

DEQ Requests Comments on Columbia Forest Products' Proposed Title V Operating Permit

DEQ invites the public to submit written comments on the conditions of Columbia Forest Products, Inc.'s proposed air quality permit, known officially as an Oregon Title V Operating Permit.

Summary

The proposed permit is a renewal for an existing facility. The current permit was issued on Nov. 22, 2011 and scheduled to expire on Nov. 1, 2016. A complete and timely renewal application was submitted by the permittee, so the existing permit will remain in effect until this renewal is issued.

How do I participate?

To submit your comments for the public record, send them by mail, fax or email:

Nancy Swofford, Permit Coordinator
DEQ Eastern Region – Bend Office
475 NE Bellevue Dr., Suite 110
Bend, OR 97701

Fax: 541-388-8283

Email: [Nancy.Swofford](mailto:Nancy.Swofford@deq.state.or.us)

Written comments are due by 5 p.m.

Wednesday, Sept. 20, 2017

About the facility

This is a renewal of a Title V Permit for Columbia Forest Products, Inc. located at 4949 Highway 97 S in Klamath Falls, Oregon.

The main product of the plant is thick hardwood faced panels. Hardwood veneer is brought in from other locations, in a pre-dried condition. Raw logs are brought in by truck and stored until needed, and then manufactured into plywood panels which are processed in the Columbia Forest Products facility. Some panels are brought in from elsewhere. The hardwood veneer is glued to the panels creating the final product.

What air pollutants would the permit regulate?

This permit regulates emissions of the pollutants listed in the table at the end of this document.

How does DEQ determine permit requirements?

DEQ evaluates types and amounts of pollutants at the facility's location, and determines permit requirements according to state and federal regulations.

How does DEQ monitor compliance with the permit requirements?

This permit would require the facility to monitor pollutants using federally-approved monitoring practices and standards.

Formulas to calculate emissions are contained in the permit. The permittee is required to calculate facility-wide emissions and submit an emissions report semi-annually. Onsite inspections will be conducted to assure compliance with emission limitations.

What happens after the public comment period ends?

DEQ will consider and provide responses to all comments received at the close of the comment period. The Department will hold a public hearing if requested by 10 or more individuals or one person representing a group of 10 or more individuals. In addition to soliciting public comments, DEQ is also communicating with groups and individuals to determine whether the proposed facility would cause disproportionate impacts to any particular group of people. DEQ is committed to the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income. DEQ may modify provisions in the proposed permit, but the permit writers can only modify conditions of the permit in accordance with the rules and statutes under the authority of DEQ. Participation in the rulemaking or the legislative process is the only way to change the rules or statutes. Ultimately, if a facility meets all legal requirements, DEQ will issue the facility's air quality permit.



State of Oregon
Department of
Environmental
Quality

**Eastern Region
Air Quality Program**
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Permit Writer

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Search for "Columbia Forest, Air Permit, Air Quality, Klamath"

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Please include your full name and mailing address so that we can remove you from our print mailing list.

Date Issued: 8/16/17
By: Nancy Swofford
Permit Number: 18-0014

Where can I get more information?

Find out more and view the draft documents online at DEQ's "[Active Public Notices](#)" page or contact Nancy Swofford, Permit Coordinator:

Phone: 541-633-2021 or 866-863-6668

Fax: 541-388-8283

Email: [Nancy Swofford](mailto:Nancy.Swofford@deq.state.or.us)

View the draft permit and related documents in person at the Klamath County Library Service District at 126 S Third Street or at the DEQ office in Klamath Falls. For a review appointment, call Mike Hiatt at 541-273-7002.

Accessibility information

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

Emissions Limits

Criteria Pollutants and Greenhouse Gases: Table 1 below presents maximum allowable emissions of criteria pollutants and greenhouse gases for the facility. The current emission limit reflects maximum emissions the facility can emit under the existing permit. The proposed emission limit reflects maximum emissions the facility would be able to emit under the proposed permit. Typically, a facility's actual emissions are less than maximum limits established in a permit; however, actual emissions can increase up to the permitted limit.

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Particulate matter	98	97
Small particulate matter	87	87
Fine particulate matter	66	66
Carbon monoxide	104	104
Nitrogen oxides	65	65
Sulfur dioxide	39	39
Volatile organic compounds	143	143
Greenhouse Gases	74,000	74,000

For more information about criteria pollutants, go to EPA's ["Criteria Air Pollutants"](#) page.

Hazardous Air Pollutants: Columbia Forest Products, Inc. is not a major source of hazardous air pollutants, however EPA has determined that businesses similar to this facility, as a group, emit enough hazardous air pollutants to warrant regulation. Therefore, this source is subject to the following National Emission Standard for Hazardous Air Pollutants: 40 CFR, Part 63, Subpart QQQQ (Surface Coating of Wood Building Products) and 40 CFR, Part 63, Subpart JJJJJ (Industrial, Commercial and Institutional Boilers Area Sources). Table 2 summarizes the hazardous air pollutants that trigger the NESHAP. More detailed information can be found in the review report.

Table 2

Hazardous Air Pollutants	Potential Emissions (tons/yr)
Methanol	7.51
Formaldehyde	5.74
Other Various HAPs	6.17
Total HAPs	19.42

For more information about hazardous air pollutants, go to: [Health Effects Notebook for Hazardous Air Pollutants](#)



Draft
8/14/17

Permit Number: 18-0014-TV-01
Expiration Date: <Five Years from Date of Issuance>
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OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT

Eastern Region
475 NE Bellevue Dr., Suite 110
Bend, OR 97701
Telephone: 541-388-6146

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

ISSUED TO:

Columbia Forest Products, Inc.
4949 Highway 97 S
Klamath Falls, OR 97603

INFORMATION RELIED UPON:

Application Number: 28434
Received: 10/29/2015

PLANT SITE LOCATION:

4949 Highway 97 S
Klamath Falls, OR 97603

LAND USE COMPATIBILITY STATEMENT:

Issued by: Klamath County
Dated: 4/16/1992

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Mark W. Bailey, Eastern Region Air Quality Manager

Date

<u>Nature of Business</u>	<u>SIC</u>	<u>NAICS</u>
Plywood manufacturing, 25,000 or more ft ² /hr, 3/8" basis finished product	2435	321211
Fuel burning equipment	4961	221330

RESPONSIBLE OFFICIAL

Title: Plant Manager

FACILITY CONTACT PERSON

Name: Scott McEnroe
Title: Environmental Manager
Phone: 541-887-9597

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LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit	NO _x	Nitrogen Oxides
Act	Federal Clean Air Act	O ₂	Oxygen
ASTM	American Society of Testing and Materials	OAR	Oregon Administrative Rules
Btu	British thermal unit	ODEQ	Oregon Department of Environmental Quality
CFR	Code of Federal Regulations	ORS	Oregon Revised Statutes
CO	Carbon Monoxide	O&M	Operation and Maintenance
CO ₂ e	Carbon Dioxide Equivalent	Pb	Lead
CPMS	Continuous Parameter Monitoring System	PCD	Pollution Control Device
DEQ	Department of Environmental Quality	PM	Particulate Matter
dscf	dry standard cubic feet	PM ₁₀	Particulate Matter less than 10 microns in size
EF	Emission Factor	PM _{2.5}	Particulate Matter less than 2.5 microns in size
EPA	US Environmental Protection Agency	ppm	parts per million
EU	Emissions Unit	PSEL	Plant Site Emission Limit
FCAA	Federal Clean Air Act	psia	pounds per square inch, actual
FSA	Fuel Sampling and Analysis	SERP	Source Emissions Reduction Plan
GHG	Greenhouse Gas	SO ₂	Sulfur Dioxide
Gr/dscf	Grain per dry standard cubic feet (1 pound=7000 grains)	ST	Source Test
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	VE	Visible Emissions
HCFC	Halogenated Chloro-Fluoro-Carbons	VMT	Vehicle Miles Traveled
ID	Identification Number or Label	VOC	Volatile Organic Compounds
I&M	Inspection and Maintenance		
NA	Not Applicable		

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]
2. All conditions in this permit are federally enforceable, meaning that they are enforceable by DEQ, EPA and citizens under the Clean Air Act, except Conditions 5, 6, 42, G5 and G9 (OAR 340-248-0005 through 340-248-0180) are only enforceable by the state. [OAR 340-218-0060]

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. The emissions units regulated by this permit are the following: [OAR 340-218-0040(3)]

Table 1: Emission Unit and Pollution Control Device Identification

Emission Unit Description	EU ID	Pollution Control Device Description	PCD ID
Wood/bark fired South boiler	BLR-S	Multiclone	1-120-0850
Wood/bark fired North boiler	BLR-N	None	NA
New (post-1970) veneer dryers	V-N	None	NA
Press vents and dust collector	PV	None	NA
Material handling, including baghouses, cyclones and target boxes	MH	Baghouse on Blank and HW sanders, Baghouse for UV coating line sander	Blank BH UV BH
Miscellaneous non-combustion VOC	FW	None	NA
Natural gas fired combustion devices	NG1	None	NA
Storage piles	SP	None	NA
Aggregate insignificant emissions activities, including bucking saws, debarker, steam vat, UV coating line, fuel preparation, open blow pipe, plytrim truck bin, mechanical conveyors, rail loading, plytrim bin cyclone, space heater #1, sanderdust cyclone, and portable wood grinder.	AI	None	NA

EMISSION LIMITS AND STANDARDS

The following tables and conditions contain the applicable requirements along with testing, monitoring and recordkeeping requirements for the emissions units to which those requirements apply.

Table 2: Summary of Facility Wide Emission Limits

Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
340-208-0210(2)	4	Fugitive Emissions	Minimize	Fugitive Dust Control Plan, observations, and recordkeeping	40 & 41
340-208-0300	5	Air Contaminants	Not cause a nuisance	Complaint investigation	42
340-208-0450	6	PM >250 μ	No observable deposition off site	Complaint investigation	42
40 CFR Part 68	7	Risk Management	Risk management plan	NA	NA

Nuisance Conditions

4. The permittee must not allow or permit any materials to be handled, transported or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated without taking reasonable precautions to prevent particulate matter from becoming airborne in accordance with OAR 340-208-0210(1).
 - 4.a. Upon detection, the permittee must remove all spillage caused by conveyor, cyclone or baghouse plug ups. If the spillage occurs after dark or hazardous conditions exist, the permittee must remove the material the next day.
 - 4.b. At least once per week, excluding periods of rain and snow, the permittee must inspect all piles and accessible paved areas and clean as necessary.
 - 4.c. At least once per week, the permittee must inspect and maintain all storage piles to insure that material is confined to the designated pile area.
 - 4.d. At least once per week, excluding periods of rain and snow, the permittee must inspect all roofs and clean as necessary.
 - 4.e. At least once per quarter, the permittee must inspect and maintain all enclosures, doors, silo hatches and diverter systems such that they are in proper operating condition.
 - 4.f. At least once per quarter, the permittee must inspect and repair, if necessary, all exterior material transfer points, conveyor belts, drag chains, drop points, screws, loaders and disc scalps.
 - 4.g. Upon request by DEQ, the permittee must update the fugitive emission control plan for approval by DEQ if the above precautions are not adequate, and implement the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.
5. Applicable Requirement: The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by DEQ personnel. [OAR 340-208-0300] This condition is enforceable only by the State.
6. Applicable Requirement: The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. [OAR 340-208-0450] This condition is enforceable only by the State.

Accidental Release Prevention

7. Applicable Requirement: Should this stationary source become subject to the accidental release prevention regulations in 40 CFR Part 68, then the permittee must submit a risk management plan (RMP) by the date specified in 40 CFR 68.10 and comply with the plan and all other applicable Part 68 requirements. [40 CFR Part 68]

Emissions Unit Specific Emission Limits and Standards**Table 3: Emission Unit Specific Emission Limits and Standards**

EU ID	Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
BLR-S and BLR-N	340-208-0110(2)(a) and (5)	8	Visible Emissions	40% opacity, 6-minute block average through 12/31/2019 ^(a)	VE periodic monitoring	43
	340-228-0210(2)(a)(B) and (C)	9	PM	0.24 gr/dscf @ 12% CO ₂ through 12/31/2019 ^(b)	Periodic VE observations and O&M	43, 44 and 45
	40 CFR Part 63, Subpart JJJJJ	10 - 13	HAPs	Biennial Tune-up	Biennial Tune-up Records	12
V-N	340-234-0510(1)(b)	14	VE and PM	10% daily average operating opacity	VE periodic monitoring	46
	340-234-0510(1)(e)	15	VE and PM	Highest and Best	Periodic VE observations and O&M	47
	340-234-0510(1)(f)	16	PM	Concealing Emissions	Periodic VE observations and O&M	47
	340-226-0210(2)(b)(B)	17	PM	0.14 gr/dscf	ST periodic monitoring	46 and 47
PV	340-208-0110(2)(a) and (4)	18	Visible Emissions	20% opacity, 6-minute block average	VE periodic monitoring	48
	340-226-0210(2)(b)(A)	19	PM	0.10 gr/dscf	ST periodic monitoring	48
MH	340-208-0110(2)(a) and (4)	18	Visible Emissions	20% opacity, 6-minute block average	VE periodic monitoring	49
	340-226-0210(2)(b)(B)	19	PM	0.14 gr/dscf	ST periodic monitoring	49 and 50
PV and MH	340-234-0510(2)(a)	19	PM	56.25 lb/hr	Periodic VE observations, equipment I&M and material throughput	48, 49, 50 and 51

EU ID	Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
NG1	340-208-0110(5)	22	Visible Emissions	20% opacity, 6-minute block average	VE periodic monitoring	52
	340-226-0210(2)(b)(B)	23	PM	0.14 gr/dscf avg. of 3 test runs	Periodic VE observations and O&M	52

(a) Boiler limits (BLR-S & BLR-N) becomes 20% opacity on and after January 1, 2020.

(b) Boiler limit (BLR-S) becomes 0.15 gr/dscf on and after January 1, 2020. Boiler limit (BLR-N) becomes 0.20 gr/dscf on and after January 1, 2020, if operated 870 hours or less in a calendar year.

Boilers (BLR-S and BLR-N):

8. The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from the boilers (BLR-S, BLR-N) in excess of the following limits as measured in accordance with Condition 43. [OAR 340-208-0110(2)(a) and (5)]
 - 8.a. An average of 40 percent opacity through December 31, 2019, with the exception that visible emissions may equal or exceed an average of 40 percent opacity for up to two independent six-minute blocks in any hour, as long as the average opacity during each of these six-minute blocks is less than 55 percent. [OAR 340-208-0110(5)(a)]
 - 8.b. An average of 20 percent opacity on or after January 1, 2020, [OAR 340-208-0110(5)(b)] with one more of the following exceptions:
 - 8.b.i. Visible emissions may equal or exceed an average of 20 percent opacity for up to two independent six-minute blocks in any hour, as long as the average opacity during each of the two six-minute blocks is less than 40 percent.
 - 8.b.ii. Visible emissions may equal or exceed an average of 20 percent opacity but may not equal or exceed 40 percent opacity, as the average of all six-minute blocks during grate cleaning operations provided that grate cleaning is performed in accordance with a grate cleaning plan approved by DEQ.
9. The permittee must not cause or allow the emission of particulate matter from boilers (BLR-S, BLR-N), in excess of the following limits, as monitored in accordance with Condition 44 and measured in accordance with Condition 36. [OAR 340-228-0210(2)(a)(B) and (C)]
 - 9.a. 0.24 grains per dry standard cubic foot, corrected to 12% CO₂ prior to December 31, 2019;
 - 9.b. 0.15 grains per dry standard cubic foot, corrected to 12% CO₂ on or after January 1, 2020; and,
 - 9.c. 0.20 grains per dry standard cubic foot, corrected to 12% CO₂ on or after January 1, 2020 for BLR-N if operated 876 hours or less per calendar year;
 - 9.d. The permittee must also take the following actions on the boilers, BLR-S and BLR-N:
 - 9.d.i. If residual oxygen from the hog fuel boilers is less than or greater than the parameter operating ranges established in Condition 44, other than during startup and shut down, the permittee must take corrective action. [OAR 340-226-0130]
 - 9.d.ii. An action level excursion is not necessarily a violation of an emission standard.

Boiler Area Source MACT (40 CFR Part 63 Subpart JJJJJ):

10. The permittee may only burn *biomass* in BLR-S and BLR-N. *Biomass* means any biomass-based solid fuel that is not a solid waste as defined in 40 CFR 241.3. This includes, but is not limited to:
 - 10.a. Wood residue and wood products, including trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings and shavings;

- 10.b. Animal manure, including litter and other bedding materials;
 - 10.c. Vegetative agricultural and silvicultural materials, including logging residues (slash), nut and grain hulls and chaff, bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.
11. The permittee must conduct biennial performance tune-ups as follows: [40 CFR 63.11196(a)(1), 63.11201(b), 63.11214(b) and 63.11223]
- 11.a. Inspect the burner and clean or replace any components of the burner as necessary. The burner inspection may be delayed until the next scheduled boiler shutdown, but each burner must be inspected at least once every 36 months;
 - 11.b. Inspect the flame pattern and adjust the burner as necessary to optimize the flame pattern. Any adjustment must be consistent with the manufacturer's specifications for the burner, if available;
 - 11.c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly;
 - 11.d. Measure the exhaust concentration of carbon monoxide (ppmv) and oxygen (%), before and after the adjustments are made. Measurements may be made either on a dry or wet basis, as long as it is the same basis before and after any adjustments are made;
 - 11.e. Optimize the total emissions of carbon monoxide. This optimization must be consistent with the manufacturer's specifications, if available;
 - 11.f. If the boiler is not operating on the required date for the tune-up, the tune-up must be conducted within one week of startup;
 - 11.g. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.
12. The permittee must maintain biennial reports containing the tune-up information as required in Condition 11, specifically: [40 CFR 63.11223(b)(6) (i) through (iii) and 63.11225(c)(2) (i) and (ii)]
- 12.a. Identification of the boiler, date of tune up, the procedures followed for the tune-up, and the manufacturer's specifications to which the boiler was tuned.
 - 12.b. The CO concentrations in the exhaust in ppmv, and oxygen %, measured before and after the tune-up, as detailed in Condition 11.d;
 - 12.c. A description of any corrective actions taken as part of the tune-up;
 - 12.d. The type and amount of fuel used each month over the 12 months prior to the biennial tune-up;
 - 12.e. These records must be maintained onsite, in a form suitable for inspection and/or submittal upon request.
13. The permittee must comply with the following, as applicable:
- 13.a. The permittee must prepare a biennial compliance report and include it with the annual report specified in Condition 67.b. The report must include the following: [40 CFR 63.11225(b)]
 - 13.a.i. Company name and address;
 - 13.a.ii. Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth accuracy and completeness of the notification and a statement of whether the source has complied with all of the relevant standards and other requirements of 40 CFR Part 63, Subpart JJJJJJ.
 - 13.a.iii. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of the deviations, the time periods during which the deviations occurred, and the corrective action taken.
 - 13.b. Notification 30 days prior to commencing combustion of solid waste including the following information: [40 CFR 63.11225(f)]
 - 13.b.i. The name of the owner or operator of the affected source, the location of the source, the boilers(s) that will commence burning solid waste, and the date of the notice;
 - 13.b.ii. The currently applicable subcategory under 40 CFR Part 63, Subpart JJJJJJ;
 - 13.b.iii. The date on which the boilers became subject to the currently applicable emission limits; and

- 13.b.iv. The date upon which combusting solid waste will commence.
- 13.c. Notification 30 days prior to switching to a fuel(s) that may result in the applicability of a different subcategory or a switch out of 40 CFR Part 63, Subpart JJJJJ due to a switch to 100 percent natural gas, including the following information: [40 CFR 63.11225(g)]
 - 13.c.i. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice;
 - 13.c.ii. The currently applicable subcategory under 40 CFR Part 63, Subpart JJJJJ;
 - 13.c.iii. The date on which the boilers became subject to the currently applicable emission limits; and
 - 13.c.iv. The date upon which the fuel switch will commence.
- 13.d. 40 CFR Part 63 General Provisions according to Table 8 of Subpart JJJJJ, incorporated by reference. [40 CFR 63.11235]

Veneer Dryers (V-N):

- 14. The permittee must not cause or allow the operation of the veneer dryers (V-N), such that visible air contaminants emitted from the dryer stacks or emission points exceed:
 - 14.a. A daily average operating opacity of 10% on more than two days within any 12-month period, with the days separated from each other by at least 30 days: [OAR 340-234-0510(1)(b)(A)], or
 - 14.b. A maximum opacity of 20% at any time. [OAR 340-234-0510(1)(b)(B)].

