

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
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TECHNICAL REVIEW DOCUMENT FOR OPERATING PERMIT #OP2809-01

Louisiana-Pacific Corporation - Belgrade Facility
400 Jack Rabbit Lane
Belgrade, MT 59714
SE ¼, Section 2, Township 1 North, Range 4 East, Gallatin County

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 5, Method 9
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		As Applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
- ARM Subchapter 7 Preconstruction Permitting	X		Permit #2809-05
- New Source Performance Standards (NSPS)		X	
- National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	
- Maximum Achievable Control Technology (MACT)		X	
- Major New Source Review (NSR)		X	
- Prevention of Significant Deterioration (PSD)		X	
- Risk Management Plan Required (RMP)		X	
- Acid Rain Title IV		X	
- State Implementation Plan (SIP)	X		General SIP

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the United States Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Louisiana-Pacific (L-P) on June 6, 1996, and additional submittals received by the Department of Environmental Quality (Department) on March 3, 1999, March 8, 1999, March 18, 2002, and May 17, 2002.

B. Facility Location

L-P's Belgrade facility is located north of Interstate 90 at SE ¼, Section 2, Township 1 North, Range 4 East, Gallatin County, in the town of Belgrade, Montana.

C. Facility Background Information

The Belgrade facility produces stud grade lumber. The studmill falls under Standard Industrial Classification (SIC) code 2421 and consists of a sawmill, drying kilns and planer. The facility is supported by two boilers for the production of steam used in the drying process. The main boiler is a Wellons Wicks hog fuel fired boiler rated at 16,000 pounds/hour of steam. As a backup, L-P also operates a Cleaver Brooks natural gas fired boiler with a maximum capacity of 13,000 pounds/hour of steam.

The Wellons boiler was installed in 1969 under Preconstruction Permit #84-122369. Permit #2809-00 was issued on February 4, 1994, for the installation of a multicloner on the Wellons boiler and replaced Permit #84-122369. Permit #2809-01 was issued on November 19, 1994, for the installation of the Cleaver Brooks boiler.

The air quality in the area surrounding the Belgrade facility is classified as attainment/unclassifiable and the Montana State Implementation Plan does not impose any operating restrictions on the facility.

The Montana Private Property Assessment Act requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, Montana Code Annotated (MCA), the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications. The checklist was completed on June 7, 2002.

D. Current Permit Action

On March 18, 2002, the Department received a letter from L-P requesting a change in the responsible official for the Belgrade facility. In accordance with the Administrative Rules of Montana (ARM) 17.8.1225, the Department updated Section I, General Information, of the operating permit to identify Bill Flemming as the responsible official for the L-P Belgrade facility. In addition, on May 17, 2002, the Department received notification of several other changes to the Title V operating permit. The requested changes include the following:

- A change in the visual survey language for the Shavings Truck Loading (EU7) operations. The visual survey will now be required once per week at the shavings truck loading *area* rather than once per week while the shavings truck(s) is actually being loaded.
- A change in the boiler maintenance reporting requirement in Section III.B.12.c. The reporting requirement now requires that L-P must only report any boiler and/or multicloner maintenance that would be expected to affect air emissions rather than a summary of all maintenance activities performed on the

boiler an/or multiclone.

- The addition of 2 new insignificant emitting units to the insignificant emitting unit list. L-P requested that the Department add the Hog Fuel Bin Cyclone and the Cambio Log Debarker to the insignificant emitting unit list.

Because the Cambio Log Debarker (EU10) and the Hog Fuel Bin Cyclone (EU11) have the potential to emit greater than 5 tons per year of particulate matter these operations are considered significant emitting units. The Department added log debarking operations – Cambio Log Debarker (EU10) to Section III.F of the operating permit and the Hog Fuel Bin Cyclone (EU11) to Section III.E of the operating permit.

In accordance with ARM 17.8.1227, the current permit action is a significant modification to air quality Operating Permit #OP2809-00. Operating Permit #**OP2809-01** replaces Operating Permit #OP2809-00.

E. Compliance Designation

The L-P facility was last inspected on November 15, 2001, and found to be in compliance with all applicable requirements. The Department has no reason to believe that the facility is not in compliance with all applicable requirements at the time of issuance of the operating permit.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

The facility receives raw logs that are sorted and stored prior to being debarked and cut to length. The logs are then processed through various saws into the proper dimension. The rough studs are then dried in the kilns and planed to produce the finished product.

