



State of Oregon
Department of
Environmental
Quality

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY OREGON TITLE V OPERATING PERMIT

Western Region
4026 Fairview Industrial Drive SE
Salem, OR 97301-1039
Telephone (503)378-8240

~~Issued in accordance with provisions of ORS 468A.040
and based on land use compatibility findings included in the permit record.~~

ISSUED TO:

Roseburg Forest Products Co.
Riddle Plywood Plant
PO Box 1088
Roseburg, OR 97470

INFORMATION RELIED UPON:

Application Number: 28474
Received: 12/21/2015

PLANT SITE LOCATION:

3064 Cow Creek Road
Riddle, OR 97469

**LAND USE COMPATIBILITY
STATEMENT:**

Issued by: Douglas County
Dated: 09/09/92

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Claudia J. Davis

Claudia Davis, Western Region Air Quality Manager

JUL 31 2019

Date

Nature of Business

Plywood & Veneer Manufacturing

Fuel Burning Equipment, 10 million or more Btu/hour heat input, wood fired

SIC

2436

4961

NAICS

321212

221330

RESPONSIBLE OFFICIAL

Name:

Title: Vice President

And/or

Title: Director – Solid Wood Manufacturing

Title: Riddle Plywood Manager

FACILITY CONTACT PERSON

Name: Ellen Porter

Title: Director Environmental Affairs

Phone: (541) 679-2130

Pages 2 - 22 redacted -- outside the scope of the SIP

- emergency Fire Pump Engine. [40 CFR 60.4214(b)]
62. If the Fire Pump Engine is equipped with a diesel particulate filter, the permittee must keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached. [40 CFR 60.4214(e)]
63. The permittee is required to operate and maintain the Fire Pump Engine that achieves the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]
64. Unless otherwise specified in this permit, the Department is not requiring any testing, monitoring, recordkeeping, or reporting for the applicable emissions limits and standards that apply to IEUs. However, if testing were performed for compliance purposes, the permittee would be required to use the test methods identified in and perform the testing in accordance with the DEQ's Source Sampling Manual.

PLANT SITE EMISSION LIMITS

65. The permittee must not cause or allow plant site emissions to exceed the following limits for any 12 consecutive calendar month period: [OAR 340-222-0035 through OAR 340-222-0041]

Pollutant	Plant Site Emission Limits (tons)	Unassigned Emissions (tons)
PM	141	24
PM ₁₀	108	14
PM _{2.5}	64	10
CO	330	101
NO _x	144	34
SO ₂	39	0
VOC	272	0
GHG	228,800	0

- 65.a. The permittee may only use Unassigned Emissions after any necessary construction (OAR 340-218-0190) and permit revision applications (OAR 340-218-0120 through 340-218-0180) have been approved by DEQ. [OAR 340-222-0055]

PSEL Monitoring

66. The permittee must determine compliance with the Plant Site Emission Limits established in Condition 65 of this permit by conducting monitoring and calculations in accordance with the following procedures, test methods and frequencies, except for GHGs. [OAR 340-218-0050(3)]

- 66.a. The permittee must maintain records of the following process parameters:

Emissions Unit(s)/ Process	Process Parameter	Units	Measurement Technique	Frequency
M-1	Plywood production	MSF-3/8" finished basis	Production Records	Daily & Monthly totals
Boiler 1	Steam production	M lbs steam	Steam Flow Meter	Monthly total
	Natural gas usage	MM ft ³	Usage records	Monthly total
NG Boiler	Natural gas usage	MM ft ³	Usage records	Monthly total
Dryers 1-6	Total veneer dried	MSF-3/8" finished basis	Production records	Monthly total
Dryers 1-6	Hardboard dried	MSF-1/8" finished	Production records	Monthly total

Emissions Unit(s)/ Process	Process Parameter	Units	Measurement Technique	Frequency
		basis		
Dryers 1-6	Natural gas usage in RCO	MM ft ³	Usage records	Monthly total
Presses 1-6	Plywood production	MSF-3/8" finished basis	Production records	Daily & Monthly totals
Presses 1-6	Hardboard pressed	MSF-1/8" finished basis	Production records	Monthly total
Facility VOC	VOC chemical usage	Gallons, VOC content	Usage or purchase records, SDS or CPDS	Monthly total
Priming Line	VOC/HAP chemical usage	Gallons, VOC/HAP content	Usage or purchase records, SDS or CPDS	Monthly total
Steam Tunnels	Green veneer production	MSF-3/8" finished basis	Production records	Monthly total

