissions associated with the historical 1995 Veneer Dryer Control Project (Veneer Dryer Project). Although CO emissions are directly associated with the Riley Stoker Boiler and do not result from operation of the Veneer Dryers themselves, the Veneer Dryer Project debottlenecked the plywood process and increased steam production from the Riley Stoker Boiler. Therefore, CO emissions from the Riley Stoker Boiler are considered in the analysis for the Veneer Dryer Project.

Finally, the permit format was updated to reflect current Department air quality permit format. Permit #2602-08 replaces Permit #2602-07.

F. Additional Information

Additional information, such as applicable rules and regulations, BACT/RACT determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each permit or change to the permit.

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Plum Creek shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter

6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.222 Ambient Air Quality Standard for Lead
8. ARM 17.8.223, Ambient Air Quality Standard for PM₁₀

Plum Creek must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Plum Creek shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.340 New Source Performance Standards. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not incorporate any equipment meeting the definition of an NSPS affected unit contained in any subpart.

Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units is not applicable to the Riley Stoker Boiler. The boiler was constructed prior to June 19, 1984, and all subsequent boiler upgrades have not constituted a modification or reconstruction of the unit triggering NSPS requirements.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This section requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Plum Creek submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 When Permit Required--Exclusions. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on

the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

- E. ARM 17.8, Subchapter 7 – Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.701 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.704 General Procedures for Air Quality Preconstruction Permitting. This air quality preconstruction permit contains requirements and conditions applicable to both construction and subsequent use of the permitted equipment.
 3. ARM 17.8.705 When Permit Required--Exclusions. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the potential to emit greater than 25 tons per year of any pollutant. Plum Creek has the potential to emit more than 25 tons per year of PM, PM₁₀, NO_x, CO, and VOC; therefore, an air quality permit is required.
 4. ARM 17.8.706 New or Altered Sources and Stacks--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. Plum Creek submitted the required permit application for the current permit action.
 5. ARM 17.8.707 Waivers. ARM 17.8.706 requires that a permit application be submitted 180 days before construction begins. This rule allows the Department to waive this time limit. The Department hereby waives this time limit.
 6. ARM 17.8.710 Conditions for Issuance of Permit. This rule requires that Plum Creek demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to ensure compliance with all applicable rules and standards. Plum Creek demonstrated compliance with all applicable rules and standards as required for permit issuance.
 7. ARM 17.8.715 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized.

The NSR/PSD rules also require that each major source and/or major modification employ BACT for each pollutant for which a new source or modification is considered major. BACT is applied on a pollutant-by-pollutant basis to each physically modified emission unit that experiences an emission increase of the pollutant of concern as a result of the project. The affected emitting units for the current permit action include 5 saws, the planer, chip bins, chippers, and the sawmill lumber dry kilns.

Even though CO emissions from the Riley Stoker Boiler increased to a level above the SER for CO as a result of the SLS project, a BACT analysis was not required for CO emissions because the Riley Stoker Boiler was not modified as part of the SLS project and emissions from the boiler are considered secondary or associated emissions specifically exempt from BACT review under the NSR/PSD program.

A PM/PM₁₀ BACT analysis for the SLS project is contained in Section IV of the permit analysis.

8. ARM 17.8.716 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
 9. ARM 17.8.717 Compliance with Other Statutes and Rules. This rule states that nothing in the permit shall be construed as relieving Plum Creek of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.701, *et seq.*
 10. ARM 17.8.720 Public Review of Permit Applications. This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Plum Creek submitted an affidavit of publication of public notice from the November 29, 2001, issue of the Daily Inter Lake, a newspaper of general circulation in the Town of Kalispell in Flathead County, as proof of compliance with the public notice requirements.
 11. ARM 17.8.731 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
 12. ARM 17.8.733 Modification of Permit. An air quality permit may be modified for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
 13. ARM 17.8.734 Transfer of Permit. This section states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would

otherwise allow.

This facility is not a listed source, but has potential emissions greater than 250 tons per year; therefore, the facility is major. The current permit action requires the facility to undergo NSR/PSD review as described in Section I.B. of Permit #2602-08.

