

**LANE REGIONAL AIR POLLUTION AUTHORITY (LRAPA)
TITLE V OPERATING PERMIT REVIEW REPORT**

McKenzie Forest Products, LLC
1651 South F Street
Springfield, Oregon 97477

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PERMITTEE IDENTIFICATION

1. McKenzie Forest Products owns and operates a veneer and plywood/panel product manufacturing facility located at 1651 South F Street in Springfield, Oregon.

FACILITY DESCRIPTION

2. McKenzie Forest Products processes logs for manufacture of veneer and plywood/panel products. Activities conducted at the facility include decking of logs, processing logs prior to peeling, peeling logs into veneer, sorting and drying veneer, and manufacture of plywood/panel products. The facility has two hog fuel boilers that produce steam used by four veneer dryers, four plywood presses, block conditioning vaults, and heat in the mill.

OPERATING SCENARIO

3. The facility has one operating scenario. McKenzie Forest Products Operating Scenario A consists of processing up to 85 million board feet of large and small diameter logs into 310,800,000 square feet 3/8" veneer and 300,000,000 square feet 3/8" basis of plywood products annually.

The industrial activities associated with this operating scenario are:

- 1) Log processing consists of log receipt and storage, debarking, sizing, conditioning, and peeling. Logs are brought to the site on log trucks, which are unloaded and sorted on the log deck, fed up ramps and conveyed to one of two areas for debarking and block sizing. Large diameter logs (>14") enter the log processing area from the north ramp and go through a debarker a two-saw block sizing machine. Small diameter logs (<14") enter the log processing area from the south ramp and proceed through a six-saw block sizing process.

Small trim ends (lily pads), which remain after sizing, are conveyed to two chippers for grinding into chips. The chips are conveyed to the chip classifier. The chip classifier sorts chips by size. Oversize chips are re-chipped, accepts are sent to the chip bin, and fines are conveyed to the fuel bin as hog fuel.

The bark removed from the logs is conveyed to two bark hogs for processing prior to conveyance to the fuel bin. Hogged bark is stored in a metal sided, enclosed fuel bin for future use in the two Dutch oven hog fuel boilers.

After the blocks are properly sized and sorted they are conveyed to the block heating vats. The blocks are sprayed with hot water to condition them prior to peeling. After the blocks are heated and softened sufficiently, they are conveyed to tow lathes for processing into veneer.

The lathes use a cutting blade to peel a thin sheet of wood from the log. The sheets of green veneer enter a belt-driven tray and are conveyed through the production line. The remaining log, or peeler core, is sold or is routed to a chipper and then to the chip classifier.

- 2) The green veneer proceeds down the production line to clippers that cut defects out of the veneer. Automated stackers sort full sheets while the remainder is conveyed for manual sorting.

- 3) Green veneer is dried in four steam-heated veneer dryers. Two wet scrubbers are used for veneer dryer particulate control. The dried veneer is then sorted and manufactured into plywood, siding, sanded, underlayment, and specialty panel products according to customer demands. Plywood production consists of coating the veneer with a phenol formaldehyde resin and gluing panels together. Panels are pressed in a cold press to initiate the glue bond, then are pressed in the hot presses.
- 4) Byproducts from the production line including waste veneer, plytrim, sawdust, and sanderdust are chipped or collected at various steps in the production process and routed to the fuel bin. Cyclones and baghouses are used for particulate control.
- 5) Two hog fuel boilers producing approximately 120,000 pounds of steam per hour supply steam to heat veneer dryers, vats, and buildings. Particulate control for the boilers consists of two multiclones.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