Visible emissions must be monitored in accordance with Condition 46.

“Average operating opacity” means the opacity of emissions determined using EPA Method 9 on any three days within a 12-month period which are separated from each other by at least 30 days; a violation of the average operating opacity limitation is judged to have occurred if the opacity of emissions on each of the three days is greater than the specified average operating opacity limitation. "Maximum opacity" means the opacity as determined by EPA Method 9 (average of 24 consecutive observations).

- 15. The veneer dryers (V-N) must be maintained and operated at all times such that air contaminant generating processes and all air contaminant control equipment are at full efficiency and effectiveness so that the emission of air contaminants are kept at the lowest practicable levels. [OAR 340-234-0510(1)(e)]
- 16. The permittee must not willfully cause or permit the installation or use of any means, such as dilution, which, without resulting in a reduction in the total amount of air contaminants emitted, conceals an emission which would otherwise violate Conditions 14 and 17. [OAR 340-234-0510(1)(f)]
- 17. The permittee must not cause or allow the emission of particulate matter from veneer dryers V-N in excess of 0.14 grains per dry standard cubic foot. [OAR 340-226-0210(2)(b)(B)] Particulate matter emissions must be monitored in accordance with Conditions 46 and 47 and measured in accordance with Condition 36.

Press Vents (PV) and Material Handling (MH):

- 18. The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from emission units plywood presses (PV) and material handling (MH), for a six (6) minute block in any one hour which is equal to or greater than 20% opacity, excluding uncombined water, as monitored in accordance with Conditions 48 and 49. [OAR 340-208-0110(2)]
- 19. The permittee must not cause or allow the emission of particulate matter from plywood presses (PV) in excess of 0.10 grains per dry standard cubic foot and material handling (MH) in excess of 0.14 grains per dry standard cubic foot. [OAR 340-226-0210(1)(b)(A) & (B)] Particulate matter emissions must be monitored in accordance with Conditions 48 through 51 and measured in accordance with Condition 36.

20. The permittee must not cause or allow the combined emissions of particulate matter from veneer and plywood mill sources excluding the veneer dyers and boilers in excess of a total from all sources within the plant site of 56.25 lbs/hour. [OAR 340-234-0510(2)(b)(B)] Particulate matter emissions must be monitored in accordance with Conditions 48 through 51 and measured in accordance with Condition 36.

Storage Piles (SP):

21. The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from the emission unit storage piles (SP) in accordance with the operating requirements of Condition 4.

Natural Gas Fired Space Heaters (NG1):

22. The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from emission unit natural gas combustion (NG1) during a six (6) minute block which is equal to or greater than 20% opacity, excluding uncombined water. [340-208-0110(2)]
23. The permittee must not cause or allow the emission of particulate matter from natural gas combustion (NG1) in excess of 0.14 grains per dry standard cubic foot. [OAR 340-226-0210(2)(b)(B)]

Insignificant Activities Requirements

24. DEQ acknowledges that insignificant emissions units (IEUs) identified by rule as either categorically insignificant activities or aggregate insignificant emissions as defined in OAR 340-200-0020 exist at facilities required to obtain an Oregon Title V Operating Permit. IEUs must comply with all applicable requirements. In general, the requirements that could apply to IEUs are incorporated as follows:

- 24.a. OAR 340-208-0110 (20% opacity)
- 24.b. OAR 340-228-0210 (0.10 gr/dscf corrected to 12% CO₂ or 50% excess air for fuel burning equipment)
- 24.c. OAR 340-226-0210 (0.10 gr/dscf for non-fugitive, non-fuel burning equipment)
- 24.d. OAR 340-226-0310 (process weight limit for non-fugitive, non-fuel burning process equipment)

Unless otherwise specified in this permit or an applicable requirement, DEQ 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 DEQ's Source Sampling Manual.

Wood Building Products (surface coating) NESHAP – 40 CFR Part 63, Subpart QQQQ

25. This permit contains only the requirements from Subpart QQQQ that apply to the UV coating line, assuming that compliance can only be demonstrated using the emission rate without add-on control option. If the permittee makes changes to the process that would require the use of one of the other compliance options (e.g., compliant materials or emissions rate with add-on controls), the permittee must submit an application for a permit revision before making the change. [OAR 340-218-0160]

Emission Limits and Compliance Requirements:

26. The permittee must limit HAP emissions from the UV coating line to no more than the applicable emission limit below, determined according to Condition 27. [40 CFR §63.4690(b)]

Table 4: HAP Emission Limits for Existing Affected Sources (40 CFR Part 63, Subpart QQQQ, Table 2)

Subcategory	Limit ^{1, 2}	
	(grams HAP/liter solids)	(pound HAP/gallon solids)
Exterior siding and primed doorskins	7	0.06
Flooring	93	0.78
Interior wall paneling or tileboard	183	1.53
Other interior panels	20	0.17
Doors, windows and miscellaneous	231	1.93

¹ Determined as a rolling 12-month emission rate according to the requirements in Condition 27.

² If coatings are applied to products in more than one subcategory, the permittee must determine the applicable emission limit according to Condition 26.a.

- 26.a. If the permittee applies coatings to products that are in different subcategories, then the permittee must demonstrate initial and continuous compliance by selecting one of the approaches described below:
 - 26.a.i. Conduct separate compliance demonstrations for each applicable subcategory emission limit and reflect these separate determinations in reports and records required by Conditions 31 and 29, respectively;
 - 26.a.ii. Demonstrate compliance with the most stringent of the applicable subcategory emission limits.
- 26.b. The permittee must include all coatings, thinners and cleaning materials used in the UV coating line when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit. To make this determination, the permittee must demonstrate that, based on the coatings, thinners and cleaning materials used in the coating operation, the organic HAP emission rate for the coating operation is less than or equal to the applicable emission limit, calculated as a 12-month emission rate and determined on a monthly basis. The permittee must meet all the requirements of Conditions 27 and 28 to demonstrate compliance with the emission limit using this option. [40 CFR §63.4691(b)]
- 26.c. The permittee must be in compliance with the emission limitations at all times. [40 CFR §63.4700(a)(1)]
- 26.d. At all times, including periods of startup, shutdown and malfunction, the permittee must operate and maintain any affected source (e.g., the UV coating line), including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards. [40 CFR §63.4700(b) and 40 CFR §63.6(e)(1)(i)]
- 26.e. The permittee must comply with the General Provisions in 40 CFR §§63.1 through 63.15 that apply to the facility as listed in Table 4 of 40 CFR Part 63, Subpart QQQQ, which is incorporated by reference. [40 CFR §63.4701] For convenience, the table is also included in the Review Report attached to this permit.

Compliance Requirements for the Emission Rate Without Add-On Controls Option:

27. The permittee may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. To demonstrate compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in Condition 26.

Any coating operation(s) for which the permittee uses the emission rate without add-on controls option is (are) not required to meet the operating limits or work practice standards required in 40 CFR §§63.4692 and 63.4693, respectively. The permittee must meet all the requirements of this Condition to demonstrate compliance with the applicable emission limit in Condition 26 for the coating operation(s). It is not necessary to re-determine the mass of organic HAP in coatings, thinners or cleaning materials that have been reclaimed onsite and reused in the coating operation(s) when using the emission rate without add-on controls option. [40 CFR §63. 4751]

- 27.a. *Determine the mass fraction of organic HAP for each material.* The permittee must determine the mass fraction of organic HAP for each coating, thinner and cleaning material by using one of the following options:
- 27.a.i. *Method 311 (Appendix A of 40 CFR Part 63).* The permittee may use Method 311 for determining the mass fraction of HAP. Use the procedures specified below when performing a Method 311 test. If these values cannot be determined using Method 311, the permittee must submit an alternative technique for determining their values for approval by the Administrator.
- 27.a.i.A. Count each organic HAP that is measured to be present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR §1910.1200(d)(4), and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, it does not have to be counted. Express the mass fraction of each organic HAP as a value truncated to four places after the decimal point (e.g., 0.379178412 truncates to 0.3791).
- 27.a.i.B. Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (e.g., 0.763).
- 27.a.ii. *Method 24 (Appendix A of 40 CFR Part 60).* For coatings, the permittee may use Method 24 to determine the mass fraction of non-aqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. (Note: Method 24 is not appropriate for those coatings with a water content that would result in an effective detection limit greater than the applicable emission limit.)
- 27.a.iii. *Alternative Method.* The permittee may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. The permittee must follow the procedures in 40 CFR §63.7(f) to submit an alternative test method for approval.
- 27.a.iv. *Information from the Supplier or Manufacturer of the Material.* The permittee may rely on information other than that generated by the test methods specified in 27.a.i through 27.a.iii, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR §1910.1200(d)(4), and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, it does not have to be counted. If there is disagreement between such information and results of a test conducted according to 27.a.i through 27.a.iii, then the test method results will take precedence unless, after consultation, the permittee can demonstrate to the satisfaction of the Department that the information data were correct.
- 27.a.v. *Solvent Blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, the permittee may use the default values for the mass fraction of organic HAP in these solvent blends listed in the following tables. If the permittee uses the

tables, the permittee must use the values in Condition 27.e.iv.A for all solvent blends that match the entries, and the permittee may only use the table in Condition 27.a.v.B if the solvent blends in the materials the permittee uses do not match any of the solvent blends in Condition 27.e.iv.A and the permittee only knows whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (40 CFR Part 63, Appendix A) test indicate higher values than those listed in Conditions 27.e.iv.A and 27.a.v.B, the Method 311 results will take precedence.

27.a.v.A. Table 5 from 40 CFR Part 63, Subpart QQQQ:

Table 5: Default Organic HAP Mass Fraction for Solvents and Solvent Blends

Solvent/Solvent Blend	CAS. No.	Average Organic HAP Mass Fraction	Typical Organic HAP, Percent by Mass
Toluene	108-88-3	1.0	Toluene
Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene
Hexane	11054-3	0.5	n-hexane
n-Hexane	110-54-3	1.0	n-hexane
Ethylbenzene	100-41-4	1.0	Ethylbenzene
Aliphatic 140	-----	0	None
Aromatic 100	-----	0.02	1% xylene, 1% cumene
Aromatic 150	-----	0.09	Naphthalene
Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene
Aromatic solvent	64742-94-5	0.1	Naphthalene
Exempt mineral spirits	8032-32-4	0	None
Ligroines (VM & P)	8032-32-4	0	None
Lactol spirits	64742-89-6	0.15	Toluene
Low aromatic white spirit	64742-82-1	0	None
Mineral spirits	64742-88-7	0.01	Xylenes
Hydrotreated naphtha	64742-48-9	0	None
Hydrotreated light distillate	64742-47-8	0.001	Toluene
Stoddard solvent	8052-41-3	0.01	Xylenes
Super high-flash naphtha	64742-95-6	0.05	Xylenes
Varsol ® solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene
VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene
Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl

27.a.v.B. Table 6 of 40 CFR Part 63, Subpart QQQQ:

Table 6: Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Solvent Type	Average Organic HAP Mass Fraction	Typical Organic HAP, Percent by Mass
Aliphatic	0.03	1% xylene, 1% toluene, and 1% ethylbenzene
Aromatic	0.06	4% xylene, 1% toluene, and 1% ethylbenzene

27.b. *Determine the volume fraction of coating solids for each coating.* The permittee must determine the volume fraction coating solids (liters of coating solids per liter of coating or gallons of coating solids per gallon of coating) for each coating used during the compliance period by one of the following methods:

27.b.i. *ASTM Method D2697-86 (Reapproved 1998) or D6093-97.* The permittee may use ASTM Method D2697-86 (Reapproved 1998), “Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings” (incorporated by reference, see 40 CFR §63.14), or D6093-97, “Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings using a Helium Gas Pycnometer” (incorporated by reference, see 40 CFR §63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. If these values cannot be determined using these methods, the permittee may submit an alternative technique for determining their values for approval by the Administrator.

27.b.ii. *Information from the supplier or manufacturer of the material.* The permittee may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

27.b.iii. *Calculation of volume fraction of coating solids.* If the volume fraction of coating solids cannot be determined using the options in Condition 27.b.i or 27.b.ii, the permittee must determine it using the following equation:

$$V_s = 1 - \left(\frac{m_{volatiles}}{D_{avg}} \right)$$

Where:

- V_s = Volume fraction of coating solids, liters coating solids per liter coating or gallons coating solids per gallon of coating.
- $m_{volatiles}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), waste, and exempt compounds determined according to Method 24 in Appendix A of 40 CFR Part 60, grams volatile matter per liter coating or pounds volatile matter per gallon coating.
- D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter or pounds volatile matter per gallon volatile matter, determined from test results using ASTM Method D1475-90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-90 test results and other information sources, the test results will take precedence.

27.c. *Determine the density of each material.* Determine the density of each coating, thinner and cleaning material used during each month from test results using ASTM Method D1475-90, information from the supplier or manufacturer of the material, or reference sources providing

density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-90 test results and such other information sources, the test results will take precedence.

- 27.d. *Determine the volume of each material used.* Determine the volume (liters or gallons) of each coating, thinner and cleaning material used during each month by measurement or usage records.
- 27.e. *Calculate the mass of organic HAP emissions.* The mass of organic HAP emission is the combined mass of organic HAP contained in all coatings, thinners and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate it using Equation 1 as follows:

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

Where:

- H_e = Total mass of organic HAP emissions during the month, grams or pounds.
- A = Total mass of organic HAP in the coatings used during the month, grams or pounds, as calculated in Equation 1A of this Condition.
- B = Total mass of organic HAP in the thinners used during the month, grams or pounds, as calculated in Equation 1B of this Condition.
- C = Total mass of organic HAP in the cleaning materials used during the month, grams or pounds, as calculated in Equation 1C of this Condition.
- R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, grams or pounds, as determined according to Condition 27.e.iv. (The permittee may assign a value of zero to R_w if not using this allowance.)

- 27.e.i. Calculate the mass of organic HAP in the coatings used during the month using Equation 1A as follows:

$$A = \sum_{i=1}^m (Vol_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

- A = Total mass of organic HAP in the coatings used during the month, grams or pounds.
- $Vol_{c,i}$ = Total volume of coating, i , used during the month, liters or gallons.
- $D_{c,i}$ = Density of coating, i , grams coating per liter coating or pounds coating per gallon coating.
- $W_{c,i}$ = Mass fraction of organic HAP in coating, i , grams organic HAP per gram coating or pounds of organic HAP per pound coating.
- m = Number of different coatings used during the month.

- 27.e.ii. Calculate the mass of organic HAP in the thinners used during the month using Equation 1B as follows:

$$B = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

B	=	Total mass of organic HAP in the thinners used during the month, grams or pounds
Vol _{t,j}	=	Total volume of thinner, j, used during the month, liters or gallons.
D _{t,j}	=	Density of thinner, j, grams thinner per liter thinner or pounds thinner per gallon thinner.
W _{t,j}	=	Mass fraction of organic HAP in thinner, j, grams organic HAP per gram thinner or pounds organic HAP per pound thinner.
n	=	Number of different thinners used during the month.

- 27.e.iii. Calculate the mass of organic HAP in the cleaning materials used during the month using Equation 1C as follows:

$$C = \sum_{k=1}^p (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (\text{Eq. 1C})$$

Where:

C	=	Total mass of organic HAP in the cleaning materials used during the month, grams or pounds
Vol _{s,k}	=	Total volume of cleaning material, k, used during the month, liters or gallons.
D _{s,k}	=	Density of cleaning material, k, grams cleaning material per liter cleaning material or pounds cleaning material per gallon cleaning material.
W _{s,k}	=	Mass fraction of organic HAP in cleaning material, k, grams organic HAP per gram cleaning material or pounds organic Hap per pound cleaning material.
p	=	Number of different cleaning materials used during the month.

- 27.e.iv. If the permittee chooses to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1, then the permittee must determine it as follows:

- 27.e.iv.A. The permittee may include in the determination only waste materials that are generated by coating operations for which the permittee uses Equation 1 and that will be treated or disposed of by a facility regulated as a TSDF under 40 CFR Part 262, 264, 265 or 266. The TSDF may be either off-site or on-site. The permittee may not include organic HAP contained in wastewater.
- 27.e.iv.B. The permittee must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in the determination any waste materials sent to a TSDF during a month if the permittee has already included them in the amount collected and stored during that month or a previous month.

- 27.e.iv.C. Determine the total mass of organic HAP contained in the waste materials specified in Condition 27.e.iv.B.
- 27.e.iv.D. The permittee may use any reasonable methodology to determine the amount of waste materials and the total mass of organic HAP they contain, and the permittee must document the methodology as required in Condition 29.h. To the extent that waste manifests include this information, they may be used as part of the documentation of the amount of waste material and mass of organic HAP contained in them.

- 27.f. *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 as follows:

$$V_{st} = \sum_{i=1}^m (Vol_{c,i}) (V_{s,i}) \quad (\text{Eq. 2})$$

Where:

- V_{st} = Total volume of coating solids used during the month, liters or gallons.
 $Vol_{c,i}$ = Total volume of coating, i, used during the month, liters or gallons.
 $V_{s,i}$ = Volume fraction of coating solids for coating, i, determined according to Condition 27.b.
 m = Number of coatings used during the month.