- G. ARM 17.8, Subchapter 9 – Permit Requirements for Major Stationary Sources or Major Modifications Locating Within Nonattainment Areas, including, but not limited to:

ARM 17.8.906 Baseline for Determining Credit for Emissions and Air Quality Offsets. (1) This section specifies that emission offsets in nonattainment areas are required to be in the form of, and against, actual emissions. (2) Where the emission limitation under the Montana SIP allows greater emissions than the actual emissions of the source, emission offset credit will be allowed only for control below the actual emissions. (6) All emission reductions claimed as offset credit shall be federally enforceable. (7) Emission offsets may only be obtained from the same source or other sources in the same nonattainment area. (9) In the case of emission offsets involving sulfur dioxide, particulates, and carbon monoxides, area-wide mass emission offsets are not acceptable and the applicant shall perform atmospheric simulation modeling to ensure that the emission offsets provide a positive net air quality benefit. However, the Department may exempt the applicant from the atmospheric simulation modeling requirement if the emission offsets provide a positive net air quality benefit, are obtained from an existing source on the same premises or in the immediate vicinity of the new source, and the pollutants disperse from substantially the same effective stack height. The Department hereby exempts Plum Creek from these modeling requirements. (10) Credits for an emission reduction can be claimed to the extent that the Department has not relied on it in issuing any air quality preconstruction permit under subchapters 7, 8, 9 and 10, or the Department has not relied on it in a demonstration of attainment or reasonable further progress.

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
 - a. Potential to Emit (PTE) > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. Sources with the PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2602-08 for Plum Creek, the following conclusions were made.
 - a. The facility's PTE is greater than 100 tons/year for PM, PM₁₀, CO, and NO_x.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.

- d. This facility is not subject to any current NSPS.
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source, nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Plum Creek is a major source of emissions as defined under Title V. Operating Permit #OP2602-00 was issued final and effective on January 14, 2000. Plum Creek is subject to all recordkeeping, monitoring, and reporting requirements as stated in Operating Permit #OP2602-00.

III. Emission Inventory

Emission Inventory--Permit #2602-07

Calculations supporting emission estimates for sources not affected by this permitting action are contained in the analysis for Permits #2602-05 and 2602-06. The current permit action is retroactive for the 1989 SLS project and the 1995 Veneer Dryers Control Project; therefore, all emission estimates for Permit #2602-08 are already contained in the facility-wide emission inventory below.

Emission Inventory - Permit #2602-08

	PM	PM-10	NO _x	VOC	CO	SO _x	
Hog Fuel Boiler	49.30	49.30	452.82	22.12*	2216.28*	7.54	
Veneer Dryers	55.19	55.19	12.79	0.00	0.00	0.00	
Log Debarking (sawmill and plywood)	4.25	2.34	0.00	0.00	0.00	0.00	
Block Sawing (Sawmill and Plywood)		8.50	4.68	0.00	0.00	0.00	0.00
Sawmill Chip Bin Cyclone	11.30	5.65	0.00	0.00	0.00	0.00	
Planer Shavings Bin Cyclone	71.83	35.92	0.00	0.00	0.00	0.00	
Fines Cyclone	5.87	36.92	0.00	0.00	0.00	0.00	
Sanderdust Silo Baghouse	1.40	1.40	0.00	0.00	0.00	0.00	
Sander Cyclone Baghouse	27.02	27.02	0.00	0.00	0.00	0.00	
Sawline Baghouse	3.90	3.90	0.00	0.00	0.00	0.00	
Dry Fuel Baghouse	3.77	3.77	0.00	0.00	0.00	0.00	
Hog Fuel Pile & Fuel Bunker	24.18*	9.07*	0.00	0.00	0.00	0.00	
Plywood Chips Truck Loadout	9.54	3.39	0.00	0.00	0.00	0.00	
Sawmill/Planer Chips Truck Loadout	10.67	3.79	0.00	0.00	0.00	0.00	
Fines Truck Loadout	24.19	8.71	0.00	0.00	0.00	0.00	
Planer Shavings Truck Loadout	30.00	18.00	0.00	0.00	0.00	0.00	
Fugitive Road Dust	68.10	24.51	0.00	0.00	0.00	0.00	
Remanufacturing Baghouse	15.02	15.02	0.00	0.00	0.00	0.00	
Remanufacturing Jointer Bin	4.40	1.58	0.00	0.00	0.00	0.00	
Remanufacturing Chipper Bin	8.87	3.19	0.00	0.00	0.00	0.00	
Log Yard Emissions	8.16	0.35	0.00	0.00	0.00	0.00	
Total	445.46	313.69	452.82	34.91	1401.60	7.54	

* The change in these emissions from Permit #2602-06 represents a change in the emission factors used for estimating emissions as well as a change in the allowable emissions as a result of this permitting action. Estimated emissions increases resulting from this permitting action are listed in Section I.E of the permit analysis.