- 66.b. The permittee must calculate emissions for each 12 consecutive calendar month period by the end of the following month using the following equation for all pollutants except GHGs:

$$E = (\Sigma(P_{eu} \times EF_{eu})/2000) + MB + AI$$

where:

E = pollutant emissions (tons/year)

P_{eu} = process parameters identified in Condition 66.a

EF_{eu} = emission factor identified for each emissions unit and pollutant in Condition 66.f

MB = VOC mass balance emissions for Facility VOC and Priming Line per Condition 66.c

AI = aggregate insignificant activities = 1 ton (for VOC and PM/PM₁₀ only)

- 66.c. The permittee must calculate VOC mass balance emissions for Emission Units Facility VOC and Priming Line as follows:

$$MB = [\Sigma(Cx \cdot Dx \cdot Kx) - W] \cdot Z$$

Where

MB = VOC emissions (lbs/month or tons/yr)

C = Material usage for the period in gallons

D = Material density in pounds per gallon

K = VOC Concentration expressed as a decimal fraction

X = subscript X represents a specific material

W = weight of VOC shipped offsite as hazardous or non-hazardous waste or in wastewater

Z = conversion constant (1 ton/2000 lbs.)

As an alternative to D and K above, the permittee may use the VOC concentration given in pounds per gallon in the calculation.

- 66.d. Compliance with PSELs must be determined using the calculations contained in Condition 66.b with the monitored parameters recorded during the reporting period and the emission factors contained in Condition 66.f, unless the permittee elects to pay emission fees based on actual

emissions using a verified emission factor determined in accordance with OAR 340-220-0170. If the permittee is paying on actual emissions based on a verified emission factor, the verified emission factor must be used for determining compliance with the PSEL in accordance with Condition 70.

- 66.e. As an alternative to performing the emission calculations in Condition 66.b, the permittee may keep records demonstrating that none of the following annual operational parameters are exceeded. The comparison for each 12 consecutive month period must be performed by the last day of the following month. An exceedance of an operational parameter is not necessarily a violation of the PSEL. Should an operational exceedance occur, the permittee must calculate the actual emissions for the period in accordance with Condition 66.b.

66.e.i. Total Steam Production from Boiler #1 must less than 963.6 MMlbs and natural gas usage less than 325 MM ft³.

66.e.ii. Total Natural Gas Usage in NG Boiler must less than 837 MM ft³.

66.e.iii. Total Plywood Production must be less than 515,000 Msf—3/8" finished.

66.e.iv. Dryers 1-6 Total Dried Production must be less than 590,169 Msf—3/8" finished.

66.e.v. Total Hardboard Production must be less than 158,000 Msf—1/8" finished.

66.e.vi. Total Natural Gas Usage in Veneer Dryers 1-6 RCO must be less than 475 MM ft³.

- 66.f. The emission factors for calculating pollutant emissions are as follows:

Emissions Unit	Pollutant	Fuel Type or device	Emission Factor	Units
Boiler #1	PM	hogged fuel/sander dust	0.018*	lb/Mlb steam
	PM ₁₀	hogged fuel/sander dust	0.018*	lb/Mlb steam
	PM _{2.5}	hogged fuel/sander dust	0.016*	lb/Mlb steam
	CO	hogged fuel/sander dust	0.548*	lb/Mlb steam
	NO _x	hogged fuel/sander dust	0.249*	lb/Mlb steam
	SO ₂	hogged fuel/sander dust	0.037	lb/Mlb steam
	VOC	hogged fuel/sander dust	0.006	lb/Mlb steam
	PM	Natural gas	2.5	lb/MM ft ³
	PM ₁₀	Natural gas	2.5	lb/MM ft ³
	PM _{2.5}	Natural gas	2.5	lb/MM ft ³
	CO	Natural gas	84	lb/MM ft ³
	NO _x	Natural gas	50	lb/MM ft ³
	SO ₂	Natural gas	1.7	lb/MM ft ³
	VOC	Natural gas	5.5	lb/MM ft ³
NG Boiler	PM	Natural gas	2.5	lb/MM ft ³
	PM ₁₀	Natural gas	2.5	lb/MM ft ³
	PM _{2.5}	Natural gas	2.5	lb/MM ft ³
	CO	Natural gas	73	lb/MM ft ³
	NO _x	Natural gas	48	lb/MM ft ³
	SO ₂	Natural gas	1.7	lb/MM ft ³
	VOC	Natural gas	5.5	lb/MM ft ³
Dryers 1 thru 6 Heated Zones (Total Emissions with RCO)	PM	Veneer	0.056	lb/MSF
	PM ₁₀	Veneer	0.056	lb/MSF
	PM _{2.5}	Veneer	0.056	lb/MSF
	CO	Veneer	0.119	lb/MSF
	NO _x	Veneer	0.014	lb/MSF
	SO ₂	Natural gas	1.7	lb/MM ft ³
	VOC	Veneer	0.024*	lb/MSF
	VOC	Hardboard	0.00287	lb/MSF 1/8
Dryers 1-6 Cooling Zones – Plywood only	VOC	Veneer	0.016	lb/MSF
Presses 1-6 Plywood	PM	vents	0.203	lb/MSF
	PM ₁₀	vents	0.173	lb/MSF