- 27.g. *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids or pounds organic HAP per gallon coating solids, using Equation 3 as follows:

$$H_{yr} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12} V_{st}} \quad (\text{Eq. 3})$$

Where:

- H_{yr} = Organic HAP emission rate for the 12-month compliance period, grams organic HAP per liter coating solids or pounds organic HAP per gallon coating solids.
 H_e = Total mass of organic HAP emission, grams or pounds, from all materials used during month, y, as calculated by Equation 1 in Condition 27.e.
 V_{st} = Total volume of coating solids used during month, y, liters or gallons, as calculated by Equation 2 in Condition 27.f.
 y = Identifier for months.

- 27.h. *Compliance Determination.* The organic HAP emission rate for the initial 12-month compliance period, calculated using Equation 3 of Condition 27.g must be less than or equal to the applicable emission limit in Condition 26. The permittee must keep all records as required by Conditions 29 and 30.

28. To determine continuous compliance, the organic HAP emission rate for each compliance period, calculated using Equation 3 in Condition 27.g, must be less than or equal to the applicable emission limit in Condition 26. A compliance period consists of 12 months. Each month is the end of a compliance period consisting of that month and the preceding 11 months. The permittee must perform the calculations in Condition 27 on a monthly basis using data from the previous 12 months of operation. [40 CFR §63.4752]
- 28.a. If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in Condition 26, this is a deviation from the emission limitations for the compliance period and must be reported as specified in Conditions 31.e.
- 28.b. As part of each semiannual compliance report required by Condition 31, the permittee must identify the coating operation(s) for which the permittee used the emission rate without add-on controls option. If there were no deviations from the emission limitations, the permittee must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in Condition 26, determined according to Condition 27.
- 28.c. The permittee must retain records as specified in Conditions 29 and 30.

Records:

29. The permittee must collect and keep records of the data and information specified in this Condition. Failure to collect and keep these records is a deviation from the applicable standard. [40 CFR §63.4730]
- 29.a. A copy of each notification and report that is submitted to comply with Subpart QQQQ, and the documentation supporting each notification and report.
- 29.b. A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and cleaning material and the volume fraction of coating solids for each coating. If the permittee conducted testing to determine mass fraction of organic HAP density, or volume fraction of coating solids, the permittee must keep a copy of the complete test report. If the permittee uses information provided by the manufacturer or supplier of the material that was based on testing, the permittee must keep the summary sheet of results provided by the manufacturer or supplier. The permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier.
- 29.c. For each compliance period, the following records:
- 29.c.i. A record of the coating operations at which the permittee used each compliance option and the time periods (beginning and ending dates and times) the permittee used each option.
- 29.c.ii. For the emission rate without add-on control option, a record of the calculation of the total mass of organic HAP emission for the coatings, thinners and cleaning materials used each month, using Equation 1, 1A through 1C, and 2 of Condition 27; and, if applicable, the calculation used to determine mass organic HAP in waste materials according to Condition 27.e.iv; the calculation of the total volume of coating solids used each month, using Equation 2 of Condition 27.f; and the calculation of each 12-month organic HAP emission rate, using Equation 3 of Condition 27.g.
- 29.d. A record of the name and volume of each coating, thinner and cleaning material used during each compliance period.
- 29.e. A record of the mass fraction of organic HAP for each coating, thinner and cleaning material used during each compliance period.
- 29.f. A record of the volume fraction of coating solids for each coating used during each compliance period.
- 29.g. A record of the density for each coating, thinner and cleaning material used during each compliance period.

- 29.h. If the permittee uses an allowance in Equation 1 of Condition 27.e for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage and disposal facility (TSDF) according to Condition 27.e.iv, the permittee must keep records of the following information:
- 29.h.i. The name and address of each TSDF to which the permittee sent waste materials for which the permittee uses an allowance in Equation 1 of Condition 27.e; a statement of which subparts under 40 CFR Parts 262, 264, 265 and 266 apply to the facility; and the date of each shipment.
 - 29.h.ii. Identification of the coating operations producing waste materials included in each shipment and the month or months in which the permittee used the allowance for these materials in Equation 1 of Condition 27.e.
 - 29.h.iii. The methodology used in accordance with Condition 27.e.iv.D to determine the total amount of waste materials sent to or the amount collected, stored and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.
- 29.i. The permittee must keep records of the date, time and duration of each deviation.
30. The records must be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database. [40 CFR §63.4731]
- 30.a. As specified in 40 CFR §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record.
 - 30.b. The permittee must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report or record, according to 40 CFR §63.10(b)(1). The permittee may keep the records off-site for the remaining 3 years.

Reports:

31. The permittee must submit semiannual compliance reports as part of the semi-annual reports required by Condition 67. [40 CFR §63.4720]
- 31.a. *Dates.* Each semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 and July 1 through December 31.
 - 31.b. *Inclusion with title V report.* The permittee must report all deviations as defined in Subpart QQQQ in the semiannual report required by Condition 67. If the permittee submits a semiannual compliance report along with, or as part of, the semiannual report required by Condition 67, and the semiannual compliance report includes all required information concerning deviations from any emission limitation in Subpart QQQQ, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the permittee may have to report deviations from the permit requirements to the permitting authority.
 - 31.c. *General Requirements.* The semiannual compliance report must contain the information specified below and in Conditions 31.d and 31.e:
 - 31.c.i. Company name and address.
 - 31.c.ii. Statement by a responsible official with that official's name, title and signature, certifying the truth, accuracy and completeness of the content of the report.
 - 31.c.iii. Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

- 31.c.iv. The calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.
- 31.d. *No deviations.* If there are no deviations from the emission limitations in Condition 26, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.
- 31.e. *Deviations: emission rate without add-on controls option.* If the permittee used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in Condition 26, the semiannual compliance report must contain the following information:
 - 31.e.i. The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in Condition 26.
 - 31.e.ii. The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. The permittee must provide the calculations for Equations 1, 1A through 1C, 2 and 3, in Condition 27; and, if applicable, the calculation used to determine the mass of organic HAP in waste materials according to Condition 27.e.iv. The permittee does not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports).
 - 31.e.iii. A statement of the cause of each deviation.

PLANT SITE EMISSION LIMITS

- 32. 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]

Table 7: Plant Site Emission Limits (PSELs)

Pollutant	Plant Site Emission Limit (tons/yr)
PM	97
PM ₁₀	87
PM _{2.5}	66
SO ₂	39
NO _x	65
CO	104
VOC	143
GHG (CO ₂ e)	74,000

EMISSION FEES

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

TESTING REQUIREMENTS

The testing conditions in this section are based on OAR 340-218-0050(3)(a); unless otherwise specified.

34. Unless otherwise specified in this permit, the permittee must conduct all testing in accordance with DEQ's Source Sampling Manual [OAR 340-212-0120]
 - 34.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. Permittee should be aware, 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.
 - 34.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.
 - 34.c. Unless otherwise specified by permit condition or DEQ approved source test plan, all compliance source tests must be performed as follows:
 - 34.c.i. At least 90% of the design capacity for new or modified equipment;
 - 34.c.ii. At least 90% of the maximum operating rate for existing equipment; or
 - 34.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.
 - 34.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.
 - 34.e. Source test reports prepared in accordance with 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.
35. BLR-S must be tested for PM emissions once during the permit term by no later than December 31, 2018. BLR-N must be tested once for PM emissions within 90 days of operating greater than 168 hours in aggregate in a calendar year.
 - 35.a. DEQ Method 5 and Method 202 must be used for measuring PM emissions from the boilers. Each test run must be a minimum of 60 minutes long with a minimum sample volume of 31.8 dscf. Test results must be reported as grains per dry standard cubic feet (gr/dscf), gr/dscf corrected to 12% CO₂, pounds per hour, and pounds per thousand pounds of steam produced.
 - 35.b. During each test run, the permittee must record the following information:
 - 35.b.i. Visible emissions as measured by EPA Method 9 for a minimum of 6 minutes during or within 30 minutes before or after each Oregon Method 5 test run;
 - 35.b.ii. Boiler steam rate (lbs/hr);
 - 35.b.iii. Boiler residual oxygen (%); and
 - 35.b.iv. For BLR-S, the pressure drop across the multiclone (inches of water column).
36. Compliance source testing is not required for emissions units V-N, PV and MH during this permit term, but if testing were performed to determine compliance with the emission limits in Conditions 17 and 19, the following test methods must be used to measure the emissions:

Table 8: Compliance Source Testing Methods

Emissions Unit	Pollutant	Test Method
V-N	PM	Oregon Method 7
PV	PM	Oregon Method 7
MH	PM	Oregon Method 5 or 8
NG1	Visible Emissions (opacity)	EPA Method 9
NG1	PM	Oregon Method 5

MONITORING REQUIREMENTS

The monitoring conditions in this section are based on OAR 340-218-0050(3)(a); unless otherwise specified.

General Monitoring Requirements:

37. The permittee must not knowingly render inaccurate any required monitoring device or method. [OAR 340-218-0050(3)(a)(E)]
38. The permittee must use the same methods to determine compliance as those used 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)]
39. 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)]

Facility-Wide Monitoring

40. At least once each week for a minimum period of 6 minutes, the permittee must visually survey the downwind property boundaries using the procedures outlined in EPA Method 22. If visible emissions are detected for more than 5% of the survey time, the permittee must:
 - 40.a. Immediately take corrective action to minimize the fugitive emissions, including but not limited to those actions identified in Condition 4; or
 - 40.b. Conduct an EPA Method 9 test within 24 hours.

The permittee must record in a log book the date and time of the surveys, the results of the surveys, and the corrective action, if performed.
41. The permittee must record in a log, the date, time and action taken for all I&M activities listed in Condition 4.
42. The permittee must maintain a log of each nuisance complaint received by the permittee during the operation of the facility. Documentation must include date of contact, time of observed nuisance condition, description of nuisance condition, location of receptor, status of plant operation during the observed period and time of response to complainant. A plant representative must immediately investigate the condition following the receipt of the nuisance complaint and a plant representative must provide a response to the complainant within 24 hours, if possible. This condition is only enforceable by the state. [OAR 340-218-0050(3)(a)]

Emissions Unit Specific Monitoring

Boilers (BRL-S and BRL-N):

43. At least once a month, the permittee must measure visible emissions from each boiler stack (BLR-S and BLR-N) in accordance with EPA Method 9. Each EPA Method 9 test must be a minimum of 6 minutes long unless any one reading is greater than 40% opacity, then the observation period must be 60 minutes or until a violation of the standard in Condition 8 has been documented, whichever period is shorter.
- 43.a. If any test shows a violation of the applicable limit, the permittee must:
- 43.a.i. Within 30 minutes of the test, begin corrective action to remedy the violation; and
- 43.a.ii. Perform daily tests until at least 5 consecutive days show emissions below the limit.
- 43.b. All visible emissions tests must be performed during periods that the emission devices are in operation.
- 43.c. The permittee must record in a log book the date and time of the tests, the results of the tests, and the corrective action, if required.
44. The permittee must calibrate, maintain, operate and record the output of a continuous monitoring system for measuring the residual oxygen and steam output of each boiler (BLR-S and BLR-N) in accordance with the manufacturers written instructions. [OAR 340-226-0130]
- 44.a. Real time data must be displayed at least once every minute that the boiler is in operation.
- 44.b. Total steam and average residual oxygen must be recorded for each hour of operation.
- 44.c. If residual oxygen from the hog fuel boiler is less than or greater than the operating range established below other than during startup and shut down, the permittee must take corrective action.
- 44.c.i. South Boiler – 6.2% to 14.5% (3 hour average)
- 44.c.ii. North Boiler – 7.8% to 15.6% (3 hour average)
- 44.d. During periods of monitor malfunction, excluding periods of calibrations and routine maintenance, the permittee must monitor boiler opacity as required by Condition 43, except the monitoring must be conducted for 6 minutes during each one hour of monitor downtime.
- 44.e. All excursions of the residual oxygen parameter operating ranges and the corrective action taken to return the boilers to highest and best practicable treatment and control must be recorded in a boiler operating log.
- 44.f. A residual oxygen parameter operating range excursion is not necessarily a violation of the particulate matter emission standard.
45. At least once each year during a regularly scheduled maintenance outage, the permittee must inspect the pollution control device on BLR-S for physical degradation that could affect the performance of the control device, including but not limited to any individual cyclones within the multiclone that are plugged, missing or damaged to the extent they are no longer effective. The results of the inspection and any repair activities must be recorded in a log.

Veneer Dryers (V-N):

46. At least once a month, the permittee must measure visible emissions from one dryer stack on each veneer dryer stack (V-N) for each species of veneer dried during the month. Permittee will observe all stacks on each dryer and perform an EPA Method 9 test (average of 24 consecutive observations) on the stack showing the greatest visible emissions for each dryer. If the EPA Method 9 result on this stack exceeds permit limitations, permittee must perform an EPA Method 9 test on each stack on that particular dryer.
- 46.a. If any test shows a violation of the applicable limit, the permittee must:
- 46.a.i. Within 30 minutes of the test, begin corrective action to remedy the violation; and
- 46.a.ii. Perform daily tests until at least 5 consecutive days show emissions below the limit.

- 46.b. All visible emissions tests must be performed during periods that the emission devices are in operation.
 - 46.c. The permittee must record in a log book the date and time of the tests, the results of the tests and the corrective action, if required.
47. The permittee must continue to implement the operation and maintenance (O&M) plan for the veneer dryers (D-1 and D-2) as follows:
- 47.a. The O&M plan must include an inspection and maintenance program for minimizing emissions.
 - 47.b. The O&M plan must be maintained on site and made available to the Department inspector upon request.
 - 47.c. The O&M plan must be reviewed by the permittee at least annually and revised, if the work practices change.
 - 47.d. The permittee must record in a veneer dryer operating log book the results of all inspections and maintenance performed in accordance with the O&M plan required by this condition.

Press Vents (PV) and Material Handling (MH):

48. At least once a month, the permittee must measure visible emissions from each press vent stack (PV) in accordance with EPA Method 9. If recorded opacity measurements are below the standard in Condition 18 for three consecutive months, subsequent EPA Method 9 performance testing may be reduced to quarterly. Each EPA Method 9 test must be a minimum of 6 minutes long unless any one reading is greater than 20% opacity, then the observation period must be 60 minutes or until a violation of the standard in Condition 18 has been documented, whichever period is shorter.
- 48.a. If any visible emissions test shows a violation of the applicable limit, the permittee must:
 - 48.a.i. Within 30 minutes of the test, begin corrective action to remedy the violation; and
 - 48.a.ii. Perform daily tests until at least 5 consecutive days show emissions below the limit.
 - 48.b. All visible emissions tests must be performed during periods that the emission devices are in operation.
 - 48.c. The permittee must record in a log book the date and time of the tests, the results of the tests and the corrective action, if required.
49. At least once a month, the permittee must conduct a visible emissions survey for a minimum period of 6 minutes on each material handling stack (MH) using the procedures outlined in EPA Method 22. If visible emissions, excluding condensed water vapor, from an individual stack are detected for more than 5% (18 seconds) of the survey time, an EPA Method 9 test must be performed on that stack for a minimum of six minutes. If any EPA Method 9 reading is greater than 20% opacity, then the observation period must be 60 minutes or until a violation of the standard in Condition 18 is documented, whichever period is shorter.
- 49.a. If any visible emissions test shows a violation of the applicable limit, the permittee must:
 - 49.a.i. Within 30 minutes of the test, begin corrective action to remedy the violation; and
 - 49.a.ii. Perform daily tests until at least 5 consecutive days show emissions below the limit.
 - 49.b. All visible emissions tests must be performed during periods that the emission devices are in operation.
 - 49.c. The permittee must record in a log book the date and time of the tests, the results of the tests and the corrective action, if required.
50. The permittee must inspect each Material Handling (MH) baghouse and cyclone at least quarterly and replace the bags or make any necessary repairs to retain efficiency. Records of the inspections and any corrective action must be maintained in an inspection book.
51. The permittee must calculate the average hourly combined PM emissions from plywood presses (PV) and material handling (MH) for each day by the end of the next business day, as follows:

- 51.a. The particulate emissions must be calculated in pounds per hour according to the following equation:

$$E = (P \times EF)/T$$

Where:

E	=	Combined particulate emissions (lbs/hr)
P	=	Daily plywood production (MSF – 3/8” basis)
EF	=	PM emission factor identified for GS-3 in Condition 54.a
T	=	Hours of operation in a day

- 51.b. As an alternative to daily calculations, the permittee may establish maximum production rates that, if not exceeded, would ensure that the emissions limitations are not being exceeded. If the permittee uses this option, the daily inspection log must include a record of the average hourly production rates for each day of operation. In addition, the permittee must be capable of calculating emissions in accordance with this condition at any time upon request from the Department.

Natural Gas Fired Heaters (NG1):

52. The permittee must maintain monthly and annual records of the type and amount of fuel used in emissions unit NG1.

Greenhouse Gasses Registration and Reporting:

53. The permittee must register and report greenhouse gas emissions with DEQ in accordance with OAR 340-215 using the following greenhouse reporting protocol. The greenhouse gas report must be certified by the responsible official consistent with OAR 340-218-0040(5).]
- 53.a. Calculate the greenhouse gas emissions from the combustion of fuels using the DEQ EZ-filer program.
- 53.b. Calculate the greenhouse gas emissions from the steam production when using biomass fuels using the DEQ EZ-filer program.
- 53.c. Add the GHG emissions calculated in Conditions 53.a and 53.b to obtain the total GHG emissions as CO₂e.

Plant Site Emissions Monitoring: [OAR 340-222-0080]

54. The permittee must determine compliance with the Plant Site Emission Limits established in Condition 32 of this permit by conducting monitoring and calculations for each 12-month period in accordance with the following procedures, test methods and frequencies:
- 54.a. The permittee must calculate emissions using the following formula, process parameters and emission factors:

$$E = P_{eu} \times EF_{eu} \times K$$

Where:

E	=	Pollutant emissions in lbs/month and tons/yr.
P _{eu}	=	Process parameter identified in the table below;
EF _{eu}	=	Emission factor identified for each emissions unit and pollutant in the table below;
K	=	Conversion constant: 1 lb/lb for daily and monthly emissions calculations; 1 ton/2,000 lbs for annual emissions calculations.