Steam for the facility is provided by a Wellons-Wicks hog fuel fired boiler rated at 16,000 pounds/hour of steam. As a backup, L-P also operates a Cleaver Brooks natural gas fired boiler with a maximum capacity of 13,000 pounds/hour of steam.

By-products from the stud production include: Bark which is separated into hog fuel for the boiler and beauty bark to be sold off-site; Sawdust which is collected via cyclone and loaded onto trucks for outside sale; Shavings from the planer and moulder which are collected via cyclone and sold off-site; and chips which are collected and sold off-site.

B. Emission Units and Pollution Control Device Identification

The emission units regulated by this permit are the following (ARM 17.8.1211):

Emissions Unit ID	Description	Pollution Control Device/Practice
EU1	Wellons Boiler	Multiclone
EU2	Cleaver Brooks Boiler	None
EU3	Lumber Dry Kiln	None
EU4	Planer Cyclone	Cyclone acts as control device
EU5	Shavings Truck Bin Cyclone	Cyclone acts as control device
EU6	Molder Cyclone	Cyclone acts as control device
EU7	Shavings Truck Loading	None
EU8	Log Sawing	None
EU9	Vehicle Traffic Fugitives	Water or Chemical Dust Suppressants
EU10	Log Debarking Operations – Cambio Log Debarker	None
EU11	Hog Fuel Bin Cyclone	Cyclone acts as control device

C. Categorically Insignificant Sources/Activities

The following table of insignificant sources and/or activities were provided by L-P to assist in understanding the facility’s layout. Because there are no requirements to update such a list, the emissions units and/or activities may change from those specified in the table.

Emissions Unit ID	Description
IEU1	Fuel Bin Cyclone
IEU2	Sawdust Bin Cyclone
IEU3	Antifreeze Storage and Handling
IEU4	Ash Handling
IEU5	Beauty Bark Handling
IEU6	Vehicle Fueling Tanks (Gasoline and Diesel)
IEU7	Chipping and Chip Handling
IEU8	Honing Oil Storage and Handling
IEU9	Space Heaters
IEU10	Knife Sharpening
IEU11	Log Debarking
IEU12	Lumber Stenciling
IEU13	Motor Oil Storage and Handling

Emissions Unit ID	Description
IEU14	Rail Car Loading with Chips
IEU15	Sawdust Truck Bin Venting
IEU16	Sawdust Truck Loading
IEU17	Shavings Truck Bin Cyclone
IEU18	Transmission Fluid Storage and Handling
IEU19	Used Oil Storage and Handling
IEU20	Sawdust Storage Pile (Hog Fuel Storage Pile)

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

Wellons Boiler (EU1)

The Department has determined that the emission limit that applies to the Wellons boiler is 7.97 lbs/hour from Preconstruction Permit #2809-01. This limit applies because it is more stringent than the limit imposed by applying the fuel burning equation for new sources found in ARM 17.8.309.

Cleaver Brooks Boiler (EU2)

The Cleaver Brooks boiler is limited to 110.3 million ft³ during any rolling 12-month time period of natural gas consumed by a condition in Preconstruction Permit #2809-03. This limit was placed on the equipment to ensure that emissions are not significantly greater than those on which the permit analysis was performed.

Lumber Dry Kilns (EU3)

The Lumber Dry Kilns are subject to an opacity limit of 20% in accordance with ARM 17.8.304. Further, the Lumber Dry Kilns are subject to ARM 17.8.310 (process weight rule) as applicable.

Material Handling Cyclones – Planer Cyclone (EU4), Shavings Truck bin Cyclone (EU5), Moulder Cyclone (EU6), and Hog Fuel Bin Cyclone (EU11)

The Material Handling Cyclones are subject to an opacity limit of 20% in accordance with ARM 17.8.304. Further, the Material Handling Cyclones are subject to ARM 17.8.310 (process weight rule) as applicable.

Material Storage, Loading, Processing – Shavings Truck Loading (EU7), Log Sawing (EU8), Log Debarking – Cambio Log Debarker (EU10)

Material Storage, Loading, and Processing from the Shavings Truck Loading Area, Log Sawing operations, and Log Debarking operations at the facility are subject to an opacity limit of 20% in accordance with ARM 17.8.304. Further, these operations are subject to reasonable precautions in accordance with ARM 17.8.308 and ARM 17.8.310 (process weight rule) as applicable.