Hog Fuel Boiler

Production Rate 140000 lbs steam/hr
 Heating Input 140000 lbs steam/hr * 1204 Btu/lb steam / 75% efficiency = 224.75 MMBtu/hr
 Heating Value 4895 Btu/lb hog fuel

Hog Fuel Combusted 225 MMBtu/hr / 4895 Btu/lb hog fuel * 0.0005 ton/lb = 22.96 tons hog fuel/hr

PM Emissions

Emission Factor 0.05 lbs/MMBtu {Permitted Limit}
= 0.49 lbs/ton hog fuel
PM = 0.05 lbs/MMBtu * 225 MMBtu/hr * 8760 hr/yr * 0.0005 ton/lb = 49.30 ton/year

PM-10 Emissions

Emission Factor 0.05 lbs/MMBtu {Permitted Limit}
= 0.49 lbs/ton hog fuel
PM = 0.05 lbs/MMBtu * 225 MMBtu/hr * 8760 hr/yr * 0.0005 ton/lb = 49.30 ton/year

NO_x Emissions

Emission Factor 0.46 lb/MMBtu {Permitted Limit}
= 4.83 lbs/ton hog fuel
NO_x = 0.46 lb/MMBtu * 225 MMBtu/hr * 8760 hr/yr * 0.0005 ton/lb = 452.82 ton/year

CO Emissions

Emission Factor 506 lb/hr {Permitted Limit}
CO = 506 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2216.28 ton/year

SO₂ Emissions

Emission Factor 0.075 lbs/ton hog fuel {AP-42 , Table 1.6-2 rev 7/93}
SO₂ = 0.075 lbs/ton hog fuel * 23 tons hog fuel/hr * 8760 * 0.0005 ton/lb = 7.54 ton/year

VOC Emissions

Emission Factor 0.220 lbs/ton hog fuel {AP-42 , Table 1.6-3 rev 7/93}
VOC = 0.220 lbs/ton hog fuel * 23 tons hog fuel/hr * 8760 * 0.0005 ton/lb = 22.12 ton/year

Lead Emissions

Emission Factor 1.6E-05 lbs/ton hog fuel {AP-42 , Table 1.6-1 rev 7/93}
VOC = 0.00002 lbs/ton hog fuel * 23 tons hog fuel/hr * 8760 * 0.0005 ton/lb = 1.5E-03 ton/year

Log Yard Emissions (Increase From Air Knife Separator)

Production Rate 635040 tons/year {Permitted Limit @ 2940 hr/yr and 360 cu}

PM Emissions

Emission Factor 0.02 lb/ton {Assume same as debarking}
Control Efficiency 90%
PM = 0.02 lb/ton * 635040 tons/year * (1-0.90) * 0.0005 ton/lb = 0.64 ton/year

PM-10 Emissions

Emission Factor 0.011 lb/ton {Assume same as debarking}
Control Efficiency 90%
PM-10 = 0.01 lb/ton * 635040 tons/year * (1-0.90) * 0.0005 ton/lb = 0.35 ton/year

Hog Fuel Handling and Fuel Bunker

Production Rate 201500 ton/year {Company information in Permit Application #2602-07 includes fuel combusted in boiler and fuel sold}

PM Emissions

Emission Factor 0.24 lb/ton {Permit App. #2602-07 p. 15}
PM = 0.24 lb/ton * 201500 ton/year * 0.0005 ton/lb = 24.18 ton/year

PM-10 Emissions

Emission Factor 0.09 lb/ton {Permit App. #2602-07 p. 14}
PM-10 = 0.09 lb/ton * 201500 ton/year * 0.0005 ton/lb = 9.07 ton/year

Estimation of previous allowable using new emission factors

Production Rate 199700 ton/year {Company information in Permit Application #2602-07 includes fuel combusted in boiler and fuel sold}