Table 9: Emission Factors for Criteria Pollutants:

ES Code ¹	ES Description	Throughput Type/ Units	Emissions Factors (lb/throughput unit)						
			PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
PS-1	South Boiler (BLR-S)	Steam [1000 POUNDS]	0.52	0.50	0.3	0.01	0.52	1.13	0.01
PS-2	North Boiler (BLR-N)		0.35	0.30	0.22	0.01	0.37	0.08	0.004
GS-1	Veneer Dryers (V-N)	Veneer 3/8 Inch Basis [1000 SQUARE FEET]	0.36	0.36	0.36		0.12	0.02	0.22
GS-2	Natural Gas Devices (NG1)	Natural Gas [MILLION CUBIC FEET]	2.5	2.5	2.5	1.7	100	84	5.5
GS-3	Press Vents (PV) and Material Handling Cyclones and Baghouses	3/8-inch Plywood [1000 SQUARE FEET]	0.11	0.074	0.062				
FS-1	Storage Piles (SP)		0.09	0.03	0.015				

1 DEQ Codes

Table 10: Emission Factors for Hazardous Air Pollutants:

ES Description	Throughput Type/Units	Emissions Factors (lb/throughput unit)					
		HCl	Formaldehyde	Methanol	Acrolein	Acetaldehyde	Other HAPs
South Boiler (BLR-S)	Steam [1000 POUNDS]	0.0050	0.0004				0.022
North Boiler (BLR-N)		0.0055	0.0004				0.022
Veneer Dryers (V-N)	Veneer 3/8 Inch Basis [1000 SQUARE FEET]		0.063	0.053	0.0029	0.033	
Natural Gas Devices (NG1)	Natural Gas [MILLION CUBIC FEET]						1.89
Press Vents (PV), Dust Collector and Steam Vat	3/8-inch Plywood [1000 SQUARE FEET]		0.0068	0.029		0.0047	

54.b. The permittee must maintain, calibrate and operate a steam flow monitor on both boilers (BLR-S, BLR-N) in accordance with the manufacturer's written instructions.

55. For emission unit FW (including UF and PF resins):

55.a. The permittee must maintain usage records of all materials that contain VOCs and calculate the annual emissions each month for the previous 12 consecutive calendar months using the following formula:

$$\text{VOC}_{\text{FW}} = \frac{\sum[(\text{RM}_v \times \text{D}_v \times \text{VOC}_v) - (\text{RM}_d \times \text{D}_d \times \text{VOC}_d) - (\text{VOC}_c)]}{2000}$$

Where:

VOC_{FW}	=	VOC emissions from emissions unit FW in tons/yr;
RM_v	=	Amount of each type of VOC containing raw material used in gal/yr;
RM_d	=	Amount of each type of VOC containing raw material disposed in gal/yr;
D_v	=	Density of each type of VOC containing raw material used in lbs/gal from MSDS;
D_d	=	Density of each type of VOC containing raw material disposed in lbs/gal from MSDS;
VOC_v	=	VOC content of raw material (weight fraction from MSDS);
VOC_d	=	VOC content of disposed material (weight fraction);
VOC_c	=	Amount of VOC retained in the product (lbs), use a constant equal to "0" if not quantified.

55.b. The permittee must maintain usage records of all materials that contain HAPs and calculate the annual emissions each month for the previous 12 consecutive calendar months using the following formula:

$$\text{HAP}_{\text{FW}} = \frac{\sum[(\text{RM}_v \times \text{D}_v \times \text{HAP}_v) - (\text{RM}_d \times \text{D}_d \times \text{HAP}_d) - (\text{HAP}_c)]}{2000}$$

Where:

HAP_{FW}	=	HAP emissions from emissions unit FW in tons/yr;
RM_v	=	Amount of each type of HAP containing raw material used in gal/yr;
RM_d	=	Amount of each type of HAP containing raw material disposed in gal/yr;
D_v	=	Density of each type of HAP containing raw material used in lbs/gal from MSDS;
D_d	=	Density of each type of HAP containing raw material disposed in lbs/gal from MSDS;
HAP_v	=	HAP content of raw material (weight fraction from MSDS);
HAP_d	=	HAP content of disposed material (weight fraction);
HAP_c	=	Amount of HAP retained in the product (lbs), use a constant equal to "0" if not quantified.

56. For the purpose of determining compliance with the Plant Site Emission Limit for VOC and HAP, the permittee must add the VOC and HAP emissions determined in Conditions 54 and 55.

57. The emission factors listed in Tables 9 through 11 in Condition 54.a. are not enforceable limits unless otherwise specified in this permit. Compliance with PSELs must be determined using the calculations contained in Conditions 54, 55 and 56 using the monitored parameters recorded during the reporting period and the emission factors contained in Tables 9 through 11 in Condition 54.a, 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 38.

57.a. The permittee must conduct emission factor verification testing in accordance with the procedures in Condition 34 for the following emission units/pollutants by no later than December 31, 2021:

Table 11: HAPs Emission Factor Verification Testing and Methods

Emission Unit	Pollutants	Test Methods
Boilers (BLR-N)	HC1	EPA Method 26A
Veneer Dryers (Ponderosa Pine, White Fir, Douglas Fir, Poplar)	Acetaldehyde	PCWP MACT standard methods
	Acrolein	PCWP MACT standard methods
	Formaldehyde	PCWP MACT standard methods
	Methanol	PCWP MACT standard methods
Press Vents	Formaldehyde	PCWP MACT standard methods
	Methanol	PCWP MACT standard methods

- 57.b. Each emissions unit process stack and operating mode (e.g., product or raw material) must be tested unless it can be demonstrated that a particular emissions unit process stack or operating mode is representative of other emission unit process stacks or operating modes, or the testing may be conducted under a single worst case operating condition for a particular emissions unit. The emissions units and operating modes to be tested must be included in the source test plan and approved by the Department prior to testing.

RECORDKEEPING REQUIREMENTS

The recordkeeping conditions in this section are based on OAR 340-218-0050(3)(b); unless otherwise specified.

General Recordkeeping Requirements

58. The permittee must maintain the following general records of testing and monitoring required by this permit: [OAR 340-218-0050(3)(b)(A)]
- 58.a. The date, place as defined in the permit, and time of sampling or measurements;
 - 58.b. The date(s) analyses were performed;
 - 58.c. The company or entity that performed the analyses;
 - 58.d. The analytical techniques or methods used;
 - 58.e. The results of such analyses;
 - 58.f. The operating conditions as existing at the time of sampling or measurement; and
 - 58.g. The records of quality assurance for continuous monitoring systems (including but not limited to quality control activities, audits, calibration drift checks).
59. 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 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, 340-214-0114, and 340-218-0050(3)(b)]
60. 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)]
61. 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)]

Source Specific Recordkeeping Requirements

62. The permittee shall maintain the following specific records of required monitoring information:
- 62.a. Boilers (BLR-S and BLR-N):
 - 62.a.i. Visible emissions observation reports and corrective action log;
 - 62.a.ii. Hourly, monthly and annual steam produced by each boiler;
 - 62.a.iii. Hourly average residual oxygen for each boiler; and
 - 62.a.iv. Boiler operating and maintenance log(s) including corrective action(s)
 - 62.b. Veneer Dryers (V-N):
 - 62.b.i. Visible emissions observation reports and corrective action log;
 - 62.b.ii. Monthly and annual veneer dried in each dryer by type and species, including redry (MSF on a 3/8" basis); and
 - 62.b.iii. Dryer operating and maintenance log(s) including corrective action(s).
 - 62.c. Presses (PV) and Material Handling (MH):
 - 62.c.i. Visible emissions observation reports and corrective action log;
 - 62.c.ii. Monthly and annual hours of press operation (PV);
 - 62.c.iii. Monthly and annual records of material throughput (BDT, green tons, panels) for material handling devices;
 - 62.c.iv. Material handling inspection log book including corrective action(s); and
 - 62.c.v. Combined particulate emissions from emissions units PV and MH, as calculated according to Condition 51.
 - 62.d. Facility Wide VOC (FW, including UF and PF resins):
 - 62.d.i. Amount, density & VOC content of each type of VOC containing raw material used in gal/month, gal/yr & weight fraction;
 - 62.d.ii. Amount, density & VOC content of each type of VOC containing raw material disposed in gal/month, gal/yr & weight fraction; and
 - 62.d.iii. Monthly and annual VOC contained in the product (lbs) if quantified for determining compliance with PSEL.
 - 62.e. Facility Wide HAP (FW, including UF and PF resins):
 - 62.e.i. Amount, density & HAP content of each type of HAP containing raw material used in gal/month, gal/yr & weight fraction;
 - 62.e.ii. Amount, density & HAP content of each type of HAP containing raw material disposed in gal/month, gal/yr & weight fraction; and
 - 62.e.iii. Monthly and annual HAP contained in the product (lbs) if quantified for determining compliance with PSEL.
 - 62.f. Monthly and annual natural gas combusted in NG1 (MMCF);
 - 62.g. Monthly and annual storage pile throughput (BDT);
 - 62.h. Monthly and annual records of plywood produced (MSF on a 3/8" basis);
 - 62.i. Weekly facility excess fugitive emissions inspections and corrective action (Condition 40);
 - 62.j. A log of fugitive dust inspection and maintenance activities (Condition 41);
 - 62.k. Nuisance complaint and corrective action log (Condition 42);
 - 62.l. Source test and emission factor verification test reports;
 - 62.m. Excess emissions log;
 - 62.n. Permit deviations;
 - 62.o. Plant site emissions calculated monthly for the previous 12-month period; and
 - 62.p. The records specified in Conditions 12 and 29.

REPORTING REQUIREMENTS

General Reporting Requirements

63. Excess Emissions Reporting: The permittee must report all excess emissions as follows: [OAR 340-214-0300 through 340-214-0360]
- 63.a. Immediately (within 1 hour of the event) notify DEQ of an excess emission event by phone, email or facsimile; and
 - 63.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [OAR 340-214-0340(1)]
 - 63.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;
 - 63.b.ii. The date and time the permittee notified DEQ of the event;
 - 63.b.iii. The equipment involved;
 - 63.b.iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction or emergency;
 - 63.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;
 - 63.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);
 - 63.b.vii. The final resolution of the cause of the excess emissions; and
 - 63.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.
 - 63.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.
 - 63.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.
 - 63.e. The permittee must notify DEQ of planned startup/shutdown or scheduled maintenance events.
 - 63.f. The permittee must continue to 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 the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]
64. Permit Deviations 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 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 63.
65. All required reports must be certified by a responsible official consistent with OAR 340-218-0040(5); [OAR 340-218-0050(3)(c)(D)]

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

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

<p>Submit all Notices and applications that do not include payment to the Permit Coordinator.</p> <p>Submit all reports (annual reports, source test plans and reports, etc.) to DEQ’s Eastern Region. If you know the name of the Air Quality staff member responsible for your permit, please include it.</p> <p>DEQ - Eastern Region 475 NE Bellevue Dr., Suite 110 Bend, OR 97701 541-388-6146</p>	<p>Submit payments for invoices, applications to modify the permit, and any other payments to DEQ’s Business Office:</p> <p>700 NE Multnomah Street, Suite #600 Portland, OR 97232 503-229-5696</p>	<p>Submit all reports for EPA requirements to:</p> <p>Clean Air Act Compliance Manager US EPA Region 10 MS: OCE-101 1200 Sixth Avenue, Ste. 900 Seattle, WA 98101</p>
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Semi-Annual and Annual Reports

67. The permittee must submit three (3) copies of reports of any required monitoring at least every 6 months, completed on forms approved by the Department. 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)]
- 67.a. The first semi-annual report is due on **July 30** and must include the semi-annual compliance certification, OAR 340-218-0080.
 - 67.b. The annual report is due on **March 1** and must consist of the following:
 - 67.b.i. The emission fee report; [OAR 340-220-0100]
 - 67.b.ii. Greenhouse gas emissions report; [OAR 340-215-0040(1)]
 - 67.b.iii. A summary of the excess emissions upset log; [OAR 340-214-0340]
 - 67.b.iv. The second semi-annual compliance certification; and [OAR 340-218-0080]
 - 67.b.v. The biennial report specified in Condition 13.a.
68. In addition to the information listed in Condition 67.b, the annual monitoring report must include the following information:
- 68.a. The annual facility wide emissions calculated monthly according to Conditions 54, 55 and 56 for each rolling 12-month period;
 - 68.b. Annual steam production for the boilers (BLR-S, BLR-N);
 - 68.c. Annual production or operating parameter for the following emission units:
 - 68.c.i. Total veneer dried in each dryer by species on a 3/8” basis;
 - 68.c.ii. Hours of operation for the plywood presses (PV);
 - 68.d. Annual amount of natural gas combusted in NG1, (MMCF);
 - 68.e. Annual VOC (FW, including UF and PF resins) material usage as follows:
 - 68.e.i. Amount, density & VOC content of each type of VOC containing raw material used in gallons & VOC weight fraction;

- 68.e.ii. Amount, density & VOC content of each type of VOC containing raw material disposed in gallons & weight fraction;
 - 68.e.iii. VOC contained in the product (lbs) if quantified for determining compliance with PSEL;
 - 68.f. Annual Greenhouse gas (GHG) emissions as calculated according to Condition 53.
 - 68.g. Annual HAP (FW, including UF and PF resins) material usage as follows:
 - 68.g.i. Amount, density & HAP content of each type of HAP containing raw material used in gallons & HAP weight fraction;
 - 68.g.ii. Amount, density & HAP content of each type of HAP containing raw material disposed in gallons & weight fraction;
 - 68.g.iii. HAP contained in the product (lbs) if quantified for determining compliance with PSEL;
 - 68.h. Summary of any nuisance complaints; and
 - 68.i. Annual plywood produced (MSF on a 3/8" basis).
69. 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)]
- 69.a. The identification of each term or condition of the permit that is the basis of the certification;
 - 69.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 requirements that are incorporated by reference into the permit. When certifying compliance with new applicable requirements that are not yet in the permit, the permittee must provide the information required by this condition.* If necessary, the permittee 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;
 - 69.c. The status of compliance with terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification must be based on the method or means designated in Condition 69.b of this rule. 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
 - 69.d. Such other facts as DEQ may require to determine the compliance status of the source.
 - 69.e. The semi-annual compliance certification must also include any additional information specified in Conditions 13.a, 28.b and 31, including, but not limited to any required statements.
70. 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)]
71. The following State and Federal air quality requirements are not applicable to this facility for the reasons stated: [OAR 340-218-0110]

NON-APPLICABLE REQUIREMENTS

Table 12: Non-Applicable Requirements

Rule Citation	Summary	Reason for Not Being Applicable
40 CFR Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	The boilers were manufactured and installed prior to June 9, 1989
40 CFR Part 63, Subpart DDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Plywood and Composite Wood Products	CFP is not a major source of HAP emissions
40 CFR Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	These standards have been stayed by EPA, but they would not apply because CFP is not a major source of HAP emissions
63.11196(a)(1), (b), (c), (d); 63.11201(a), (b), (d); 63.11205(b) and (c); 63.11210 (a), (b), (d), (e); 63.11211, 63.11212, 63.11213, 63.11214(a), (d); 63.11220; 63.11221; 63.11222; 63.11223(c); 63.11224, 63.11225(a)(3) and (5), (c)(3), (6), (7), (e); 63.11226	40 CFR Part 63, Subpart JJJJJ Area Source Requirements for Boilers that are Subject to Emission Limits and Operating Limits	The boilers at the CFP facility are not subject to emission limits and operating limits

GENERAL CONDITIONS

G1. General Provision

Terms not otherwise defined in this permit have the meaning assigned to such terms in the referenced regulation.

G2. Reference materials

Where referenced in this permit, the versions of the following materials are effective as of the dates noted unless otherwise specified in this permit:

- a. Source Sampling Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A4;
- b. Continuous Monitoring Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A6; and
- c. All state and federal regulations as in effect on the date of issuance of this permit.

G3. Applicable Requirements [OAR 340-218-0010(3)(b)]

Oregon Title V Operating Permits do not replace requirements in Air Contaminant Discharge Permits (ACDP) issued to the source even if the ACDP(s) have expired. For a source operating under a Title V permit, requirements established in an earlier ACDP remain in effect notwithstanding expiration of the ACDP or Title V permit, unless a provision expires by its terms or unless a provision is modified or terminated following the procedures used to establish the requirement initially. Source specific requirements, including, but not limited to TACT, RACT, BACT, and LAER requirements, established in an ACDP must be incorporated into the Oregon Title V Operating Permit and any revisions to those requirements must follow the procedures used to establish the requirement initially.

G4. Compliance [OAR 340-218-0040(3)(n)(C), 340-218-0050(6), and 340-218-0080(4)]

- a. The permittee must comply with all conditions of this permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance is supplemental to, and does not sanction noncompliance with the applicable requirements on which it is based.
- c. For applicable requirements that will become effective during the permit term, the source must meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

G5. Masking Emissions

The permittee must not install or use any device or other means designed to mask the emission of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [OAR 340-208-0400] This condition is enforceable only by the State.

G6. Credible Evidence

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements. [OAR 340-214-0120]

G7. Certification [OAR 340-214-0110, 340-218-0040(5), 340-218-0050(3)(c)(D), and 340-218-0080(2)]

Any document submitted to DEQ or EPA pursuant to this permit must contain certification by a responsible official of truth, accuracy and completeness. All certifications must state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and, complete. The permittee must promptly, upon discovery, report to DEQ a material error or omission in these records, reports, plans, or other documents.

G8. Open Burning [OAR Chapter 340, Division 264]

The permittee is prohibited from conducting open burning, except as may be allowed by OAR 340-264-0020 through 340-264-0200.

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR Chapter 340-248-0005 through 340-248-0180 (state-only enforceable) and 340-248-0205 through 340-248-0280]

The permittee must comply with OAR Chapter 340, Division 248, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G10. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-260-0040]

The permittee must comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G11. Permit Shield [OAR 340-218-0110]

- a. Compliance with the conditions of the permit is deemed compliance with any applicable requirements as of the date of permit issuance provided that:
 - i. Such applicable requirements are included and are specifically identified in the permit, or
 - ii. DEQ, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- b. Nothing in this rule or in any federal operating permit alters or affects the following:
 - i. The provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);
 - ii. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - iii. The applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or
 - iv. The ability of DEQ to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).
- c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-218-0150(1)(h), significant permit modification, or reopening for cause by DEQ.

G12. Inspection and Entry [OAR 340-218-0080(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee must allow DEQ, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

- a. Enter upon the permittee's premises where an Oregon Title V Operating Permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. As authorized by the FCAA or state rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G13. Fee Payment [OAR 340-220-0010, and 340-220-0030 through 340-220-0190]

The permittee must pay an annual base fee and an annual emission fee for particulates, sulfur dioxide, nitrogen oxides, and volatile organic compounds. The permittee must submit payment to the Department of Environmental Quality, Financial Services, 811 SW 6th Ave., Portland, OR 97204, within 30 days of date DEQ mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes must be submitted in writing to DEQ. Payment must be made regardless of the dispute. User-based fees will be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G14. Off-Permit Changes to the Source [OAR 340-218-0140(2)]

- a. The permittee must monitor for, and record, any off-permit change to the source that:
 - i. Is not addressed or prohibited by the permit;
 - ii. Is not a Title I modification;
 - iii. Is not subject to any requirements under Title IV of the FCAA;
 - iv. Meets all applicable requirements;
 - v. Does not violate any existing permit term or condition; and
 - vi. May result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in OAR 340-200-0020.
- b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), must be submitted to DEQ and the EPA.
- c. The permittee must keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.
- d. The permit shield of Condition G11 does not extend to off-permit changes.