Emissions Unit	Pollutant	Fuel Type or device	Emission Factor	Units
Presses 1-6 Hardboard	PM _{2.5}	vents	0.086	lb/MSF
	VOC ^(b)	vents	0.25	lb/MSF
	PM	vents	0.26	lb/MSF 1/8
	PM ₁₀	vents	0.206	lb/MSF 1/8
	PM _{2.5}	vents	0.103	lb/MSF 1/8
	VOC ^(b)	vents	0.76	lb/MSF 1/8
M1	PM	Cyclone	0.50	lb/BDT
	PM ₁₀	Cyclone	0.425	lb/BDT
	PM _{2.5}	Cyclone	0.213	lb/BDT
	PM	Baghouse	0.040	lb/BDT
	PM ₁₀	Baghouse	0.040	lb/BDT
	PM _{2.5}	Baghouse	0.040	lb/BDT
Saws - Plywood	VOC	Baghouse/cyclone	0.008	lb/MSF 3/8
Saws – Hardboard	VOC	Baghouse/cyclone	0.003	lb/MSF 1/8
Sanders – Plywood	VOC	Baghouse/cyclone	0.011	lb/MSF 3/8
Piles	PM	none	1217**	lb/month
	PM ₁₀	none	608**	lb/month
	PM _{2.5}	none	92**	lb/month
	VOC ^(a)	none	4798**	lb/month
Steam Tunnels	VOC ^(c)	none	0.0744	lb/MSF green veneer
Facility VOC	VOC	none	material balance	lb/month & ton/yr
Priming Line	VOC	none	material balance	lb/month & ton/yr
Paved Roads	PM	none	2699**	lb/month
	PM ₁₀	none	540**	lb/month
	PM _{2.5}	none	133**	lb/month
Unpaved Roads	PM	none	454**	lb/month
	PM ₁₀	none	129**	lb/month
	PM _{2.5}	none	13**	lb/month

* The emission factors highlighted in bold and/or asterisk are ones that the permittee shall verify sometime during the permit term.

** Emission rate

Notes

(a) VOC = VOC as propane

(b) VOC = VOC as propane + methanol + formaldehyde

(c) VOC = VOC as total speciated VOCs

66.g. The emission factors listed in Condition 66.f are not enforceable limits unless otherwise specified in this permit.

EMISSION FEES

67. ~~Emission fees will be based on the Plant Site Emissions Limits, unless permittee elects to report actual emissions for one or more permitted processes/pollutants using the procedures in OAR 340 Division 220. [OAR 340-220-0090]~~

GENERAL TESTING REQUIREMENTS

68. Unless otherwise specified in this permit, the permittee must conduct all testing in accordance with DEQ's Source Sampling Manual. [OAR 340-212-0120]

68.a. Unless otherwise specified by a state or federal regulation, the permittee must submit a source test

plan to DEQ at least 30 days prior to the date of the test. The test plan must be prepared in accordance with the Source Sampling Manual and address any planned variations or alternatives to prescribed test methods. The permittee should be aware that if significant variations are requested, it may require more than 30 days for DEQ to grant approval and may require EPA approval in addition to approval by DEQ.