4. EU-1: Boilers (Boiler-1 and Boiler-2)
Both Dutch oven hog fuel boilers, rated at 60,000 pounds of steam per hour and installed in 1939 and 1940, are controlled with multiclones that were installed in 1968.
5. EU-2: Presses (P-1, P-2, P-3, P-4, P-5 and CPRS-1, CPRS-2, CPRS-3)
6. EU-3: Veneer Dryers (VD-1, VD-2, VD-3, and VD-4)
All dryers are steam heated. Dryers 1, 2, and 3 have five decks with two heating zones. Dryer 4 has four decks with three heating zones. The applicant estimates that all four dryers were installed in 1960. The dryers are controlled with two Georgia Pacific packed column scrubbers. GPS-1 was installed in 1974. GPS-2 was installed in 1998. Both scrubbers have design inlet gas flow rates of 32,000 acfm and are rated at 45% efficient.
7. EU-4: Storage Pile Fugitives
Hog fuel pile.
8. Aggregate Insignificant (EU-AI)
Aggregate Insignificant emissions include emissions sources as described below:
 - Carpentry Shop (PM/PM₁₀)
 - Truck Loading (PM)
 - Product Sealant (VOC)
 - Ink (VOC)

CATEGORICALLY INSIGNIFICANT ACTIVITIES

9. McKenzie Forest Products has the following categorically insignificant activities on site:
 - Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 20 through 32 of this chapter, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
 - Evaporative and tail pipe emissions from on-site motor vehicle operation
 - Office activities

- Janitorial activities
- Personal care activities
- Instrument calibration
- Maintenance and repair shop
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Electrical charging stations
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking
- Electric motors
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds
- Vacuum sheet stacker vents
- Emissions from wastewater discharge to publicly owned treatment works (POTW) provided the source is authorized to the POTW, not including on-site wastewater treatment and/or holding facilities
- Storm water settling basins
- Fire suppression and training
- Paved roads and paved parking lots within an growth boundary
- Health, safety, and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service
- Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems
- Non-contact steam condensate flash tanks
- Non-contact steam vents on condensate receivers, deaerators and similar equipment
- Boiler blowdown tanks
- Ash piles maintained in a wetted condition and associated handling systems and activities
- Oil/water separators in effluent treatment systems

AGGREGATE INSIGNIFICANT EMISSIONS

10. The emissions from the activities included in the aggregate insignificant emissions are as follows:

Emissions Source	Pollutants (tons/yr)		
	PM	PM ₁₀	VOC
Baghouses	0.065	0.065	0
Totals	1.0	1.0	1.0

EMISSION LIMITS AND STANDARDS

ACDP Conditions

11. The following conditions do not appear in the federal operating permit as they existed in ACDP 207510 because of reasons given below:

Performance Standards and Emission Limits, Condition 1, page 2:

McKenzie Forest Products has requested that this condition be modified to conform with the PSELs proposed in the Title V application.

The change has been approved for the reason given.

Veneer Dryer Opacity Limits, Condition 2, page 2:

McKenzie Forest Products has requested that this condition be modified for clarity and consistency with LRAPA 33-060(3)(A)(2).

The change has been approved for the reason given.

Cyclone Specific Emission Limits, Condition 7, page 3:

McKenzie Forest Products has requested that this condition be deleted and replaced with standard Title V language and PSEL.

The changes have been approved for the reason given.

Minimize Emissions, Other Conditions 2, page 3:

McKenzie Forest Products has requested that this condition be deleted and be replaced with emissions unit specific operation and maintenance requirements. The change has been approved for the reason given.

Open Burning Prohibited, Other Conditions 3, page 3:

McKenzie Forest Products has requested that this condition be deleted as an Applicable Requirement since open burning is not conducted at the plant site.

The prohibition on open burning remains in the Title V Permit as a General Condition.

Prevention of Dust, Other Conditions 4, page 3:

McKenzie Forest Products has requested that this condition be deleted and replaced with Title V language for facility wide control of fugitive particulate matter.

The change has been approved for the reason given.

Prevention of Dust, Other Conditions 5, page 4:

McKenzie Forest Products has requested that this condition be deleted and replaced with Title V language for facility wide control of fugitive particulate matter.

The change has been approved for the reason given.

Steam Production Records, Monitoring and Reporting 2, page 4:

McKenzie Forest Products has requested that this condition be included in the PSEL recordkeeping portion of the Title V permit.

The change has been approved for the given reason.