PM Emissions

Emission Factor 0.24 lb/ton {Permit App. #2602-07 p. 15}
PM = 0.24 lb/ton * 199700 ton/year * 0.0005 ton/lb = 23.96 ton/year

PM-10 Emissions

Emission Factor 0.09 lb/ton {Permit App. #2602-07 p. 14}
PM-10 = 0.09 lb/ton * 199700 ton/year * 0.0005 ton/lb = 8.99 ton/year

Log Debarking

Production Rate 850000 tons log/year {Permitted Allowable}

PM Emissions

Emission Factor 0.02 lb/ton {FIRE v 5.0, 30700801}
Control Efficiency 50% {water sprays}
PM = 0.02 lb/ton * 850000 tons log/year * (1-0.5) * 0.0005 ton/lb = 4.25 ton/year

PM-10 Emissions

Emission Factor 0.011 lb/ton {FIRE v 5.0, 30700801}
Control Efficiency 50% {water sprays}
PM = 0.01 lb/ton * 850000 tons log/year * (1-0.5) * 0.0005 ton/lb = 2.34 ton/year

Block Sawing

Production Rate 850000 tons log/year {Permitted Allowable}

PM Emissions

Emission Factor 0.04 lb/ton {Department Information}
Control Efficiency 50%
PM = 0.04 lb/ton * 850000 tons log/year * (1-0.5) * 0.0005 ton/lb = 8.50 ton/year

PM-10 Emissions

Emission Factor 0.022 lb/ton {Department Information}
Control Efficiency 50%
PM = 0.02 lb/ton * 850000 tons log/year * (1-0.5) * 0.0005 ton/lb = 4.68 ton/year

Fugitive Road Dust {Increase From Log Trucks Due to Increased Log Tonnage}

Production Rate 1350 VMT {Increase due to increased log tonnage}

PM Emissions

Emission Factor 7 lb/ton {Department Information}
Control Efficiency 85% {water & chemical suppressant}
PM = 7.00 lb/ton * 1350 VMT * (1-0.9) * 0.0005 ton/lb = 0.71 ton/year

PM-10 Emissions

Emission Factor 2.5 lb/ton {Department Information}
Control Efficiency 85% {water & chemical suppressant}
PM = 2.50 lb/ton * 1350 VMT * (1-0.9) * 0.0005 ton/lb = 0.25 ton/year

IV. BACT Determination

A BACT determination is required for each new or altered source. Plum Creek shall install on the new or altered source the maximum air pollution control capability which is technically practical and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by Plum Creek in Permit Application #2602-08, addressing some available methods of controlling PM/PM₁₀ emissions from the 1989 SLS Project at the Plum Creek facility. Affected units for the project include 5 saws, the planer, chip bins, chippers, and the sawmill lumber dry kilns.

Emissions from the Riley Stoker Boiler are not included in the BACT analysis because the boiler existed prior to installation and operation of the SLS project and the boiler itself was not modified to accommodate the SLS project. Increased emissions from the boiler are considered associated emissions for the purposes of the PSD permitting program and are not subject to BACT review.

The Department reviewed the methods proposed by Plum Creek, as well as previous BACT

determinations. A detailed BACT review for each affected source, including a review of all available control technologies for each source, is contained below.

A. Saws

Five new saws were installed at the evergreen facility as part of the SLS Project. The bucking saw cuts debarked logs into 8 or 10 foot long blocks. The blocks then pass through a twin bandmill, which cuts off the logs right and left rounded edges. The rounded slabs are sent through a horizontal saw and board edger. The cants, square logs left over from cutting the round sides off, are sent to the gang saw, which cuts the cants into boards 2 inches thick and 4, 6, or 8 inches wide. Except for the bucking saw, all saws from the SLS project are located inside a building, which captures emissions.

Available technologies for the control of particulate emissions from sawing operations such as those associated with the SLS Project include electrostatic precipitators (ESPs), bag filters or baghouse control, wet scrubber control, cyclone control, building enclosure, and no additional control technology.

As previously stated, all SLS Project saws, except the bucking saw, are contained in a building. Because Plum Creek currently employs building enclosure control for these sources and because building enclosures are an effective, technically practical, and economically feasible control option for sources of this type, the Department determined that building enclosure constitutes BACT for these sources.