Fugitive Emissions – Vehicle Traffic (EU9)

Vehicle Traffic fugitive emissions are subject to an opacity limit of 20% and reasonable precautions in accordance with ARM 17.8.308.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor for all emissions units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of

regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emissions units.

This permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by L-P to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

Wellons Boiler (EU1)

Since replacing the multiclone controlling particulate emissions from the Wellons boiler in 1994, L-P has shown compliance with particulate and opacity limits. The Department has determined that semiannual Reference Method 9 visual observations and Stack testing in accordance with Method 5 every four years are sufficient to demonstrate compliance with the opacity and particulate limits for the boiler.

Cleaver Brooks Boiler (EU2)

The Cleaver Brooks boiler is limited to 110.3 million ft³ during any rolling 12-month time period of natural gas consumed by a condition in Preconstruction Permit #2809-03. This limit was placed on the equipment to ensure that emissions are not significantly greater than those on which the permit analysis was performed.

Dry Kilns (EU3) and Material Handling Cyclones (EU4, EU5, EU6, and EU11)

The lumber dry kilns have a very low potential to violate the particulate and opacity limits imposed by the state's general process weight and opacity rules. Emissions from the material handling cyclones are very consistent based on field observations. The cyclones do have the potential for failure, however, this failure is rarely instantaneous but occurs gradually over time because of erosion of the cyclone itself.

The Department determined that Method 9 observations as required by the Department are adequate to demonstrate continued compliance with the opacity limits for the Dry Kilns and Material Handling Cyclones.

Materials Storage, Loading, Processing: Shavings Truck Loading (EU7), Log Sawing (EU8), Log Debarking – Cambio Log Debarker (EU10)

Materials storage loading and processing operations at the facility including the above cited operations are all limited to 20% opacity, the use of reasonable precautions to limit fugitive emissions, and the process weight rule as applicable in ARM 17.8.310.

The Department determined that a Method 9 source test as required by the Department is applicable to these sources. For the purposes of compliance monitoring, L-P shall conduct a weekly visual survey of the visible emissions from the shavings truck loading area, process sawing, and log debarking operations. Conducting a visual survey does not relieve L-P of a liability for a violation documented with a Method 9.

Fugitive Emissions – Vehicle Traffic (EU9)

For the purposes of compliance monitoring, L-P shall conduct a weekly visual survey of the visible emissions from vehicle traffic. Conducting a visual survey does not relieve L-P of a liability for a violation documented with a Method 9.

C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, L-P may elect to voluntarily conduct compliance testing to confirm its compliance status.

D. Recordkeeping Requirements

L-P is required to keep all records listed in the operating permit as a permanent business record for at least five years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit “General Conditions” explains the reporting requirements. However, L-P is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.132, a public notice was published in the Bozeman Chronicle newspaper on or before June 10, 2002. The Department provided a public comment period on the draft operating permit from June 10, 2002, through July 10, 2002. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process.

G. Draft Permit Comments Operating Permit #OP2809-00

Permit Section	Facility Comment	Department Response
Section I, General Information	Incorrect Telephone Number for Plant Manager, Bill Flemming	Corrected in Department Decision
Section II.B.2, Wellons Boiler	Permit Condition / Limit Language	No Change, As Appears in Pre-Construction Permit #2809-02
Title V Application	Emission Factor Change	Noted, on File with the Department.
Title V Application	Incorrect Reported Equipment Capacity – Lumber Dry Kilns	Noted, on File with the Department

H. Draft Permit Comments Operating Permit #OP2809-01

Permit Section	Facility Comment	Department Response
III.C.4 – Permit #OP2809-01	Section III.C.4 lists the natural gas consumption limit on the Cleaver Brooks Boiler (EU2) as 12,600 ft ³ /hr. This limit is no longer applicable. In Preconstruction Permit #2809-03 the limit was changed from an hourly limit to an annual limit of 110.3 MMft ³ /yr. Please replace the hourly limit with the appropriate annual limit.	The Department replaced the hourly limit with the appropriate annual limit as requested.
III.C.6 – Permit #OP2809-01	Section III.C.6 limits steam flow from the Cleaver-Brooks Boiler as a	The Department replaced the compliance demonstration in Section