G15. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]

- a. The permittee must monitor for, and record, any section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:
 - i. Violate an applicable requirement;
 - ii. Contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or
 - iii. Be a Title I modification.
- b. A minimum 7-day advance notification must be submitted to DEQ and the EPA in accordance with OAR 340-218-0140(3)(b).
- c. The permit shield of Condition G11 does not extend to section 502(b)(10) changes.

G16. Administrative Amendment [OAR 340-218-0150]

Administrative amendments to this permit must be requested and granted in accordance with OAR 340-218-0150. The permittee must promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

- a. Legal change of the registered name of the company with the Corporations Division of the State of Oregon, or
- b. Sale or exchange of the activity or facility.

G17. Minor Permit Modification [OAR 340-218-0170]

The permittee must submit an application for a minor permit modification in accordance with OAR 340-218-0170.

G18. Significant Permit Modification [OAR 340-218-0180]

The permittee must submit an application for a significant permit modification in accordance with OAR 340-218-0180

G19. Staying Permit Conditions [OAR 340-218-0050(6)(c)]

Notwithstanding Conditions G16 and G17, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G20. Construction/Operation Modification [OAR 340-218-0190]

The permittee must obtain approval from DEQ prior to construction or modification of any stationary source or air pollution control equipment in accordance with OAR 340-210-0200 through OAR 340-210-0250.

G21. New Source Review Modification [OAR 340-224-0010]

The permittee may not begin construction of a major source or a major modification of any stationary source without having received an Air Contaminant Discharge Permit (ACDP) from DEQ and having satisfied the requirements of OAR 340, Division 224.

G22. Need to Halt or Reduce Activity Not a Defense [OAR 340-218-0050(6)(b)]

The need to halt or reduce activity will not be a defense. It will not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G23. Duty to Provide Information [OAR 340-218-0050(6)(e) and OAR 340-214-0110]

The permittee must furnish to DEQ, within a reasonable time, any information that DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee must also furnish to DEQ copies of records required to be retained by the permit or, for information claimed to be confidential, the permittee may furnish such records to DEQ along with a claim of confidentiality.

G24. Reopening for Cause [OAR 340-218-0050(6)(c) and 340-218-0200]

- a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by DEQ.
- b. A permit must be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).
- c. Proceedings to reopen and reissue a permit must follow the same procedures as apply to initial permit issuance and affect only those parts of the permit for which cause to reopen exists.

G25. Severability Clause [OAR 340-218-0050(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G26. Permit Renewal and Expiration [OAR 340-218-0040(1)(a)(D) and 340-218-0130]

- a. This permit expires at the end of its term, unless a timely and complete renewal application is submitted as described below. Permit expiration terminates the permittee's right to operate.
- b. Applications for renewal must be submitted at least 12 months before the expiration of this permit, unless DEQ requests an earlier submittal. If more than 12 months is required to process a permit renewal application, DEQ must provide no less than six (6) months for the owner or operator to prepare an application.
- c. Provided the permittee submits a timely and complete renewal application, this permit will remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G27. Permit Transference [OAR 340-218-0150(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-218-0150(1)(d).

G28. Property Rights [OAR 340-200-0020 and 340-218-0050(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

G29. Permit Availability [OAR 340-200-0020 and 340-218-0120(2)]

The permittee must have available at facility at all times a copy of the Oregon Title V Operating Permit and must provide a copy of the permit to DEQ or an authorized representative upon request.

ALL INQUIRIES SHOULD BE DIRECTED TO:

DEQ – Eastern Region
475 NE Bellevue Dr., Suite 110
Bend, OR 97701
541-388-6146



**OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT
REVIEW REPORT**

Eastern Region
475 NE Bellevue Dr., Suite 110
Bend, OR 97701

Source Information:

SIC	2435, 4961
NAICS	321211, 221330

Public Participation Category	III
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Compliance and Emissions Monitoring Requirements:

Unassigned emissions	
Emission credits	
Compliance schedule	
Source test	12/31/21

COMS	
CEMS	
PEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	3/1
Emission fee report (due date)	2/15
SACC (due date)	3/1, 7/30
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	X
Other reports (GHG)	3/1

Air Programs

NSPS (list subparts)	
NESHAP (list subparts)	QQQQ and JJJJJ
CAM	
Regional Haze (RH)	
Synthetic Minor (SM)	X
Part 68 Risk Management	
CFC	
RACT	

TACT	
Title V	
ACDP (SIP)	
Major HAP source	
Federal major source	
NSR	
PSD	
Acid Rain	
GHG	X

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LIST OF ABBREVIATIONS USED IN THIS REVIEW REPORT

AQMA	Air Quality Management Area	N ₂ O	Nitrous Oxide (greenhouse gas)
ASTM	American Society of Testing and Materials	NA	Not Applicable
BDT	Bone Dry Ton	NESHAP	National Emission Standard for Hazardous Air Pollutants
CEMS	Continuous Emissions Monitoring System	NO _x	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standard
CH ₄	Methane (greenhouse gas)	NSR	New Source Review
CMS	Continuous Monitoring System	O ₂	Oxygen
CO	Carbon Monoxide	OAR	Oregon Administrative Rules
CO _{2e}	Carbon Dioxide Equivalent	ORS	Oregon Revised Statutes
COMS	Continuous Opacity Monitoring System	O&M	Operation and Maintenance
DEQ	Oregon Department of Environmental Quality	Pb	Lead
dscf	dry standard cubic feet	PCD	Pollution Control Device
EF	Emission Factor	PEMS	Predictive Emissions Monitoring System
EPA	United States Environmental Protection Agency	PM	Particulate Matter
EU	emissions unit	PM ₁₀	Particulate Matter less than 10 microns in size
FCAA	Federal Clean Air Act	PM _{2.5}	Particulate Matter less than 2.5 microns in size
GHG	Greenhouse Gas	PSD	Prevention of Significant Deterioration
gr/dscf	grains per dry standard cubic feet	PSEL	Plant Site Emission Limit
HAP	Hazardous Air Pollutant	SO ₂	Sulfur Dioxide
ID	Identification Code	ST	Source Test
I&M	Inspection and Maintenance	VE	Visible Emissions
MB	Material Balance	VMT	Vehicle Miles Traveled
Mlb	1000 Pounds	VOC	Volatile Organic Compound
MM	Million		

INTRODUCTION

1. This is a renewal of Oregon Title V Operating Permit 18-0014-TV-01 for Columbia Forest Products, Inc. (CFP). The current permit was scheduled to expire on November 1, 2016, but remains in effect until the permit renewal is issued because a complete renewal application was submitted on time.
2. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for the draft permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report is used to provide a more thorough explanation of the factual basis for the draft permit conditions.
3. The following revisions have been made to the source since the last permit renewal:

Date	Permit Revision or Notification	Brief Explanation
8/3/2015	Type 1 NC Application No: 28255	(UV-BH) UV coating line baghouse, fan and piping replacement
3/27/2015	Type 2 NC Application No: 27944	Hot Press #3 – Replace a steam heat 24 opening press with a steam heat 30 openings press
2/11/2014	Administrative Amendment 1 Application No: 27569	Changed NESHAP 40 CFR Part 63, Subpart JJJJJ Source Testing Compliance Date
12/20/2013	Administrative Amendment 2 Application No: 27643	Source Test BLR-N when operated more than one week during calendar year.

4. The following changes have been made to the source since the last permit renewal:

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
1	1	No Changes	
2	2	No substantial changes	TV Program Development
3	3	No Changes	
4 - 6	4 - 6	Included kitchen sink rule updates	Rule changes TV Program Development
7	7	No Changes	
8 - 17	8 - 13	Boiler NESHAP requirements	NESHAP Subpart JJJJJ requirements
18 - 28	14 - 24	Included kitchen sink rule updates	Rule changes TV Program Development
29 - 35	25 - 31	No Changes	
36	32	Updated PSELS	TV Program
37	33	Emission fee condition updated	TV Program Development
38	34	No Changes	
39	35	Boiler source testing updated	TV Program
40 - 56	36 - 52	No Changes	
--	53	GHG reporting method updated	TV Program Development
57	54	PM emission factor updated	
58 - 59	55 - 56	No Changes	
60	57	Boiler HAP testing updated	TV Program
61 - 68	58 - 65	No Changes	
69	66	Regulatory addresses updated	
70 - 71	67 - 68	SACC and annual report updated	TV Program Development
72 - 74	69 - 71	No Changes	
G1 - G29	G1 - G29	No Changes	

PERMITTEE IDENTIFICATION

5. Columbia Forest Products, Inc., Klamath Division operates a plywood manufacturing facility located on Highway 97 just south of Klamath Falls, Oregon where Highway 97 crosses the Klamath River.

FACILITY DESCRIPTION

6. The main product of the plant is 4' x 8' x 3/4" thick hardwood faced panels. The hardwood veneer is brought in from other locations, in a pre-dried condition. Most of the core panels consist of plywood manufactured from white fir veneer which is processed from the raw logs in the Columbia Forest Products facility. Some of the core panels to which the hardwood face veneer is glued are brought in from elsewhere and consist of veneer core or composite panels (e.g. medium density fiberboard) manufactured by other companies.

The raw logs are brought in by truck and stored until needed. The raw logs are then debarked in a ring de-barker. After the de-barker, the logs are cut to length by a set of large circular chop saws. These sections of peeler logs, called blocks, are transported by conveyor and automatically sorted into bins. The waste trim pieces of the logs known as lily pads are transported to the lily pad chipper. Front end loaders place the blocks into the vats (steam conditioning chests). The blocks are conditioned with hot water and steam to make them suitable for turning on a lathe to peel off veneer.

After conditioning, the blocks are placed on the in-feed conveyors to the two lathes. At each lathe, the veneer ribbon travels down a conveyor, through a clipping station where defects are clipped out and to an automatic stacker which sorts the veneer pieces by size and moisture content. Veneer pieces are also pulled from the line after the stacker at the green chain. Reject pieces of veneer and trim pieces are carried by conveyor to the veneer chipper. The block cores left over after peeling are conveyed to the sorter. Some are stockpiled to be trucked offsite and sold while others are chipped for fuel.

The stacks of green veneer are transported by forklift to the B plant. The green veneer is dried in one of the two dryers to less than 24% moisture content. Veneer pieces which test out above the moisture specification after exiting the dryers are either re-dried or stored until they meet the required dryness specification. The two dryers are the Keller #1 & #2 (fired by natural gas).

The dried veneer is worked into solid sheets with a minimum of voids by plugging defects or edge gluing smaller pieces with hot melt glue.

The next activity in the plywood manufacturing process is that of spreading the glue on the veneer sheets, orienting the grain direction of the core veneers at right angles to each other, then placing the hardwood face veneers at the top and bottom of each assembly. After gluing, the stack of laid-up panels is initially placed in a cold press, then put into one of three hot presses.

The plywood panels exiting hot presses are moved to the panel saw for trimming. Any voids left after the machine edge puttying operation are filled by hand, then any voids in the faces are filled with putty by hand in the patch line. Some oak faced panels are conditioned to prevent staining.

After the patch line, the panels are run through the sander, then inspected and packaged for shipment. The sander is ventilated by a separate sander dust ventilation system. Some of the panels have a coating applied in a UV coating line.

The byproducts or "residuals" are handled as four separate material streams: Wood chips, hogged fuel (mostly bark), plytrim and sander dust. These residual streams are transported by such means as mechanical conveyor, truck load out bin and pneumatic transfer through cyclones (C1 & C2). Steam for the presses and the vats is provided by north and south boilers.

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

7. The emissions units, devices, activities and pollution control devices at the facility include the following:

Emissions Unit Description	EU ID	Device Description	Device ID	Pollution Control Devices	
				Description	PCD ID
North & South Boilers	BLR-S	Wood/Bark Fired Boilers	1-140-0090	Multi-Clone	1-120-0850
	BLR-N		1-140-0100	None	NA
Veneer Drying	V-N	Keller Dryer #1 (east dryer)	2-000-0060	None	NA
		Keller Dryer #2 (west dryer)	2-000-0170		
Press Vents	PV (P-1) (P-2) (P-3)	Press 1	2-080-0020	None	NA
		Press 2	2-080-0100		
		Press 3	2-080-0160		
Material Handling	Blank BH	Sander Baghouse		Baghouse	
	UV BH	UV Line Sander Baghouse		Baghouse	
	C2-1	Lily Pad Cyclone	1-050-0420	None	NA
	C2-2	Surge Bin Cyclone	1-130-0100		
	C2-6	Composer Cyclone	2-020-0200		
	C2-7	Bark Cyclone	1-060-0060		
	C2-10	Plytrim Cyclone	2-150-0080		
TB	Truck Bin Target Box	1-060-0130			
Natural Gas Combustion	NG1	Space Heater #2	3-210-0250	None	NA
		Space Heater #3	3-210-0250		
		Space Heater #4	3-210-0250		
Facility Wide VOC	FW	VOC Usage	NA	None	NA
Storage Piles	SP	Storage Piles	SP	None	NA
Aggregate Insignificant	AI	Space Heater #1	3-210-0250	None	NA
		Debarker	1-050-0050		
		Dump into Fuel Prep (open blow pipe)	1-060-0120		
		Plytrim Truck Bin	2-150-0030		
		Bucking Saws, Steam Vats, Mechanical Conveyors, Portable Log Chipper			
		UV Coating Line	2-130-0030		
		Rail Loading	1-130-0140		
		Plytrim Bin Cyclone	2-150-0030		
	Sander Dust Cyclone	2-150-0060	Baghouse 19	1-140-0250	

- 7.a. South and North Boiler (BLR-S & BLR-N):
- The South Boiler is a C & E Dutch oven boiler with a rated steam capacity of 35,000 lbs steam/hr. The boiler was installed in 1944. Particulate emissions are controlled by a multiclone installed in 1994.
 - The North Boiler is an E.F. Huffman Dutch oven boiler with a rated steam capacity of 12,500 lbs steam/hr. The boiler was installed in 1939. Particulate emissions are uncontrolled.

7.b. Veneer Drying (D-1 and D-2):

There are two veneer dryers. The primary species of wood dried are White Fir, Pine, Douglas Fir and Poplar. Dryer particulate emissions are uncontrolled.

- Dryer 1 (east dryer) was manufactured by Keller. It is a four deck, three zone jet tube dryer heated by burning natural gas. The maximum throughput is 13,000 ft²/hr on a 3/8” basis. The dryer was installed in 1984.
- Dryer 2 (west dryer) was also manufactured by Keller. It is a four deck, three zone jet tube dryer heated by burning natural gas. The maximum throughput is 9,000 ft²/hr on a 3/8” basis. The dryer was installed in 1989. The dryer was modified in 2005 by adding another zone to increase the capacity to that of Dryer 1.

7.c. Plywood Presses (P-1, P-2 & P-3):

There are three steam heated presses which exhaust directly to the atmosphere:

- The #1 North Press was installed in 1983. The maximum hourly production rate is 20,000 ft²/hr - 3/8” basis.
- The #2 Middle Press was installed before 1978. The maximum hourly production rate was 16,250 ft²/hr - 3/8” basis. This press was modified in 2002 by adding six platens for a total of 30. This change increased the capacity from 16,250 to 20,000 ft²/hr - 3/8” basis. [Notice of Approval #020436 – 11/12/02]
- The #3 South Press was installed before 1978. The maximum hourly production rate is 16,250 ft²/hr - 3/8” basis. This press was modified in 2015 by adding six platens for a total of 30. This change increased the capacity from 16,250 to 20,000 ft²/hr - 3/8” basis. [Notice of Approval #27944 – 3/27/15]

7.d. Material Handling (MH):

Device ID	Device	Material	Construction/Modification Date
Blank BH	Blank and HW Sanders/Blank Baghouse	Sander Dust	2000
UV BH	UV Coating Line Sander Baghouse	Sander Dust	2006
C2-1	Lily Pad Cyclone	Wood Chips	1991
C2-2	Surge Bin Cyclone	Wood Chips	1992
C2-6	Composer Cyclone	Plytrim	1987
C2-7	Bark Cyclone	Bark	1991
C2-10	Plytrim Cyclone	Plytrim	1997
TB	Truck Bin Target Box	Bark	1998

7.e. Facility Wide VOC usage (FW)

Fugitive VOC emissions are primarily from putty and UF and PF resin usage. However, the facility primarily uses PureBond as the resin which is a no-added formaldehyde resin.

7.f. Natural Gas Combustion (NG1)

- Space Heater #2 – 5 MMBtu/hr heat input
- Space Heater #3 – 5 MMBtu/hr heat input
- Space Heater #4 – 3 MMBtu/hr heat input

Note, there is also a Space Heater #1, but because of its size (1.4 MMBtu/hr heat input), it is considered a categorically insignificant activity in accordance with OAR 340-200-0020.

7.g. Storage Piles (SP):

There is one 30' x 100' x 200' hog fuel storage pile.

7.h. Aggregate Insignificant (AI):

Aggregate Insignificant emission sources include bucking saws, de-barker, fuel prep, open blow pipe, plytrim truck bin, mechanical conveyors, rail loading, plytrim bin cyclone, UV coating line, Space Heater #1 (1.4 MMBtu/hr) and sanderdust cyclone. Emissions for aggregate insignificant sources are shown below:

PM	0.83 tons/yr
PM ₁₀	0.30 tons/yr
SO ₂	0.02 tons/yr
NO _x	0.58 tons/yr
CO	0.12 tons/yr
VOC	0.40 tons/yr

8. Categorically insignificant activities include the following:

- Evaporative and tail pipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr
- Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
- Office activities
- Food service activities
- Janitorial activities
- Personal care activities
- Groundskeeping activities including, but not limited to building painting and road and parking lot maintenance
- Instrument calibration
- Maintenance and repair shop
- Automotive repair shops or storage garages
- Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
- Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
- Temporary construction activities
- Warehouse activities
- Accidental fires
- Air vents from air compressors
- Demineralized water tanks
- Pre-treatment of municipal water, including use of deionized water purification systems
- Electrical charging stations
- Fire brigade training
- Instrument air dryers and distribution
- Process raw water filtration systems
- Blueprint making

- 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
- Vacuum sheet stacker vents
- Log ponds
- Fire suppression and training
- Paved roads and paved parking lots within an urban growth boundary
- Hazardous air pollutant emissions of fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils
- Health, safety and emergency response activities
- Emergency generators and pumps used only during loss of primary equipment or utility service due to circumstances beyond the reasonable control of the owner or operator, or to address a power emergency as determined by DEQ
- 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
- Ash piles maintained in a wetted condition and associated handling systems and activities
- Oil/water separators in effluent treatment systems
- Combustion source flame safety purging on startup

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING AND RECORDKEEPING

9. There are no significant changes to the requirements in the current permit, but there are a few adjustments with respect to opacity and grain loadings to the permit as a result of recent rule changes.
- Oregon Administrative Rules (OAR) Chapter 340 (See Attachment 1 for a discussion of the testing and monitoring required to assure compliance with the emission limits and standards.)
 - Division 208 - visible emissions limits (rule 0110(2)(a) and (5)): 40% opacity, 6-minute block average through Dec. 31, 2019 and 20% opacity on and after Jan. 1, 2020 applies to the wood-fired boilers because they were installed prior to 1970.
 - Division 208 - visible emissions limits (rule 0110(2)(a) and (4)): 20% opacity limit, 6-minute block average applies to the dryers, cyclones, press vents, space heaters, baghouse and storage pile.
 - Division 208 - nuisance standards: The fugitive emissions (rule 0210), nuisance (rule 0300), masking emissions (rule 0400), and PM fallout (rule 0450) standards apply to the entire facility.
 - Division 226 –
 - PM emission limits (rule 0210(2)(b)(A)): The 0.10 gr/dscf limit applies to the press vents.
 - PM emission limits (rule 0210(2)(b)(B)): The 0.14 gr/dscf limit applies to the Keller veneer dryers, cyclones, space heaters and baghouse.
 - Division 228 – PM emission limits for fuel burning equipment (rule 0210(2)(a)(B)): Boiler limit (BLR-S) is 0.24 gr/dscf @12% CO₂ through 12/31/2019 and becomes 0.15 gr/dscf on and after January 1, 2020.