The bucking saw is located outside and currently does not use any additional control equipment. The circular blade of the bucking saw is 6 feet in diameter making it difficult to capture particulate emissions. A slotted hood is needed to create enough vacuum to capture PM₁₀. The following control technologies were reviewed for the bucking saw:

1. Electrostatic Precipitator (ESP) - An ESP charges particles and then forces them out of the air stream by passing them through a charged field. ESPs are very efficient at removing small particles with removal efficiencies commonly ranging from 95 to 99%.

ESP's can achieve very high control efficiencies of particulate matter. However, the installation and operation costs of the ESP are considerably higher than similar control technologies. Therefore, the Department determined that ESP control does not constitute BACT for bucking saw operations.

2. Baghouse - Fabric filters can be used to collect particulate emissions. The air stream passes through the fabric filter and the filter cake that forms on the bags collects the dust. Baghouses are very efficient at removing small particles, with removal efficiencies commonly ranging from 95 to 99%.

As previously stated, a baghouse is technically feasible for application to the bucking saw. However, as detailed in the bucking saw control cost analysis in Permit Application #2602-08, baghouse control is economically infeasible for the saw at \$44,467/ton of particulate captured. Therefore, the Department determined that baghouse control does not constitute BACT for bucking saw operations.

3. Wet Scrubber - A wet scrubber removes particles by impaction and interception.

Wet scrubbers are typically installed when the collected material can be used in a wet form or the material is easier to handle in a wet form. Efficiencies for wet scrubbers range from 65 to 95 percent depending on the particle size.

Wet scrubbers have the disadvantage of trading an air quality problem for a potential water quality problem. The water from the scrubber must be processed before reuse or discharge. Also, a scrubber capable of handling the air flows from the press vents would require high capital and operating costs. For these reasons, and based on the relatively low potential particulate emissions from the bucking saw, a wet scrubber will not constitute BACT in this case.

4. Cyclone - A particle laden air stream enters a cyclone tangentially, forcing the gas to move in a vortex shape. This motion is called cyclonic motion, which is a spinning type of motion similar to the motion seen in the vortex of a whirlpool or a tornado. A cyclone removes particles from an air stream by three mechanisms created in the vortex; centrifugal force, gravitational force, and drag force.

Operation of a cyclone to collect particulate matter from the bucking saw operation is technically feasible; however, based on the relatively low potential particulate emissions from the bucking saw and relatively high operating and maintenance costs associated with cyclone control, a cyclone does not constitute BACT in this case.

5. Enclosure - A building enclosure around the bucking saw would be required to accommodate a continuous stream of logs into and out of the building. This accommodation would allow a significant amount of particulate to escape the enclosure. Building enclosure is assumed to provide approximately 40% control efficiency.

A building enclosure is a technically feasible control option for the bucking saw. However, as detailed in the bucking saw control cost analysis in Permit Application #2602-08, building enclosure control is economically infeasible at \$5001/ton of particulate captured. Therefore, building enclosure will not constitute BACT in this case.

6. No Additional Control - The bucking saw is located outdoors and does not currently utilize any emission controls. Based on the relatively low potential emissions from the bucking saw, the Department determined that no additional control and proper operation and maintenance will constitute BACT for the bucking saw.

B. Planer

The planer surfaces dried lumber using four revolving cutter heads positioned on all four sides of the lumber. Each cutter head has 20 high-speed knives that smooth the wood surface.

Available technologies for the control of particulate emissions from planer operations such as that associated with the SLS Project include ESPs, bag filters or baghouse control, wet scrubber control, cyclone control, building enclosure, and no additional control technology.

The planer at Plum Creek currently utilizes a cyclone and a baghouse, in tandem, for control of particulate emissions. Because Plum Creek currently utilizes in tandem baghouse and cyclone technology for the control of particulate emissions from the planer and because these technologies are highly efficient and technically practical means for controlling

particulate emissions from this type of source, the Department determined that continued operation and maintenance of the existing controls will constitute BACT for this source.

C. Chip Bins

New chip bins were installed as part of the SLS Project. Plum Creek currently utilizes a cyclone for the control of particulate from the chip bins. Available technologies for the control of particulate emissions from chip bins, such as those associated with the SLS Project, include ESPs, bag filters or baghouse control, wet scrubber control, cyclone control, building enclosure, and no additional control technology.