Fee Schedule 1, page 5:

McKenzie Forest Products has noted that this condition will be replaced by the Title V fee schedule.

LRAPA concurs.

PLANT SITE EMISSION LIMIT (PSEL) INFORMATION

Original Plant Site Emission Limit (PSEL)

12. **Baseline Operating Schedule**

a. Veneer Dryers:

$$24 \text{ hours/day} \times 5 \text{ days/week} \times 50 \text{ week/year} = 6,000 \text{ hours/year}$$

13. The baseline production rates were as follows:

Production or Process Parameter	Period	Rate	Units
Steam produced	Annual steam produced	811,200	Mlb-steam
Veneer dried	Annual veneer dried	163,000	MSF

14. Baseline emissions rates (tons per year):

Emissions Unit ID	PM	PM ₁₀	CO	NO _x	SO ₂	VOC
Veneer Dryers	45.6	45.6	NA	NA	NA	3.3
Press 1	0.32	0.26	NA	NA	NA	0.18
Press 2	0.32	0.26	NA	NA	NA	0.18
Press 4	0.32	0.26	NA	NA	NA	0.18
Boiler 1	95.42	90.65	26.4	62.87	2.84	26.36
Boiler 2	95.42	90.65	54.8	62.87	2.84	26.36
Cyclone 1	0.13	0.1	NA	NA	NA	NA
Cyclone 3	3.9	3.12	NA	NA	NA	NA
Cyclone 5	13	10.4	NA	NA	NA	NA
Cyclone 6	1.3	1.04	NA	NA	NA	NA
Cyclone 8	13	10.4	NA	NA	NA	NA
Fugitives	11	4.5	NA	NA	NA	NA
Aggregate Insignificant	1.0	.25	NA	NA	NA	1.0
Total	280.74	257.5	81.2	125.74	5.68	57.6

CURRENT PLANT SITE EMISSIONS LIMITS

15. The plant can be operated as much as 24 hours per day, 7 days per week, and 52 weeks per year.

16. The production rates used as a basis for determining the current PSELs:

Production or Process Parameter	Period	Rate	Units
Steam Produced	Annual	1,051,200	Mlbs steam
Veneer Dried	Max hourly	310,800	MSF 3/8 inch basis

17. The current annual PSEL (tons/yr) is shown below:

Emissions Unit ID	PM	PM ₁₀	CO	NO _x	SO ₂	VOC
Veneer Drying	21.8	21.8	NA	NA	NA	6.2
Presses	3.0	2.2	NA	NA	NA	1.66
Boilers	141.1	134.1	104.3	162.9	7.4	68.3
Veneer & Plywood Mill	54.5	43.6	NA	NA	NA	NA
Fugitive Dust	30	17.83	NA	NA	NA	NA
Aggregate Insignificant	1.0	0.25	NA	NA	NA	1.0
Total	251.3	19.8	104.3	162.9	7.4	77.2

SIGNIFICANT EMISSION RATE

18. The Plant Site Emission Limit (PSEL) increase over the baseline emissions is less than the Significant Emission Rate (SER) as defined in OAR 340-028-0110 (105) for PM, PM₁₀, CO, NO_x, VOC and SO₂ as shown below. No further air quality analysis is required for these pollutants.

Pollutant	Baseline Emissions (tons/yr)	Proposed PSEL (tons/yr)	Increase from Baseline (tons/yr)	SER (tons/yr)
Particulate, PM	280.8	250.9	- 29.9	25
Particulate, PM ₁₀	257.5	219.5	- 38.0	15
CO	81.2	104.3	+ 23.1	100
NO _x	125.7	162.9	+ 37.2	40
VOC	57.5	76.9	+ 19.4	40
SO _x	5.7	7.4	+ 1.7	40

HAZARDOUS AIR POLLUTANTS

19. The facility has the potential to be a major HAP source.

TOXIC AND FLAMMABLE SUBSTANCE USAGE

20. The following toxic and flammable substances are used at the facility in the approximate quantities listed below:

CAS Number	Chemical Name	Insignificant	1,001-10,000 lbs/yr	10,001-20,000 lbs/yr	20,001-50,000 lbs/yr	>50,000 lbs/yr
50-00-0	Formaldehyde			X		
67-56-1	Methanol				X	
108-95-2	Phenol		X			