- Division 228 – PM emission limits for fuel burning equipment (rule 0210(2)(a)(C)): Boiler limit (BLR-N) is 0.24 gr/dscf @12% CO₂ through 12/31/2019 and becomes 0.20 gr/dscf on and after January 1, 2020, if operated 870 hours or less in a calendar year.
 - Division 234 – veneer and plywood plants (rule 0510(1)(b)(A) and (B)): The 10% daily average and 20% maximum opacity limit applies to the veneer dryers. The highest and best and concealing emissions standards also apply to the veneer dryers.
 - Division 234 – veneer and plywood plants (rule 0510(2)(a)): The 1.0 lb/MSF (3/8” basis) process weight limit applies to the material handling equipment and press vents.
- Federal Requirements
 - **New Source Performance Standards (NSPS - 40 CFR, Part 60):** None of the NSPS apply to this facility. The boilers are the only devices for which an NSPS has been promulgated, but they were manufactured prior to the NSPS applicability date.
 - **National Emission Standards for Hazardous Air Pollutants (NESHAP - 40 CFR, Part 61):** None of the NESHAPs in Part 61 apply to this facility, except Subpart M may apply if asbestos is present at the plant and the permittee does anything to disturb the asbestos.
 - **National Emission Standards for Hazardous Air Pollutants (NESHAP - 40 CFR, Part 63):**

The Wood Building Products (surface coating) NESHAP (40 CFR, Part 63, Subpart QQQQ) that was promulgated on 5/28/03 is applicable to the UV coating line. The permittee submitted an Initial Notification for subpart QQQQ on September 23, 2003, stating that the UV coating line is subject to the standards and that possibly the hardboard plywood process is also subject to the standard, pending a determination by EPA. The coatings used in the UV coating line do not contain HAPs, but the associated cleaning materials contain glycol ethers, which are HAPs, making the process subject to the standard. A list of the applicable requirements, testing and monitoring is provided in Attachments 2 and 3 to this Review Report.

In 2007, CFP demonstrated that the facility is no longer a major source of HAPs, so the NESHAPs for Plywood and Composite Wood Products (40 CFR, Part 63, Subpart DDDD) and Industrial, Commercial and Institutional Boilers and Process Heaters (40 CFR, Part 63, Subpart DDDDD) at major sources are not applicable.

The NESHAP for Industrial, Commercial and Institutional Boilers and Process Heaters at area sources (40 CFR Part 63, Subpart JJJJJ) is applicable to the wood-fired boilers. A list of the applicable requirements, testing and monitoring is provided in Attachments 4 and 5 to this Review Report.
 - **Compliance Assurance Monitoring (CAM - 40 CFR, Part 64 and OAR 340-212-0200 through 340-212-0280):** The CAM rules are not applicable to this facility because there are no emissions units with emissions prior to add-on controls greater than 100 tons per year. The South Boiler has a multiclone for controlling PM emissions, but the potential to emit (PTE) without the multiclone is estimated to be less than 100 tons per year. The same is true for the sander baghouses.
 - **Accidental Release Prevention (40 CFR, Part 68):** The permittee has stated that the accidental release prevention rules are not currently applicable because none of the listed materials are used in processes above the threshold levels. Urea-formaldehyde resins are used in the plywood production process, but, either the formaldehyde (a listed material in Part 68) concentration is below one percent by weight of the mixture or the usage is less than 15,000 lbs/year for mixtures in which the formaldehyde concentration is greater than 1% by weight. Methanol is not a listed material for purposes of the accidental release prevention program.

40 CFR §68.115 Threshold Determination

(a) A threshold quantity of a regulated substance listed in §68.130 is present at a stationary source if the total quantity of the regulated substance contained in a process exceeds the threshold.

(b) For the purposes of determining whether more than a threshold quantity of a regulated substance is present at the stationary source, the following exemptions apply:

(1) *Concentrations of a regulated toxic substance in a mixture.* If a regulated substance is present in a mixture and the concentration of the substance is below one percent by weight of the mixture, the amount of the substance in the mixture need not be considered when determining whether more than a threshold quantity is present at the stationary source. Except for oleum, toluene 2,4-diisocyanate, toluene 2,6-diisocyanate, and toluene diisocyanate (unspecified isomer), if the concentration of the regulated substance in the mixture is one percent or greater by weight, but the owner or operator can demonstrate that the partial pressure of the regulated substance in the mixture (solution) under handling or storage conditions in any portion of the process is less than 10 millimeters of mercury (mm Hg), the amount of the substance in the mixture in that portion of the process need not be considered when determining whether more than a threshold quantity is present at the stationary source. The owner or operator shall document this partial pressure measurement or estimate.

- **Acid Rain (40 CFR, Parts 72, 74 and 75):** The federal acid rain program does not apply to this facility because there are no electric utility units.

- Insignificant Activities

10. As identified earlier in this Review Report, this facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant emissions, as defined in OAR 340-200-0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.1 gr/dscf limit). The Department does not consider it likely that IEUs could exceed an applicable emissions limit or standard because IEUs are generally equipment or activities that do not have any emission controls (e.g., small natural gas fired space heaters) and do not typically have visible emissions. Since there are no controls, no visible emissions, and the emissions are less than one ton per year, the Department does not believe that monitoring, recordkeeping or reporting is necessary for assuring compliance with the standards.

PLANT SITE EMISSION LIMITS

11. Provided below is a summary of the baseline emission rateS, netting basis, and plant site emission limits.

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM	119	119	119	98	97	-1
PM ₁₀	76	76	76	87	87	0
PM _{2.5}	NA	NA	58	66	66	0
CO	90	90	90	104	104	0
NO _x	73	73	73	65	65	0
SO ₂	2.9	2.9	2.9	39	39	0
VOC	104	104	104	143	143	0
GHG (CO ₂ e)	54,916	55,220	54,916	74,000	74,000	0

- 11.a. The baseline emission rates for PM, PM₁₀, PM_{2.5}, CO, NO_x, SO₂ and VOC were determined in previous permitting actions and there are no changes. A baseline emission rate was not calculated for PM_{2.5} in accordance with in OAR 340-222-0048(3). The baseline emissions for GHG was corrected using updated fuel emission factors from 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
 - 11.b. The baseline emission rate for greenhouse gases (GHG) is based on the natural gas and steam production during the consecutive 12-month period of December 2002 through November 2003. [OAR 340-222-0048(1)(b)] The previous baseline emission rate did not include CO₂ emissions from combustion of biomass because EPA had deferment regulations for CO₂ from biomass. The new baseline emission rate includes CO₂ for biomass because of the EPA deferment regulation sun setting. The new baseline emission rate with the CO₂ from biomass is provided in Attachment 6.
 - 11.c. The netting basis is equal to the baseline emission rate because there have not been any reductions required by rule or increases approved in accordance with the Prevention of Significant Deterioration (PSD) regulations.
 - 11.d. The PSELs for PM has been adjusted using emission factors based on the average of all available test data that is representative of the current configuration of the emissions units. The emissions detail and summary of emissions data is provided in Attachment 6.
 - 11.e. The PSELs for SO₂ and GHG are equal to the Generic PSEL levels in accordance with OAR 340-222-0041.
 - 11.f. The PSEL for VOC has not changed.
12. There are no unassigned emissions or emission credits for this facility.

SIGNIFICANT EMISSION RATE

13. The proposed PSELs are not greater than the previous netting basis by more than the significant emission rates as shown below. Therefore, no further analysis is required.

Pollutant	Current Netting Basis	Current PSEL	Requested Increase Over Netting Basis	SER
	(tons/yr)			
PM	119	97	-22	25
PM ₁₀	76	87	11	15
PM _{2.5}	58	66	8	10
CO	90	104	14	100
NO _x	73	65	-8	40
SO ₂	2.9	39	36	40
VOC	104	143	39	40
GHG (CO ₂ e)	54,916	74,000	19,084	75,000

HAZARDOUS AIR POLLUTANTS

14. Based on source test data and recognized emission factors, CFP is not a major source of HAPs. The potential HAP emissions are summarized as follows and the complete emissions detail is provided in Attachment 6.

Pollutant	Potential to Emit (tons/yr)
Formaldehyde	5.74
Methanol	7.51
Other HAPs	6.17
Total HAPS	19.42

TOXIC AND FLAMMABLE SUBSTANCE USAGE

15. Columbia Forest Products reported in the original Title V application that they use the following toxic and flammable substances in the amounts shown:

CAS Number	Chemical Name	Estimated Annual Usage (ranges in lbs/yr)				
		Insignificant	1,001-10,000	10,001-20,000	20,001-50,000	>50,000
50-00-0	Formaldehyde				X	
67-63-0	Isopropyl Alcohol		X			

STRATOSPHERIC OZONE DEPLETING SUBSTANCES

16. Columbia Forest Products does not manufacture, sell or distribute any stratospheric ozone-depleting substances and Columbia Forest Products does not use stratospheric ozone-depleting substances in the manufacturing process. Therefore, Sections 601-608 of the 1990 Clean Air Act, as amended, do not apply to the facility.

GENERAL BACKGROUND INFORMATION

17. This is a renewal of Oregon Title V Operating Permit 18-0014-TV-01 issued to Columbia Forest Products, Inc. on November 22, 2011.
18. Other permits issued or required for this source by the Department include:
- 18.a. National Pollutant Discharge Elimination System Permit (NPDES) 1200-Z; and
- 18.b. NPDES 100016 for the discharge of contact cooling water.
19. The source is located within 100 kilometers of three Class I air quality protection areas: Crater Lake National Park, Mountain Lakes Wilderness Area, and Gearhart Mountain Wilderness Area.

COMPLIANCE HISTORY

20. The source was inspected by the Department on 4/30/12, 1/28/16, and 3/17/2016, and was found to be in compliance with the permit conditions. The source was inspected by the Department on 1/29/14 and the veneer dryer stack was observed over the maximum of 20% opacity.
21. The source was inspected by the Department on 1/29/14 and the veneer dryer stack was observed over the maximum of 20% opacity. As a result of this and past recurring excess emission events for opacity, a Pre-Enforcement Notice PEN-BND-AQ-2014-0015 was issued on February 25, 2014. A civil penalty was assessed for the violation on 4/28/2014.
22. The source was inspected by the Department on 1/27/14 and the facility was determined to be out of compliance due to failure to perform source testing as required in Conditions 60.a and 60.b of the Oregon Title V Operating Permit 18-0014-TV-01. The Department issued a Warning Letter WL-BND-AQ-2014-0011 for failure to perform the required testing and verify emission factors of the boiler, veneer dryers, and press vents in the permit by December 31, 2013. The source tests were performed from September 29th through October 2nd of 2014.

SOURCE TEST RESULTS

23. Source tests have been conducted during the last permit term. A summary of the test results are provided in Attachment 6. When applicable this information is used to update the emission factors used for establishing the Plant Site Emission Limits.

PUBLIC NOTICE

24. This permit will be placed on public notice from **Aug. 16, 2017** to **Sept. 20, 2017**. Comments may be submitted in writing during the comment period. DEQ will hold a public hearing if requested by 10 or more individuals or one person representing a group of 10 or more individuals. After the comment period and hearing, if requested, DEQ will review the comments and modify the permit as may be appropriate. A proposed permit will be sent to EPA for a 45 day review period. DEQ may request and EPA may agree to an expedited review of 5 days if there were no substantive or adverse comments during the comment period.

If EPA does not object in writing, any person may petition the EPA within 60 days after the expiration of EPA's 45-day review period to make such objection. Any such petition must be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided for in OAR 340-218-0210, unless the petitioner demonstrates it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period.

ATTACHMENT 1: TESTING AND MONITORING FOR OAR REQUIREMENTS

Emissions Unit/Devices	Applicable Requirement (Division-Rule)	Pollutant	Emission Limit or Standard	Testing	Monitoring
Entire Facility	208-0210(2)	Not specified, but related to visible emissions (VE) and particulate matter (PM)	Minimize fugitive emissions	Testing is not required for fugitive emissions because, by definition, it is not possible to measure fugitive emissions using standard test methods.	The permittee is required to conduct a visible emissions survey of the plant using the procedures of EPA Method 22 at least once a week (OAR 340-208-0210(b)). The surveys are to be performed at the downwind plant boundaries to determine if fugitive emissions are leaving the plant site. If any visible emissions are observed for more than 5% of the observation period then the permittee must immediately perform corrective action to contain the source of emissions.
	208-0300	Not specified, but related to VE, PM, and odors	Nuisance prohibited	Testing is not required for nuisance standards because it is not possible to measure nuisance conditions using standard test methods and there is no pollutant specific limit.	The permittee is required to maintain a log of any complaints and investigate whether there is any validity to the complaint. The permittee must also provide a summary of the complaints in the annual report.
	208-0400	Not specified, but related to VE and PM	Masking emissions prohibited	This is a requirement that applies to all sources, but there isn't any testing or monitoring required because it is more of a design criteria that must be met when installing or modifying equipment.	
	208-0450	Not specified, but related to PM	PM fallout prohibited		See 208-0300

Emissions Unit/Devices	Applicable Requirement (Division-Rule)	Pollutant	Emission Limit or Standard	Testing	Monitoring
BLR-S and BLR-N (South and North Boilers)	208-0110(2)(a) and (5)	VE	40% opacity, 6-minute block average through Dec 31, 2019 and 20% Opacity on and after Jan 1, 2020.	An EPA Method 9 test is required in conjunction with each PM compliance source test run.	The permittee is required to perform visible emissions observations in accordance with EPA Method 9 (certified observer) at least once each month. Monthly observations are considered sufficient for assuring compliance because the visible emissions have historically been well below the limit, except during startup/shutdown or malfunctions; and, the permittee is required to monitor other boiler parameters on a continuous basis (see below).
	228-0210(2)(a)(B) and (C)	PM	0.24 gr/dscf @ 12% CO ₂ through Dec. 31, 2019. Boiler limit (BLR-S) becomes 0.15 gr/dscf on and after Jan. 1, 2020. Boiler limit (BLR-N) becomes 0.20 gr/dscf on and after Jan 1, 2020, if operated 870 hours or less in a calendar year. These boilers were installed prior to June 1970.	Previous testing has shown that the boilers comply with the emission limits and standards. During this permit term, each boiler is required to be tested once. The test method is changed to EPA Method 5 and 202 to better measure condensable particulate matter.	These boilers are not subject to the Compliance Assurance Monitoring (CAM) rules because the North Boiler does not have an add-on control device and the emissions from the South Boiler prior to the multiclone control device (50% estimated efficiency) are estimated to be less than 100 tons per year at typical operating rates used in establishing the Plant Site Emission Limit, which is a limit on the potential to emit. In addition, there are no other monitoring regulations specifically for the boiler PM emission limit so they are subject to the Title V periodic (gap filling) monitoring requirements. Visible emissions are somewhat related to particulate emissions, so the visible emissions monitoring described above is used as one means of assuring on-going compliance. In addition, boiler residual oxygen operating ranges have been established as a means of monitoring the combustion process to minimize particulate emissions. These ranges were based on measurements during compliance source tests, as well as historical operating data. Except during periods of startup or shutdown, corrective action is required if the boiler residual oxygen is less than or greater than the established operating ranges. For the South Boiler, there are further requirements to periodically inspect the multiclone and make any necessary repairs and monitor the pressure drop, which is an indicator of damage (holes and missing cyclones that would reduce the pressure drop) or plugging (increased pressure drop) that would decrease the effectiveness of the control device. The operator is required to take corrective action if the pressure drop is less than or greater than the established operating range.

Emissions Unit/Devices	Applicable Requirement (Division-Rule)	Pollutant	Emission Limit or Standard	Testing	Monitoring
V-N (veneer dryers)	234-0510(1)(b)(A) and (B)	VE	The 10% daily average opacity and 20% maximum opacity (any time)	An EPA Method 9 test is required in conjunction with each PM compliance source test run.	The permittee is required to perform visible emission observations in accordance with EPA Method 9 (certified observer) at least once each month. Monthly observations are considered sufficient for assuring compliance because the visible emissions have historically been well below the limit, except during startup/shutdown or malfunctions.
	226-0210(2)(b)(B)	PM	The 0.14 gr/dscf limit applies to the new veneer dryers (V-N)	Testing is not required because, as shown in Attachment 6 of this Review Report, past tests have shown a safe margin of compliance.	The veneer dryers are not subject to the Compliance Assurance Monitoring (CAM) rules because there are no add-on control devices. In addition, there are no other monitoring regulations specifically for the veneer dryer PM emission limit so they are subject to the Title V periodic (gap filling) monitoring requirements. Visible emissions, especially the blue haze attributed to veneer dryers, is a good indicator of particulate emissions because the particles are in the size range that cause impaired visibility. Therefore, the visible emission monitoring described above is used as one means of assuring on-going compliance with the PM emission limits. In addition, the permittee has prepared an operation and maintenance (O&M) plan that includes routine inspections and maintenance of the veneer dryers to minimize emissions. The permittee is required to record the results of all inspections and maintenance to ensure that the O&M plan is being followed. There is a documented history of upsets related to excessive dryer temperatures while drying Pine. Although there have not been a significant number of these upsets when drying Pine, if upsets occurs at a higher frequency, it may be necessary to revise or add to the monitoring, a requirement to monitor dryer conditions, such as temperatures in each of the zones, as well as drying times.