1. ESP - ESP's can achieve very high control efficiencies of particulate matter. However, the installation and operation costs of the ESP are considerably higher than similar control technologies. Therefore, the Department determined that ESP control does not constitute BACT for chip bin operations.
2. Baghouse - due to the relatively low potential particulate emissions from the chip bins, the Department determined that baghouse control is economically infeasible for the chip bins. Therefore, the Department determined that baghouse control will not constitute BACT for this source.
3. Wet Scrubber - wet scrubbers have the disadvantage of trading an air quality problem for a potential water quality problem. The water from the scrubber must be processed before reuse or discharge. Also, a scrubber capable of handling the air flows from the press vents would require high capital and operating costs. For these reasons, and based on the low potential particulate emissions from the chip bins, a wet scrubber does not constitute BACT in this case.
4. Cyclone - Plum Creek currently uses a cyclone to collect particulate emissions resulting from the chip bins operation. Therefore, operation of a cyclone to collect particulate matter from chip bins operation is technically feasible. Further, after review of similar source BACT determinations, the Department determined that continued use and maintenance of the cyclone constitutes BACT for these sources.
5. Enclosure - A building enclosure is a technically feasible control option for the chip bins. However, because Plum Creek currently employs cyclone control and because cyclone control is an efficient and technically practical control technology, installation of a building enclosure for the chip bins will not constitute BACT in this case.
6. No Additional Control - The chip bins currently utilize a cyclone for the control of particulate emissions. Because Plum Creek currently utilizes cyclone control and because the Department determined that cyclone control is efficient and technically practical, no additional controls does not constitute BACT in this case.

D. Lumber Dry Kilns

Four steam heated dry kilns, two double track and two single track, were installed as part of the SLS Project. The lumber is dried by steam heat that is circulated by large fans through radiator-type coils through each lumber stack. Moisture in the wood is evaporated and vented back to the atmosphere.

Available technologies for the control of particulate emissions from lumber dry kiln operations, such as those associated with the SLS Project, include electrostatic precipitators

(ESPs), bag filters or baghouse control, wet scrubber control, cyclone control, and no additional control technology.

1. ESP - ESP's can achieve very high control efficiencies of particulate matter. However, the installation and operation costs of the ESP are considerably higher than similar control technologies. Therefore, the Department determined that ESP control does not constitute BACT for lumber dry kiln operations.
2. Baghouse - baghouse control is economically infeasible for lumber dry kiln operations. Therefore, the Department determined that baghouse control does not constitute BACT in this case.
3. Wet Scrubber - wet scrubbers have the disadvantage of trading an air quality problem for a potential water quality problem. The water from the scrubber must be processed before reuse or discharge. Also, a scrubber capable of handling the air flows from the press vents would require high capital and operating costs. For these reasons, and based on the relatively low potential particulate emissions from the lumber dry kiln operations, a wet scrubber does not constitute BACT in this case.
4. Cyclone - operation of a cyclone to collect particulate matter from the lumber dry kiln operation is technically feasible; however, due to the relatively high operating and maintenance costs associated with cyclone control, a cyclone does not constitute BACT in this case.
5. No Additional Control - The lumber dry kilns currently do not use any additional particulate control technology. After review of similar source BACT determinations the Department determined that no additional controls for particulate emissions constitutes BACT for this source.

E. Chippers

The chippers chip waste-wood into smaller pieces for sale to paper and pulp mills. The chippers installed as part of the SLS Project are contained inside a building. Available technologies for the control of particulate emissions from chipper operations such as that associated with the SLS Project include ESPs, bag filters or baghouse control, wet scrubber control, cyclone control, building enclosure, and no additional control technology.

Plum Creek currently incorporates a building enclosure for the control of particulate emissions from the chipper operations. Because Plum Creek currently utilizes an enclosure for the control of particulate emissions from the chipper and because enclosure is a highly efficient and technically practical means for controlling particulate emissions from this type of source, the Department determined that building enclosure will constitute BACT for this source.

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

V. Existing Air Quality

At the time of the SLS project, the Evergreen area was designated as attainment/unclassified for all pollutants. The area was later re-designated as a PM₁₀ nonattainment area on November 15, 1990, and the Department was required to develop a SIP to bring the area back into compliance with the NAAQS for PM₁₀.

Because emissions from the SLS project were included under the SIP, the Department determined that the project is not contributing to any further deterioration of air quality in the Evergreen area.