- 68.b. Only regular operating staff may adjust the processes or emission control device parameters during a compliance source test and within two (2) hours prior to the tests. Any operating adjustments made during a compliance source test, which are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
- 68.c. Unless otherwise specified by permit condition or DEQ approved source test plan, all compliance source tests must be performed as follows:
 - 68.c.i. At least 90% of the design capacity for new or modified equipment;
 - 68.c.ii. At least 90% of the maximum operating rate for existing equipment; or
 - 68.c.iii. At 90 to 110% of the normal maximum operating rate for existing equipment. For purposes of this permit, the normal maximum operating rate is defined as the 90th percentile of the average hourly operating rates during a 12 month period immediately preceding the source test. Data supporting the normal maximum operating rate must be included with the source test report.
- 68.d. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. If for reasons beyond the control of the permittee a test run is invalid, DEQ may accept two (2) test runs for demonstrating compliance with the emission limit or standard.
- 68.e. Source test reports prepared in accordance with the DEQ's Source Sampling Manual must be submitted to DEQ within 60 days of completing any required source test, unless a different time period is approved in the source test plan submitted prior to the source test.

GENERAL MONITORING AND RECORDKEEPING REQUIREMENTS

General Monitoring Requirements

- 69. The permittee must not knowingly render inaccurate any required monitoring device or method. [OAR 340-218-0050(3)(a)(E)]
- 70. The permittee must use the same methods to determine compliance as those use to determine actual emissions for fee purposes and can be no less rigorous than the requirements of OAR 340-218-0080. [OAR 340-218-0050(3)(a)(F)]
- 71. The permittee must comply with the monitoring requirements on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(a)(G)]

General Recordkeeping Requirements

- 72. The permittee must maintain the following general records of testing and monitoring required by this permit: [OAR 340-218-0050(3)(b)(A)]
 - 72.a. The date, place as defined in the permit, and time of sampling or measurements;
 - 72.b. The date(s) analyses were performed;
 - 72.c. The company or entity that performed the analyses;
 - 72.d. The analytical techniques or methods used;

- 72.e. The results of such analyses;
 - 72.f. The operating conditions as existing at the time of sampling or measurement; and
 - 72.g. The records of quality assurance for continuous monitoring systems (including but not limited to quality control activities, audits, calibration drift checks).
73. Unless otherwise specified by permit condition, the permittee must make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) will not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee must document the reason for the missing record. In addition, any missing record that can be recovered from other available information will not be considered a missing record. [OAR 340-214-0110, 340-212-0160, and 340-218-0050(3)(b)]
74. The permittee must comply with the recordkeeping requirements on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(b)(C)]
75. Unless otherwise specified, the permittee must retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings (or other original data) for continuous monitoring instrumentation, and copies of all reports required by the permit. All existing records required by the previous Air Contaminant Discharge Permit or Oregon Title V Operating Permit must also be retained for five (5) years from the date of the monitoring sample, measurement, report, or application. [OAR 340-218-0050(b)(B)]

REPORTING REQUIREMENTS

General Reporting Requirements

76. Excess Emissions Reporting: The permittee must report all excess emissions as follows: [OAR 340-214-0300 through 340-214-0360].
- 76.a. Immediately (within one hour of the event) notify DEQ of an excess emission event by phone, email, or facsimile. In no event shall the initial notification be later than one hour after the start of the first working day (i.e. 8 a.m. of the following day) following the excess emission event; and
 - 76.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [OAR 340-214-0340(1)]
 - 76.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
 - 76.b.ii. The date and time the permittee notified DEQ of the event;
 - 76.b.iii. The equipment involved;
 - 76.b.iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;
 - 76.b.v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
 - 76.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);
 - 76.b.vii. The final resolution of the cause of the excess emissions; and
 - 76.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to OAR 340-214-0360.
 - 76.c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify

DEQ by calling the Oregon Emergency Response System (OERs). The current number is 1-800-452-0311.

- 76.d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0310 and 340-214-0320. New or modified procedures must be received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.

76.d.i. If the event is covered by the startup, shutdown, and malfunction (SSM) plan required by Appendix A to this permit, then the requirements of Condition 76 do not apply in relation to the NESHAP standards.