Emissions Unit/Devices	Applicable Requirement (Division-Rule)	Pollutant	Emission Limit or Standard	Testing	Monitoring
V-N (veneer dryers)	234-0510(1)(e)	Not specified, but related to VE and PM	highest and best operation and maintenance	There is no testing required for this standard because there is no specific pollutant emission limit.	The visible emissions monitoring and O&M plan described above are used to assure that the veneer dryers are maintained and operated at all times at full efficiency and effectiveness so that emission of air contaminants are kept at the lowest practicable level.
	234-0510(1)(f)	Not specified, but related to VE and PM	Concealing emissions is prohibited	There is no testing required for this standard because there is no specific pollutant emission limit.	This is more of a design parameter that must be met when constructing a new veneer dryer or modifying an existing veneer dryer so it is not something that needs to be monitored on an ongoing basis. However, the O&M plan described above will help to assure that emissions are not being concealed. In addition, the permittee is required to notify the Department prior to making any physical changes to veneer dryers or adding new veneer dryers.
(PV) plywood presses	208-0110(2)(a) and (4)	VE	20% opacity	An EPA Method 9 test is required in conjunction with each PM compliance source test run.	The permittee is required to perform monthly visible emission observations in accordance with EPA Method 9 (certified observer). If there were no exceedances after three consecutive months, the visible emission monitoring frequency may be reduced to quarterly.
	226-0210(2)(b)(A)	PM	0.10 gr/dscf limit applies because of source testing results. All 3 of the presses were installed or modified after June 1970	Testing is not required because, as shown in the Source Testing section of this Review Report, past tests have shown a safe margin of compliance.	Like the veneer dryers, the presses are not subject to the CAM rule and there are no other specific monitoring requirements. Therefore, the Title V periodic monitoring (gap-filling) requirements are applicable. Visible emissions are a good indicator of particulate emissions because the particles emitted from presses are in the size range that cause impaired visibility. Therefore, the visible emission monitoring described above is used for assuring on-going compliance with the PM emission limits. If the measured emissions are greater than the limit, then the permittee must take corrective action and monitor the emissions daily for 5 days following the excess emissions.

Emissions Unit/Devices	Applicable Requirement (Division-Rule)	Pollutant	Emission Limit or Standard	Testing	Monitoring
MH (cyclones, target box, baghouse)	208-0110(2)(a) and (4)	VE	The 20% opacity limit applies to all of the material handling devices.	An EPA Method 9 test is required in conjunction with each PM compliance source test run.	The permittee was required to perform visible emission surveys or tests in accordance with EPA Method 9 (certified observer) at least once a week for six weeks and then monthly thereafter if there were no exceedances. The emissions were below the limit for six weeks, so the monitoring frequency was reduced to monthly and that frequency will be carried forward to the renewed permit.
	226-0210(2)(b)(B)	PM	The 0.14 gr/dscf limit applies to all of the material handling devices.	Testing is not required because past tests on similar devices have shown a safe margin of compliance.	PM emissions from material handling devices are typically well below the limits if the device is well maintained. In most cases, equipment problems would cause increased visible emissions, so the visible emission monitoring described above is used for assuring on-going compliance with the PM emission limits. In addition, the permittee is required to inspect the material handling devices and baghouse(s) at least once a quarter and perform any necessary maintenance or repair.
PV and MH	234-0510(2)(a)	PM	1.0 lb/MSF – 3/8" basis	This limit applies collectively to the presses and material handling equipment at the plywood production facility. It is expressed as a pound/hr limit based on the maximum 8-hour capacity of the plant in accordance with OAR 340-234-0500(3). The previous limit was 52.5 lbs/hr based on the maximum capacity of the presses (52,500 ft ² /hr on a 3/8" basis). The limit is being increased to 56.25 lbs/hr because the capacity of the presses increased to 56,250 ft ² /hr on a 3/8" basis when the #2 press was modified by adding 6 additional platens. The testing and monitoring specified for the individual emissions units (PV and MH) will also be used to assure compliance with this limit.	
NG1 (natural gas fired space heaters)	208-0110(2)(a) and (4); and 226-0210(2)(b)(B)	VE and PM	20% opacity and 0.14 gr/dscf	Testing and monitoring are not required because it is unlikely that the space heaters will have any visible emissions or exceed the PM limit due to the clean burning characteristics of natural gas.	
SP (storage pile)	208-0210(2)	VE	Do not cause a nuisance with airborne emissions	For the most part, visible emissions are not a problem because the material is moist and relatively large in size, so it stays in place. Visible emissions may occur if the pile is disturbed (e.g., adding or removing material) or during high wind conditions. However, unless the fugitive emissions are excessive, the visible emissions limit should not be exceeded. To ensure that the fugitive emissions are not excessive, the permittee is required to inspect the plant boundaries at least once a week for visible emissions leaving the plant using EPA Method 22. If visible emissions are observed for more than 5% of the observation period, then the permittee must either perform corrective action to contain the fugitive emissions or conduct a test to determine if the limit is being exceeded.	

ATTACHMENT 2: SUBPART QQQQ NESHAP REQUIREMENTS

40 CFR Citation	Requirement	Applicability	Comments
63.4680	Purpose	Yes	This section applies, but it does not contain any specific requirement to include in the permit.
63.4681	Who is subject to the standard	Yes	This section applies, but it does not contain any specific requirement to include in the permit. Columbia Forest Products was a major source of HAPs and more than 1,100 gallons of coating are used in the UV coating line. The products are either interior wall paneling, tile board or other interior panels.
63.4682	What parts of the plant are covered	Yes	This section applies, but it does not contain any specific requirement to include in the permit. This is an existing affected source.
63.4683(a)	Compliance dates for new or reconstructed sources	No	This is not applicable because the facility is an existing source and not a new or reconstructed source.
63.4683(b)	Compliance dates for existing sources	Yes	This facility is an existing source, so the compliance date is May 28, 2006.
63.4683(c)	Compliance dates for area sources that become major sources	No	This facility was a major source of HAPs on the compliance date of Subpart QQQQ, but is now a minor source of HAPs.
63.4683(d)	Notifications	Yes	The Initial Notification was submitted on September 23, 2003.
63.4690(a)	Emission limits for new or reconstructed sources	No	This is not applicable because the facility is an existing source and not a new or reconstructed source.
63.4690(b)	Emission limits for existing sources	Yes	Table 2 contains the emission limits for the different subcategories. The applicable subcategories are "Interior wall paneling or tileboard" and "Other interior panels".
63.4690(c)	Emission limits for multiple subcategories	Yes	The products are included in multiple subcategories, so Columbia Forest Products may either determine compliance separately for the different subcategories or comply with the most stringent subcategory standard. Columbia Forest Products may not be able to determine the subcategory for the products because the end user determines how the product is used. Therefore, it is likely that Columbia Forest Products will have to comply with the most stringent standard.

40 CFR Citation	Requirement	Applicability	Comments
63.4691(a)	Compliant Material compliance option	No	The cleaning solvents used in the UV coating line contain HAPs, so using compliant materials to demonstrate compliance is not an option.
63.4691(b)	Emission rate without add-on controls compliance option	Yes	Since the cleaning solvents contain HAPs and there are no add-on controls, this is the only compliance option.
63.4691(c)	Emission rate with add-on controls compliance option	No	There are no add-on controls and it is unlikely that add-on controls will be necessary to comply with the emission limits.
63.4692	Operating limits	No	There are no operating limits when using the emission rate without add-on controls option for determining compliance.
63.4693	Work practice standards	No	There are no work practice standards when using the emission rate without add-on controls option for determining compliance.
63.4700, except (a)(1) and (b)	General requirements for complying with the standard	No	All provisions related to add-on controls are not applicable.
63.4700(a)(1)	General requirements for complying with the standard	Yes	The coating operation must be in compliance at all times when using the emission rate without add-on controls compliance option.
63.4700(b)	General Operation and Maintenance (O&M) requirements	Yes	
63.4701	Part 63 General Provisions	Yes	The applicable general provisions are listed in Attachment 3.
63.4710(a) and (b)	General and initial notification requirements	Yes	The Initial Notification was submitted on September 23, 2003.
63.4710(c), except (8)(i), (8)(iii), and (9)	Notification of compliance status	Yes	Provisions related to the compliant materials and add-on control compliance options are not applicable. The Notification of Compliance Status was due 6/30/07. The initial compliance determination was completed by the facility and submitted on June 20, 2007.

40 CFR Citation	Requirement	Applicability	Comments
63.4720(a), except (5) and (7)	Semi-annual compliance reports	Yes	The first and subsequent reports will be due with the Title V semi-annual compliance certifications in accordance with 63.4720(a)(iv). Compliance reporting requirements that pertain to the compliant materials and add-on control options are not applicable. The first compliance report is due 6/30/07.
46.4730, except (c)(2), (c)(4), and (k)	Records	Yes	Recordkeeping requirements that pertain to add-on controls are not applicable.
63.4731	Record retention and acceptable formats	Yes	
63.4740, 63.4741, 63.4742	Compliance requirements for the compliant material option	No	Compliant materials are not an option for complying with the emission limits because the cleaning solvents contain HAPs.
63.4750, 63.4751, 63.4752	Compliance requirements for the emission rate without add-on control option	Yes	Compliance must be determined using the emission rate without add-on controls option.
63.4760, 63.4761, 63.4763, 63.4764, 63.4765, 63.4766, 63.4767, 63.4768	Compliance requirements for the emission rate with add- on controls option	No	Add-on controls are not used to comply with the emission limits.
63.4780	Delegation of authority	No	This section is not applicable to the permittee. EPA has delegated DEQ the authority to implement and enforce this NESHAP.
63.4781	Definitions	Yes	

ATTACHMENT 3: NESHAP GENERAL PROVISIONS

Applicability of General Provisions to Subpart QQQQ of Part 63 [Table 4 to Subpart QQQQ of Part 63]

Citation	Subject	Applicable to Subpart QQQQ	Explanation
§63.1(a)(1)-(14)	General Applicability	Yes	
§63.1(b)(1)-(3)	Initial Applicability Determination	Yes	Applicability to Subpart QQQQ is also specified in §63.4681.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)-(3)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to Subpart QQQQ.
§63.1(c)(4)-(5)	Extensions and Notifications	Yes	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set	Yes	
§63.2	Definitions	Yes	Additional definitions are specified in §63.4781.
§63.3(a)-(c)	Units and Abbreviations	Yes	
§63.4(a)(1)-(5)	Prohibited Activities	Yes	
§ 63.4(b)-(c)	Circumvention/ Severability	Yes	
§63.5(a)	Construction/ Reconstruction	Yes	
§63.5(b)(1)-(6)	Requirements for Existing, Newly Constructed and Reconstructed Sources	Yes	
§63.5(d)	Application for Approval of Construction/ Reconstruction	Yes	

Citation	Subject	Applicable to Subpart QQQQ	Explanation
§63.5(e)	Approval of Construction/ Reconstruction	Yes	
§63.5(f)	Approval of Construction/ Reconstruction Based on Prior State Review	Yes	
§63.6(a)	Compliance With Standards and Maintenance Requirements – Applicability	Yes	
§63.6(b)(1)-(7)	Compliance Dates for New and Reconstructed Sources	Yes	§63.4683 specifies the compliance dates.
§63.6(c)(1)-(5)	Compliance Dates for Existing Sources	Yes	§63.4683 specifies the compliance dates.
§63.6(e)(1)-(2)	Operation and Maintenance	Yes	
§63.6(e)(3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§63.6(f)(1)	Compliance Except During SSM	Yes	Applies only to sources using an add-on control device to comply with the standard.
§63.6(f)(2)-(3)	Methods for Determining Compliance	Yes	
§63.6(g)(1)-(3)	Use of an Alternative Standard	Yes	
§63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart QQQQ does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)-(16)	Extension of Compliance	Yes	
§63.6(j)	Presidential Compliance Exemption	Yes	
§63.7(a)(1)	Performance Test Requirements - Applicability	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.4764, 63.4765, and 63.4766.

Citation	Subject	Applicable to Subpart QQQQ	Explanation
§63.7(a)(2)	Performance Test Requirements - Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. §63.4760 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)	Performance Tests Required by the Administrator	Yes	
§63.7(b)-(e)	Performance Test Requirements - Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.7(f)	Performance Test Requirements - Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)-(h)	Performance Test Requirements – Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§63.8(a)(1)-(3)	Monitoring Requirements - Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in §63.4768.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart QQQQ does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes	
§63.8(c)(1)-(3)	Continuous Monitoring System (CMS) Operation and Maintenance	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.4768.

Citation	Subject	Applicable to Subpart QQQQ	Explanation
§63.8(c)(4)	CMS	No	§63.4768 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart QQQQ does not have opacity for visible emission standards.
§63.8(c)(6)	CMS Requirements	No	§63.4768 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(7)	CMS Out-of-Control Periods	Yes	
§63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	§63.4720 requires reporting of CMS out-of-control periods.
§63.8(d)-(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)-(5)	Use of an Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)-(5)	Data Reduction	No	§§63.4767 and 63.4768 specify monitoring data reduction.
§63.9(a)-(d)	Notification Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart QQQQ does not have opacity or visible emission standards.
§63.9(g)(1)-(3)	Additional Notifications When Using CMS	No	Subpart QQQQ does require the use of continuous emissions monitoring systems.
§63.9(h)	Notification of Compliance Status	Yes	§63.4710 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes	

Citation	Subject	Applicable to Subpart QQQQ	Explanation
§63.9(j)	Change in Previous Information	Yes	
§63.10(a)	Recordkeeping/ Reporting – Applicability and General Information	Yes	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.4730 and 63.4731.
§63.10(b)(2) (i)-(v)	Recordkeeping Relevant to SSM Periods and CMS	Yes	Requirements for SSM records only apply to add-on control devices used to comply with the standard.
§63.10(b)(2) (vi)-(xi)		Yes	
§63.10(b)(2) (xii)	Records	Yes	
§63.10(b)(2) (xiii)		No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.10(b)(2) (xiv)		Yes	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§63.10(c)(1)-(6)	Additional Recordkeeping Requirements for Sources with CMS	Yes	
§63.10(c)(7)-(8)		No	The same records are required in §63.4720(a) (7).
§63.10(c)(9)-(15)		Yes	
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.4720.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.4720(b).

Citation	Subject	Applicable to Subpart QQQQ	Explanation
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart QQQQ does not require opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes	
§63.10(d)(5)	SSM Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
§63.10(e)(1)-(2)	Additional CMS Reports	No	Subpart QQQQ does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	§63.4720(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart QQQQ does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/ Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart QQQQ does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes	
§63.13	Addresses	Yes	
§63.14	Incorporation by Reference	Yes	Test Methods ANSI/ASME PTC 19.10-1981, Part 10, ASTM D2697-86 (Re-approved 1998), and ASTM D6093-97 (incorporated by reference, see §63.14).
§63.15	Availability of Information/ Confidentiality	Yes	

ATTACHMENT 4: SUBPART JJJJJJ NESHAP REQUIREMENTS

Rule Citation	Description	Applicability
63.11193	Industrial, commercial or institutional boilers at area sources of hazardous air pollutants are subject to the standard.	CFP is an area source of HAP with two wood-fired boilers.
63.11194	Affected sources	The wood-fired boilers are existing affected sources so (b) applies and (a), (c), (d) do not apply. (e) does not apply because CFP is required to have a Title V permit for other reasons.
63.11195	Exemptions	The boilers do not meet the criteria for any of the exemptions.
63.11196(a)(1)	The first biennium tune-up must be completed by 3/21/12.	This is applicable. The first biennium tune-ups for the south and north boilers were performed in November 2011.
63.11196(a)(2)	Compliance date for emissions limits.	This is not applicable because there are no emission limits that apply to the boilers.
63.11196(a)(3)	The energy assessment must be completed by 3/21/14.	This is applicable. The first biennial compliance report including the energy assessment was dated 2/12/14.
63.11196(b), (c), and (d)	Compliance dates for new affected sources or boilers that switch from burning solid waste.	These are not applicable because the boilers are existing affected sources that do not burn solid waste. A small amount of plytrim is burned in the boiler, but the permittee believes the material will meet the legitimacy criteria.
63.11200	Subcategories	The boilers are in the biomass subcategory.
63.11201(a)	Table 1 emissions limit.	There are no emission limits in Table 1 that apply to the boilers.
63.11201(b)	Table 2 work practice requirements.	The requirements for biennium tune-up and a one-time energy assessment apply to the boilers.
63.11201(c)	Table 3 operating limits.	There are no operating limits that apply to the boilers.
63.11201(d)	Standards apply at all times.	This is not applicable because there are no emission limits that apply to the boilers.
63.11205(a)	Good air pollution control practices.	This is applicable.
63.11205(b) and (c)	Fuel analysis, source testing and CEMS provisions.	These are not applicable because there are no emission limits that apply to the boilers.
63.11210(a) and (b)	Initial compliance with emission limits.	These are not applicable because there are no emission limits that apply to the boilers.
63.11210(c)	Initial compliance with work practice requirements.	This is applicable to the boilers.
63.11210(d)	Initial compliance for new affected sources.	This is not applicable because the boilers are existing affected sources.
63.11210(e)	Initial compliance when ceasing to burn solid waste.	This is not applicable because solid waste is not burned in the boilers.
63.11211	Performance tests and operating limits.	This is not applicable because there are no emission limits that apply to the boilers.
63.11212	Stack tests.	This is not applicable because there are no emission limits that apply to the boilers.
63.11213	Fuel analysis.	This is not applicable because there are no emission limits that apply to the boilers.

Rule Citation	Description	Applicability
63.11214(a)	Work practice compliance demonstration for boilers <10 MMBtu/hr heat input.	This is not applicable because the boilers have a heat input capacity >10 MMBtu/hr.
63.11214(b)	Perform tune-up and provide a signed statement in the Notice of Compliance Status due by 3/21/12.	This is applicable. The first biennial compliance report including the first biennium tune-up was dated 2/12/14.
63.11214(c)	Perform energy assessment and provide a signed statement in the Notice of Compliance Status due by 3/21/14.	This is applicable. The first biennial compliance report including the first biennium tune-up was dated 2/12/14.
63.11214(d)	Startup and shutdown provisions.	This is not applicable because there are no emission limits that apply to the boilers.
63.11220	Subsequent performance tests.	This is not applicable because there are no emission limits that apply to the boilers.
63.11221	Compliance monitoring.	This is not applicable because there are no emission limits that apply to the boilers.
63.11222	Continuous compliance with emission limits.	This is not applicable because there are no emission limits that apply to the boilers.
63.11223(a) and (b)	Biennial tune-ups no more than 25 months apart.	These requirements apply to the boilers.
63.11223(c)	Startup and shutdown provisions for coal fired boilers.	This is not applicable because coal is not burned in the boilers.
63.11224	Monitoring, installation, operation and maintenance.	This is not applicable because there are no emission limits or operating limits that apply to the boilers.
63.11225(a)(1)	Notifications 63.7(b), 63.8(e) and (f), 63.9(b) through (e), and 63.9(g) and (h).	63.9(b) and (h) apply, but the other notifications do not apply because CFP is not required to conduct performance testing or continuous monitoring.
63.11225(a)(2)	Initial notification.	The initial notification is due by 9/17/11.
63.11225(a)(3)	Notification of performance test.	This is not applicable because performance testing is not required.
63.11225(a)(4)	Notification of compliance status.	The statements in (i), (ii) and (iv) must be included in the notification of compliance status.
63.11225(a)(5)	Previously conducted emissions data.	This is not applicable because performance testing is not required.
63.11225(b)	Annual compliance certification report due by March 1 of each year.	This is applicable.
63.11225(c)	Records	This is applicable, but (3), (6) and (7) do not apply because CFP is not required to conduct the specified fuel analysis or monitoring.
63.11225(d)	Form and duration of records.	This is applicable.
63.11225(e)	Electronic submittal of performance test and RATA results.	This is not applicable because testing and monitoring is not required.
63.11225(f)	Notification to commence or recommence combustion of solid waste.	This is applicable.
63.11225(g)	Notification to switch fuels.	This is applicable.
63.11226	Affirmative defense.	This is not applicable because there are no emission limits or operating limits that apply to the boilers.
63.11235	Part 63 general provisions.	See applicable general provisions in Attachment 5.
63.11237	Definitions	These are applicable, but do not establish any specific requirements.