VI. Air Quality Impacts

As part of NSR/PSD review, a source is required to demonstrate compliance with the NAAQS and the Montana Ambient Air Quality Standards (MAAQS) and all applicable Class I and Class II increments through air dispersion modeling. However, the Evergreen area has, since construction and initial operation of the SLS project, been covered under a SIP incorporating a control plan and limits for PM/PM₁₀ emission sources in the area (including the Plum Creek facility). Further, air dispersion modeling demonstrating compliance with all applicable CO requirements was conducted as part of Permit Action #2602-07 (including SLS project emissions). Therefore, the Department determined that air dispersion modeling for the SLS project is unnecessary and that the project does not have any significant impact on existing air quality in the Evergreen area.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications. The analysis was completed January 9, 1997.

VIII. Environmental Assessment

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

Department of Environmental Quality
Permitting and Compliance Division
Air and Waste Management Bureau
1520 E. Sixth Ave., P.O. Box 200901
Helena, Montana 59620

FINAL ENVIRONMENTAL ASSESSMENT (EA)

ISSUED TO: Plum Creek Manufacturing, LP
Evergreen Facility
P. O. Box 5257
Kalispell, MT 59903

Air Quality Permit number: 2602-08

Preliminary Determination Issued: July 3, 2002

Department Decision Issued: July 25, 2002

Permit Final: August 10, 2002

1. *Legal Description of Site:* Plum Creek Manufacturing, LP – Evergreen’s (Plum Creek) plywood plant is located approximately 3 miles northeast of Kalispell, Montana near the Evergreen subdivision in the SW ¼ of Section 33, Township 29 North, Range 21 West, Flathead County, Montana.
2. *Description of Project:* On May 30, 2002, the Department of Environmental Quality (Department) received a complete New Source Review (NSR) Prevention of Significant Deterioration (PSD) permit application for the historical 1989 Small Log Sawmill (SLS) project at the Plum Creek facility.

Prior to the SLS project, lumber was air-dried, surfaced, and shipped on a seasonal basis (April – September) because Plum Creek did not have a lumber dry kiln for drying operations. The SLS project involved the installation of the lumber dry kilns and the replacement of aging equipment with new equipment.
3. *Objectives of Project:* The objective of the original SLS project was to update existing operations at the site and allow for year-round operations. The objective of the current project (permitting the SLS Project) is to bring the facility into compliance with PSD permitting requirements.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Plum Creek demonstrated compliance with all applicable rules and regulations as required for permit issuance at this time. Therefore, the “no-action” alternative was eliminated from further consideration. Since the SLS project has been in operation since 1989, the “no action” alternative would mean that Plum Creek would be required to continue operating out of compliance with the NSR program.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a Best Available Control Technology (BACT) analysis, would be included in Permit #2602-08.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats				X		Yes
B	Water Quality, Quantity, and Distribution				X		Yes
C	Geology and Soil Quality, Stability and Moisture				X		Yes
D	Vegetation Cover, Quantity, and Quality				X		Yes
E	Aesthetics				X		Yes
F	Air Quality				X		Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources				X		Yes
H	Demands on Environmental Resource of Water, Air and Energy				X		Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

- A. Terrestrial and Aquatic Life and Habitats
- B. Water Quality, Quantity, and Distribution
- C. Geology and Soil Quality, Stability, and Moisture
- D. Vegetation Cover, Quantity, and Quality
- E. Aesthetics
- G. Unique, Endangered, Fragile, or Limited Environmental Resources
- H. Demands on Environmental Resource of Water, Air, and Energy

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not have any adverse effect on the area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. The current permit action would impose additional operating conditions that have not been observed for the past 12 years, which may result in environmental improvement. No additional impacts would result from the current permit action.

F. Air Quality

The Clean Air Act (CAA), which was last amended in 1990, requires the United States Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA established two types of NAAQS, Primary and Secondary. Primary Standards are limits set to protect public health, including, but not limited to, the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary Standards are limits set to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Permit #2602-08 would contain conditions and limitations, which would require compliance with all applicable air quality standards, including both primary and secondary standards.

Further, since construction and operation of the SLS project, all sources of PM/PM₁₀ located in the Evergreen area, including Plum Creek and the SLS project, have been covered under a state implementation plan (SIP) for the purpose of bringing the area back into compliance with the NAAQS for PM₁₀. In addition, since construction and operation of the SLS project, the Plum Creek facility has undergone air dispersion modeling demonstrating compliance with CO and NO_x NAAQS.