Permit Section	Facility Comment	Department Response
	compliance demonstration for the limit on natural gas consumption. Because the limit has been changed to an annual gas usage limit, it is more appropriate to monitor natural gas use on a monthly basis and use this to calculate the rolling 12-month total of actual natural gas usage. L-P requests that Section III.C.4 be changed to language similar to that in Section III.D.3 of Preconstruction Permit #2809-05.	III.C.6 as requested.
III.C.8 – Permit #OP2809-01	Section III.C.8 requires L-P to operate a steam flow recorder to demonstrate compliance with Section III.C.4. This requirement should be replaced with monthly recordkeeping of natural gas usage.	The Department replaced the recordkeeping requirement in Section III.C.8 as requested.
III.C.9 – Permit #OP2809-01	Section III.C.9 should be changed to require verification of the natural gas flow from the boiler rather than the steam flow.	The Department changed the requirement in Section III.C.9 as requested.
III.F.5 – Permit #OP2809-01	Section III.F.5 requires weekly visual survey of the log sawing process. Most of the sawing process occurs indoors and discussions with Warren Norton of your Department indicate that visual surveys of the sawing process itself are probably unrealistic. We request that this be changed to a weekly visual survey of the openings in the sawmill building where pollutants would actually be entering the atmosphere.	The Department modified Section III.F.5 as requested.
III.A and III.B – Technical Review Document (TRD) #2809-01	The TRD needs to be changed to reflect the requested changes to the Cleaver-Brooks Boiler boiler requirements above.	The Department modified Section III.A. and Section III.B of the TRD as requested.
III.B	Section III.B of the TRD for the Dry Kilns and Material Handling Cyclones indicates semiannual Method 9 Opacity Observations are required. Please change this analysis to reflect that Method 9 testing is only required if requested by the Department.	The Department modified Section III.B as requested.

SECTION IV. NON-APPLICABLE REQUIREMENTS ANALYSIS

Pursuant to ARM 17.8.1221, L-P requested a permit shield for all non-applicable regulatory requirements and regulatory orders identified in Table 8-1 of the permit application.

<p>ARM 17.8.734 ARM 17.8.825 ARM 17.8.826 ARM 17.8.905 ARM 17.8.906 ARM 17.8.1005 ARM 17.8.1006 ARM 17.8.1007 ARM 17.8.1220 ARM 17.8.1221 ARM 17.8.1224 ARM 17.8.1226 ARM 17.8.1227 ARM 17.80.102 ARM 17.80.103 ARM 17.80.104 ARM 17.80.106</p>	<p>source during the permit span.</p>
<p>ARM 17.8.105 ARM 17.8.106 ARM 17.8.202 ARM 17.8.204 ARM 17.8.205 ARM 17.8.206 ARM 17.8.214 ARM 17.8.230 ARM 17.8.326 ARM 17.8.717 ARM 17.8.804 ARM 17.8.828</p>	<p>These rules are applicable to the source and may contain specific requirements for compliance.</p>
<p>ARM 17.8.101 ARM 17.8.103 ARM 17.8.201 ARM 17.8.301 ARM 17.8.302 ARM 17.8.401 ARM 17.8.501 ARM 17.8.601 ARM 17.8.701 ARM 17.8.702 ARM 17.8.801 ARM 17.8.802 ARM 17.8.901 ARM 17.8.902 ARM 17.8.904 ARM 17.8.1001 ARM 17.8.1002 ARM 17.8.1004 ARM 17.8.1101 ARM 17.8.1103 ARM 17.8.1201 ARM 17.8.1202 ARM 17.8.1203 ARM 17.8.1204 ARM 17.8.1234 ARM 17.80.101</p>	<p>These rules consist of either a statement of purpose, applicability statement, regulatory definitions or a statement of incorporation by reference. These types of rules do not have specific requirements associated with them.</p>

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

As of October 9, 2002, the Department is not aware of any MACT Standards that are applicable to this source.

B. NESHAP Standards

As of October 9, 2002, the Department is not aware of any NESHAP Standards that are applicable to this source.

C. NSPS Standards

As of October 9, 2002, the Department is not aware of any NSPS Standards that are applicable to this source. The hog fuel boiler is not subject to 40 CFR Part 60, Subpart Dc, because L-P has not commenced construction, modification, or reconstruction of the boiler after June 9, 1989. The 40 CFR Part 60 (NSPS) definition of modification is "any physical change in, or change in the method of operations of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted. Although some work has been done on the boiler since the trigger date, including installation of the Hurst boiler multiclone, no changes have been made which resulted in an increase in regulated pollutants.

D. Risk Management Plan

As of October 9, 2002, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.