STRATOSPHERIC OZONE-DEPLETING SUBSTANCES

21. The facility does not manufacture, sell, distribute, or use in the manufacturing of a product any stratospheric ozone-depleting substances and the 1990 Clean Air Act, as amended, Sections 601-618, do not apply to the facility except that air conditioning units and fire extinguishers containing Class I or Class II substances must be serviced by certified repairmen to ensure that the substances are recycled or destroyed appropriately.

MONITORING REQUIREMENTS

22. Section 70.6(a)(3) of the federal Title V permit rules, requires all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where 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.

However, the requirements to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., no monitoring) will meet section 70.6(a)(3). For this reason, this permit does not include any monitoring for insignificant emissions units and activities.

23. The Title V permit does include monitoring for all requirements that apply to significant emissions units in addition to the testing requirements in the permit. Periodic visible emissions observations are required for all particulate emissions sources. It is assumed that as long as these processes and controls are properly operated, the particulate emissions levels will be below the emissions limits specified in the permit.

TEST METHODS AND PROCEDURES

24. This section is provided so that the permittee and LRAPA will know what test methods should be used to measure pollutant emissions in the event that testing is conducted for any reason. This section does not by itself require the permittee to conduct any more testing than was previously included in the permit. Although the permit may not require testing because other routine monitoring is used to determine compliance, LRAPA and EPA always have the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct testing to confirm the compliance status. In either case, the methods to be used for testing in the event that testing is conducted are included in the permit. This is true for SIP as well as NSPS emission limits and standards.

RECORDKEEPING REQUIREMENTS

25. The permit includes requirements for maintaining records of all testing, monitoring, and production information necessary for assuring compliance with the standards and calculating short- and long-term plant site emissions.

REPORTING REQUIREMENTS

26. The permit includes a requirement for submitting semi-annual and annual monitoring reports that include semi-annual compliance certifications. Excess emissions are required to be reported to LRAPA immediately as well as in a logbook attached to the annual report. Emissions fees reports are required annually.

GENERAL BACKGROUND INFORMATION

27. The proposed permit is a replacement of an existing Air Contaminant Discharge Permit (ACDP 207510) which was issued on 10/01/89 with a modification issued on 04/13/92. The ACDP expired on 09/30/99.
28. Permits issued or required by the Department of Environmental Quality for this source include an NPDES permit for stormwater discharges.
29. This source is located in an area that is non-attainment for PM₁₀.
30. The source is located within 100 kilometers of two Class I air quality protection areas: Diamond Peak Wilderness and Three Sisters Wilderness area.

COMPLIANCE HISTORY

31. The facility operated under the Stipulated Final Order (SFO) Number 95-08 until all conditions of the SFO were satisfied. The facility has been inspected on 02/23/92, 02/28/94, 02/28/95 and 11/14/96 and was found to be in compliance. During that time, no complaints were received and no enforcement actions have been taken against this source.

ADDITIONAL REQUIREMENTS

32. This source is not currently subject to federal regulations for New Source Performance Standards (NSPS).
33. This source is not currently subject to federal regulations for New Source Review/Prevention of Significant Deterioration (PSD).

PUBLIC NOTICE

34. The draft permit was on public notice from December 7, 2001, to January 8, 2002. No written comments were received during the comment period. There was no request for a public hearing.

The proposed permit was sent to EPA on January 25, 2002, for a 45-day review period. Because no substantive or adverse comments were received on the draft permit, LRAPA requested five-day expedited review. On February 14, 2002, LRAPA received a letter from EPA declaring the permit now eligible for issuance.

The public's opportunity to contest expedited and full review-period permits remains the same. This permit may be contested for a period of 105 days (45-day EPA review period plus 60 days) from the date the proposed permit was sent to EPA.

DJ/bp
3/24/02