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not have any adverse effect on the air quality of the area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. The current permit action would impose additional operating conditions that have not been observed for the past 12 years, which may result in air quality improvement. No additional air quality impacts would result from the current permit action.

I. Historical and Archaeological Sites

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not have any effect on any historical and archeological sites in the area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. No additional impacts would result from the current permit action.

Further, according to past correspondence from the Montana State Historic Preservation Office, there is low likelihood of disturbance to any known archaeological or historic site, given previous industrial disturbance within the area. Therefore, the current permit action would have no adverse effects on any known historic or archaeological site since the area has contained an industrial facility in the past.

J. Cumulative and Secondary Impacts

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not result in any cumulative or secondary physical or biological impacts to the human environment of the Evergreen area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. The current permit action would impose additional operating conditions that have not been observed for the past 12 years, which may result in improvement to the physical and biological attributes of the area. No additional impacts would result from the current permit action. However, continued operation of the SLS project at the Plum Creek facility would result in minor cumulative and secondary impacts to the physical and biological human environment of the Evergreen area.

Air pollution from the facility would be controlled by Department-determined BACT and conditions in Permit #2602-08. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #2602-08 and the SIP covering PM₁₀ emission sources in the area.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue				X		Yes
D	Agricultural or Industrial Production				X		Yes
E	Human Health				X		Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity				X		Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECENOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

- A. Social Structures and Mores
- B. Cultural Uniqueness and Diversity
- C. Local and State Tax Base and Tax Revenue
- D. Agricultural or Industrial Production
- F. Access to and Quality of Recreational and Wilderness Activities
- G. Quantity and Distribution of Employment
- H. Distribution of Population
- J. Industrial and Commercial Activity

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not have any effect on the agricultural and industrial production of the area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. The current permit action would not increase any industrial production or displace any agricultural land uses. No additional impacts would result from the current permit action.

- E. Human Health

The Clean Air Act (CAA), which was last amended in 1990, requires EPA to set NAAQS for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of NAAQS, Primary and Secondary. Primary Standards set limits to protect public health, including, but not limited to, the health of “sensitive” populations such as asthmatics, children, and the elderly. Secondary Standards are limits set to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings. Permit #2602-08 would contain conditions and limitations, which would require compliance with all applicable air quality standards, including the primary and secondary standards.

Further, since construction and operation of the SLS project, all sources of PM/PM₁₀ located in the Evergreen area, including Plum Creek and the SLS project, have been covered under a SIP. The SIP identifies limitations and conditions for facilities that will help bring the area back into compliance with the NAAQS for PM₁₀. In addition, since construction and operation of the SLS project, the Plum Creek facility has undergone air dispersion modeling which demonstrates compliance with CO and NO_x NAAQS.

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not have any effect on the health of the human population in the area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. No additional impacts would result from the current permit action.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Demands for government services as a result of this project would be minor.

K. Locally Adopted Environmental Plans and Goals

The Evergreen area is classified as a PM₁₀ nonattainment area. Since construction and operation of the SLS project all PM₁₀ emission sources in the area, including Plum Creek's SLS project, have been covered under a SIP for the purpose of bringing the area back into compliance with the PM₁₀ NAAQS. Permit #2602-08 and the SIP contain emission limits and other requirements ensuring that the area achieves the goal of PM₁₀ NAAQS compliance.

The Department is not aware of any other locally adopted environmental plans or goals. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

The current permit action would be a historical NSR/PSD action retroactively analyzing the 1989 SLS project. Retroactive review of the SLS project would not result in any cumulative or secondary economic and social effects on the human environment of the Evergreen area because the SLS project has been operating for the past 12 years and any impacts resulting from the SLS project would have been realized. No additional social and economic impacts would result from the current permit action. However, continued operation of the SLS project at the Plum Creek facility would result in minor cumulative and secondary economic and social impacts on the human environment of the Evergreen area.

The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in Permit #2602-08 and the SIP covering PM₁₀ emission sources in the area.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is a retroactive review of the 1989 SLS project and the 1995 Veneer Dryer Project at the Plum Creek facility. Permit #2602-08 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air and Waste management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: M. Eric Merchant, MPH
Date: June 27, 2002