- 76.e. The permittee must maintain a log of all excess emissions in accordance with OAR 340-214-0340(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and affected emissions unit for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]

77. Permit Deviation Reporting. The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within fifteen (15) days of the deviation. Deviations that cause excess emissions, as specified in OAR 340-214-0300 through 340-214-0360 must be reported in accordance with Condition 76. [OAR 340-218-0050(3)(c)(B)]

78. All required reports must be certified by a responsible official consistent with OAR 340-218-0040(5). [OAR 340-218-0050(3)(c)(D)]

79. Reporting requirements must commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

Semi-annual and Annual Reports

80. The permittee must submit three (3) copies of reports of any required monitoring at least every 6 months, completed on forms approved by DEQ. Six month periods are January 1 to June 30, and July 1 to December 31. One copy of the report must be submitted to the EPA and two copies to the DEQ regional office. All instances of deviations from permit requirements must be clearly identified in such reports: [OAR 340-218-0050(3)(c)(A) and 340-218-0080(6)(d)] and [40 CFR 63.2281(g)]

- 80.a. The first semi-annual report is due on **August 30** and must include the following:

- 80.a.i. The first semi-annual compliance certification (Form R1002 and if applicable R1003). [OAR 340-218-0080].
- 80.a.ii. A summary of excess emission events in accordance with Condition 76.e.
- 80.a.iii. PCWP NESHAP Reports as required by Appendix A to this permit.
- 80.a.iv. Boiler NESHAP Reports as required by Appendix B to this permit.
- 80.a.v. Surface Coating of Wood Products NESHAP Reports as required by Condition 49.b, including compliance option chosen.

- 80.b. The annual report is due on **March 15** and must consist of the following:

- 80.b.i. The emission fee report; [OAR 340-220-0100]
- 80.b.ii. The annual emission inventory report for the prior calendar year; [40 CFR part 51]

- 80.b.iii. A summary of excess emission upset log; [OAR 340-214-0340]
- 80.b.iv. The second semi-annual compliance certification; [OAR 340-218-0080]
- 80.b.v. PCWP NESHAP Reports as required by Appendix A to this permit.
- 80.b.vi. Boiler NESHAP Reports as required by Appendix B to this permit.
- 80.b.vii. Surface Coating of Wood Products NESHAP Reports as required by Condition 49.b, including compliance option chosen.

81. The semi-annual compliance certification must include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):
[OAR 340-218-0080(6)(c)]

81.a. The identification of each term or condition of the permit that is the basis of the certification;

81.b. The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means must include, at a minimum, the methods and means required under OAR 340-218-0050(3). *Note: Certification of compliance with the monitoring conditions in the permit is sufficient to meet this requirement, except when the permittee must certify compliance with new applicable conditions that are not yet in the permit but are incorporated by reference. When certifying compliance with new applicable conditions that are not yet in the permit, the permittee must provide the information required by this condition.* If necessary, the permittee also must identify any other material information that must be included in the certification to comply with section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;

81.c. The status of compliance with terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Condition 81.b. The certification must identify each deviation and take it into account in the compliance certification. The certification must also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under OAR 340-200-0020, occurred; and

81.d. Such other facts as DEQ may require to determine the compliance status of the source.

Greenhouse Gas Reporting

82. ~~Greenhouse Gas Registration and Reporting: If the calendar year emission rate of greenhouse gases (CO₂e) is greater than or equal to 2,756 tons (2,500 metric tons), the permittee must register and report its greenhouse gas emissions with DEQ in accordance with OAR 340-215. The greenhouse gas report must be certified by the responsible official consistent with OAR 340-218-0040(5). [OAR 340-215-0030(2)]~~

83. ~~Notwithstanding any other provision contained in any applicable requirement, the permittee may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]~~

84. ~~Addresses of regulatory agencies are the following, unless otherwise instructed:~~

~~Submit all Notices and applications that do not include payment to the Western Region's Permit Coordinator.~~

~~Submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:~~

~~Submit all reports for EPA requirements to:~~

~~Submit all reports (annual reports, source test plans and reports, etc.) to DEQ's Western Region. If you know the name of the Air Quality~~

~~DEQ—Air Quality Division
700 NE Multnomah St. Suite 600
Portland, OR 97232
(503) 229-5359~~

~~Air Operating Permits
US Environmental Protection Agency
Mail Stop OAQ-108
1200 Sixth Avenue
Seattle, WA 98101~~

Pages 31 - 97 redacted -- outside the scope of the SIP