ATTACHMENT 5: NESHAP GENERAL PROVISIONS TO SUBPART JJJJJ

Applicability of General Provisions to Subpart JJJJJ of Part 63 [Table 8 of Subpart JJJJJ]

General Provisions Citation	Subject	Does it Apply?
63.1	Applicability	Yes
63.2	Definitions	Yes, additional terms defined in 63.11237
63.3	Units and Abbreviations	Yes
63.4	Prohibited Activities and Circumvention	Yes
63.5	Preconstruction Review and Notification Requirements	No
63.6(a), (b)(1)–(b)(5), (b)(7), (c), (f)(2)–(3), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes
63.6(e)(1)(i)	General duty to minimize emissions	No, <i>see</i> 63.11205 for general duty requirement
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No
63.6(e)(3)	SSM Plan	No
63.6(f)(1)	SSM exemption	No
63.6(h)(1)	SSM exemption	No
63.6(h)(2) to (9)	Determining compliance with opacity emission standards	Yes
63.7(a), (b), (c), (d), (e)(2)–(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes
63.7(e)(1)	Performance testing	No, <i>see</i> 63.11210
63.8(a), (b), (c)(1), (c)(1)(ii), (c)(2) to (c)(9), (d)(1) and (d)(2), (e), (f), and (g)	Monitoring Requirements	Yes
63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No
63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No
63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to an SSM plan, SSM plans are not required
63.9	Notification Requirements	Yes
63.10(a) and (b)(1)	Recordkeeping and Reporting Requirements	Yes
63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	No
63.10(b)(2)(ii)	Recordkeeping of malfunctions	No, <i>see</i> 63.11225 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions
63.10(b)(2)(iii)	Maintenance records	Yes
63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during SSM	No
63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes

General Provisions Citation	Subject	Does it Apply?
63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes
63.10(b)(3)	Recordkeeping requirements for applicability determinations	No
63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes
63.10(c)(10)	Recording nature and cause of malfunctions	No, <i>see</i> 63.11225 for malfunction recordkeeping requirements
63.10(c)(11)	Recording corrective actions	No, <i>see</i> 63.11225 for malfunction recordkeeping requirements
63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes
63.10(c)(15)	Allows use of SSM plan	No
63.10(d)(1) and (2)	General reporting requirements	Yes
63.10(d)(3)	Reporting opacity or visible emission observation results	No
63.10(d)(4)	Progress reports under an extension of compliance	Yes
63.10(d)(5)	SSM reports	No, <i>see</i> 63.11225 for malfunction reporting requirements
63.10(e) and (f)	Additional reporting requirements for CMS	Yes
63.11	Control device requirements	No
63.12	State Authority and Delegation	Yes
63.13–63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes
63.1(a)(5), (a)(7)–(a)(9), (b)(2), (c)(3)–(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)–(4), (c)(9)	Reserved	No

ATTACHMENT 6: EMISSIONS DETAIL SHEETS

Emissions Unit	Operating Parameter		Pollutant	Emission Factor		Reference	Emissions (tons/yr)
BLR-S	175,200,000	lbs steam/yr	PM	0.52	lb/1000 lb steam	Avg. of all valid ST	45.9
			PM10	0.50	lb/1000 lb steam	94% of PM -1994 ST	43.8
			SO2	0.014	lb/1000 lb steam	DEQ factor	1.2
			NOX	0.52	lb/1000 lb steam	Avg. of all valid ST	45.6
			CO	1.13	lb/1000 lb steam	Avg. of all valid ST	99.0
			VOC	0.01	lb/1000 lb steam	DEQ factor	0.9
BLR-N	35,040,000	lbs steam/yr	PM	0.35	lb/1000 lb steam	Avg. of all valid ST	6.1
			PM10	0.30	lb/1000 lb steam	86% of PM - 1994 ST	5.3
			SO2	0.014	lb/1000 lb steam	DEQ factor	0.2
			NOX	0.37	lb/1000 lb steam	Avg. of all valid ST	6.5
			CO	0.08	lb/1000 lb steam	Avg. of all valid ST	1.4
			VOC	0.004	lb/1000 lb steam	DEQ factor	0.1
NG1	56.3	10 ⁶ ft ³ /yr	PM	2.5	lb/10 ⁶ ft ³	DEQ factor	0.1
			PM10	2.5	lb/10 ⁶ ft ³	DEQ factor	0.1
			SO2	1.7	lb/10 ⁶ ft ³	DEQ factor	0.0
			NOX	100	lb/10 ⁶ ft ³	AP-42, Table 1.5-1	2.8
			CO	84.	lb/10 ⁶ ft ³	AP-42, Table 1.5-1	2.4
			VOC	5.5	lb/10 ⁶ ft ³	AP-42, Table 1.5-1	0.2
V-N	162,540	1000 ft ² /yr	PM	0.36	lb/1000 ft ²	Avg. of all valid ST	29.3
			PM10	0.36	lb/1000 ft ²	100% of PM	29.3
			NOX	0.12	lb/1000 ft ²	DEQ factor	9.8
			CO	0.02	lb/1000 ft ²	DEQ factor	1.6
			VOC	0.22	lb/1000 ft ²	DEQ factor	17.9
PV	162,790	1000 ft ² /yr	PM	0.04	lb/1000 ft ²	2000 ST	3.3
			PM10	0.04	lb/1000 ft ²	100% of PM	3.3

Emissions Unit	Operating Parameter		Pollutant	Emission Factor		Reference	Emissions (tons/yr)
C2-1 (Lily Pad cyclone)	33,180	green ton/yr	PM	0.004	lb/ton throughput	Engr. Estimate	0.07
			PM10	0.002	lb/ton throughput	Engr. Estimate	0.03
C2-2 (surge bin cyclone)	4,720	BDT/yr	PM	0.5	lb/BDT	DEQ Factor	1.18
			PM10	0.25	lb/BDT	DEQ Factor	0.59
C2-6 (composer cyclone)	4,800	BDT/yr	PM	0.5	lb/BDT	DEQ Factor	1.20
			PM10	0.25	lb/BDT	DEQ Factor	0.60
C2-7 (bark cyclone)	22,650	green ton/yr	PM	0.2	lb/ton throughput	Engr. Estimate	2.27
			PM10	0.054	lb/ton throughput	Engr. Estimate	0.61
C2-10 (plytrim cyclone)	1,660	BDT/yr	PM	0.5	lb/BDT	DEQ Factor	0.42
			PM10	0.25	lb/BDT	DEQ Factor	0.21
TB (target box)	3,640	BDT/yr	PM	0.1	lb/BDT	DEQ Factor	0.18
			PM10	0.05	lb/BDT	50% of PM	0.09
SP (storage pile)	13,760	BDT/yr	PM	1	lb/BDT	EPA Fire Factor	6.88
			PM10	0.36	lb/BDT	EPA Fire Factor	2.48
Blank Baghouse (sanders)	296,400	panels/yr	PM	0.003	lb/panel	Engr. Estimate	0.44
			PM10	0.003	lb/panel	Engr. Estimate	0.44
UV Baghouse	296,400	panels/yr	PM	0.001	lb/panel	Engr. Estimate	0.15
			PM10	0.001	lb/panel	Engr. Estimate	0.15

PSEL Summary

Emissions Unit	Pollutant Emissions (tons/yr)					
	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
BLR-S	45.9	43.2	1.2	45.6	99.0	0.9
BLR-N	6.1	5.2	0.2	6.5	1.4	0.1
NG1	0.1	0.1	0.0	2.8	2.4	0.2
V-N	29.3	29.3		9.8	1.6	17.9
PV	3.3	3.3				
C2-1	0.07	0.03				
C2-2	1.18	0.59				
C2-6	1.20	0.60				
C2-7	2.27	0.61				
C2-10	0.42	0.21				
TB	0.18	0.09				
SP	6.88	2.48				
Blank BH	0.44	0.44				
UV BH	0.15	0.15				
FW VOC						124
PSEL	97.4	86.9	1.5	64.6	104.4	143.0
NB	119	76	2.9	73	90	104
PSEL - NB	-21.6	10.9	-1.4	-8.4	14.4	39.0
SER	25	15	40	40	100	40

PM_{2.5} PSEL and Netting Basis*

Emissions Unit	PM₁₀ PSEL	PM_{2.5} Fraction	PM_{2.5} PSEL	Reference for PM_{2.5} Fraction
BLR-S	43.17	0.59	26.01	AP-42, Table 1.6-5
BLR-N	5.24	0.84	4.46	AP-42, Table 1.6-5
NG1	0.07	1	0.07	Engineering Assumption
V-N	29.26	1	29.26	Engineering Assumption
PV	3.26	1	3.26	Engineering Assumption
C2-1	0.03	0.56	0.02	AP-42, B-1, 10.5
C2-2	0.59	0.56	0.33	AP-42, B-1, 10.5
C2-6	0.60	0.56	0.33	AP-42, B-1, 10.5
C2-7	0.61	0.56	0.34	AP-42, B-1, 10.5
C2-10	0.21	0.56	0.12	AP-42, B-1, 10.5
TB	0.09	0.56	0.05	AP-42, B-1, 10.5
SP	2.48	0.5	1.24	Engineering Assumption
Blank BH	0.44	1	0.44	Engineering Assumption
UV BH	0.15	1	0.15	Engineering Assumption
PSEL	86.2		66.1	
PM _{2.5} /PM ₁₀ fraction	0.76			
PM ₁₀ netting basis	76			
PM_{2.5} netting basis	58			
PM _{2.5} PSEL - NB	8			
SER	10			

*PM_{2.5} PSEL and netting basis (NB) established in accordance with the procedure specified in the definition of “netting basis” in OAR 340-200-0020.

PSEL Emission Factors Based on Plywood Production:

Grouped Sources	Pollutant	Emissions (tpy) from Tables Above	Plywood Production (MSF/yr)	Emission Factor	
Press Vents, Cyclones, Target Box, Baghouses	PM	9.2	162,790	0.11	lb/MSF
	PM ₁₀	6.0	162,790	0.0735	lb/MSF
	PM _{2.5}	5.04	162,790	0.062	lb/MSF
Storage Piles	PM	6.88	162,790	0.085	lb/MSF
	PM ₁₀	2.48	162,790	0.030	lb/MSF
	PM _{2.5}	1.24	162,790	0.015	lb/MSF

Greenhouse Gas Baseline Emissions - (December 2002 through November 2003):

Emissions Unit	GHG	Production Data (Fuel Usage)	Emission Factor ⁽¹⁾ (kg/MMBtu)	Conv. Factor (metric ton/kg)	Emission (metric tons)	Emission ⁽²⁾ (short tons)	Global Warming Potential	Emissions (CO2e)
Boiler Steam	CO2	358,949 MMBtu/yr	93.8	0.001	33,669.45	37,114.17	1	37,114
	CH4		0.0072		11.49	12.66	25	71
	N2O		0.0036		1.51	1.66	298	424
NG1	CO2	295,589 MMBtu/yr	53.06		15,672.13	17,275.54	1	17,289
	CH4		0.001		0.30	0.33	25	8
	N2O		0.0001		0.03	0.03	298	10
Total CO2e (tons/yr)								54,916

(1) Emission factors are from 40 CFR Part 98, Tables C-1 and C-2

(2) Conversion to short tons (1.10231 short ton/metric ton)

Production Data Calculations:

Wood Boiler Steam:	256,392,398	lbs/yr	Dec.-02 to Nov. 03
	1,400	Btu/lb steam	
	358,949	MMBtu/yr	
Natural Gas:	2,955,890	therms/yr	Dec.-02 to Nov. 03
	100,000	Btu/therm	
	295,589	MMBtu/yr	

Greenhouse Gas – Current Emissions:

Emissions Unit	GHG	Production Data (Fuel Usage)	Emission Factor ⁽¹⁾ (kg/MMBtu)	Conv. Factor (metric ton/kg)	Emission (metric tons)	Emission ⁽²⁾ (short tons)	Global Warming Potential	Emissions (CO2e)
Boilers	CO2	294,336 MMBtu/yr	93.8	0.001	27,609	30433	1	30,433
	CH4		0.0072		2.12	2.34	25	58
	N2O		0.0036		1.06	1.17	298	348
NG1	CO2	57,876 MMBtu/yr	53.06		3,069	3,383	1	3,379
	CH4		0.001		0.06	0.06	25	2
	N2O		0.0001		0.01	0.01	298	2
Total CO2e (tons/yr)								34,222

(1) Emission factors are from 40 CFR Part 98, Tables C-1 and C-2

(2) Conversion to short tons (1.10231 short ton/metric ton)

Production Data Calculations:

Wood Boiler Steam:	210,240,000	lbs/yr	Application #28434
	1,400	Btu/lb steam	
	294,336	MMBtu/yr	
Natural Gas:	56,300,000	Cubic ft/yr	Application #28434
	1,026	Btu/cubic ft	
	57,876	MMBtu/yr	

Summary of Source Test Data:

EU	EF Units	PM	PM ₁₀	NO _x	CO	VOC	HCl	Formaldehyde	Methanol	Acrolein	Acetaldehyde
BLR-S	lb/1000 lb steam	0.52	0.50	0.52	1.13	0.01	0.0050	0.0004			
BLR-N	lb/1000 lb steam	0.31	0.26	0.37	0.08	0.004					
V-N	lb/MSF-3/8"	0.36				1.66		0.063	0.053	0.003	0.033
PV	lb/MSF-3/8"	0.04						0.007	0.029		

- The emission factors are based on the average of all source test data that is representative of the current configuration of the emission units.
- Emission factors are not established for pollutants that the test results were less than the method detection limits.

BLR-S Source Test Data (lb/1000 lb steam):

Test Date	PM	PM ₁₀	NO _x	CO	VOC	HCl	Formaldehyde	Acrolein	Benzene
Aug-94	0.44	0.42	0.45	0.83	0.010				
Apr-00	0.62		0.53	0.77					
Jun-01	0.80								
Oct-02	0.52								
Nov-03	0.64								
Jan-05	0.47		0.58	1.05					
Dec-05	0.50		0.55	0.75					
Nov-06	0.57		0.49	2.17					
Nov-07	0.59		0.53	1.22					
Nov-08	0.56					0.0055	0.0004	<0.0009	<0.0005
Nov-09	0.43								
Nov-10	0.33								
Nov-11	0.44								
Nov-13	0.43								
Oct-14						0.0045			
Average	0.52	0.50^a	0.52	1.13	0.010	0.0050	0.0004		

a. $PM_{10}/PM = 0.95$ based on the 1994 test. This fraction is applied to the average of the PM test data to determine the PM_{10} emission factor

BLR-N Source Test Data (lb/1000 lb steam):

Test Date	PM	PM ₁₀	NO _x	CO	VOC
Aug-94	0.30	0.26	0.43	0.04	0.004
Apr-00	0.34		0.27	0.09	
Jun-01	0.29				
Nov-07	0.32		0.42	0.11	
Nov-11	0.49				
Average	0.35	0.26^a	0.37	0.08	0.004

- a. $PM_{10}/PM = 0.87$ based on the 1994 test. This fraction is applied to the average of the PM test data to determine the PM_{10} emission factor

Veneer Dryer Source Test Data (lb/MSF – 3/8”):

Test Date	Dryer	Species	PM	PM ₁₀	NO _x	CO	VOC	Formaldehyde	Methanol	Phenol	Arcrolein	Acetaldehyde	Propionaldehyde	Benzene	Toluene
Aug-00	#1	White Fir	0.21												
Aug-00	#2	White Fir	0.12												
Sep-01	#2	Pine	0.34				1.89	0.068	0.033						
Mar-06	#2	Pine	0.77				2.31								
Nov-05	#2	White Fir	0.38				0.77								
Mar-09	#1	Pine						0.068	0.031	<0.0053	0.0045	0.0399	<0.0032	<0.0014	<0.0018
Mar-09	#1	White Fir						0.0883	0.1105	<0.0065	<0.0036	0.0623	<0.0035	<0.0015	<0.0017
Oct-14	#1	White Fir						0.062	0.071		0.0019	0.024			
Oct-14	#1	Pine						0.076	0.038		0.0042	0.036			
Oct-14	#2							0.018	0.037		0.00093	0.0036			
Average			0.36				1.66	0.063	0.053		0.0029	0.033			

- Averages based on 2000 and later data. Veneer dryers were wood-fired in 1995 and are natural gas-fired since 2000.
- There is no apparent difference in the results due to species, so the emission factor is the average of all data above detection limit.

Press Vent Source Test Data (lb/MSF-3/8''):

Test Date	Species	PM	Formaldehyde	Methanol	Phenol	Arcrolein	Acetaldehyde	Propionaldehyde
Aug-00		0.04						
Jul-06	Pine/WF Core		<0.002	0.029	<0.009	<0.006	<0.005	<0.006
Jul-06	WF/MDF Core		0.01	0.035	<0.008	<0.006	<0.004	<0.005
Jul-06	MDF Core		<0.003	0.026	<0.008	<0.006	<0.005	<0.005
Mar-09			0.0085	0.025	<0.016	<0.0027	<0.0093	<0.0032
Oct-14			0.0018	<0.0041				
Average		0.04	0.0068	0.029				

- There is no apparent difference in the results due to species, so the emission factor is the average of all data above detection limit.

AP-42 HAP Emission Factors for Pollutants without Actual Test Data:

HAP	Boilers (lb/Mlb steam) ^a	Natural Gas Space Heaters (lb/MMscf) ^b	Steam Vat (lb/MSF- 3/8") ^c	Dust Collector (lb/MSF- 3/8") ^c
1,1,1-Trichloroethane	4.30E-05			
1,2-Dichloroethane	4.10E-05			
1,2-Dichloropropane	4.60E-05			
2,3,7,8-Tetrachlorodibenzo-p-dioxins	1.20E-11			
2,4,6-Trichlorophenol	3.10E-08			
2,4-Dinitrophenol	2.50E-07			
4-Nitrophenol	1.50E-07			
Acetaldehyde	1.20E-03		4.70E-03	
Acetophenone	4.50E-09			
Acrolein	5.60E-03			
Antimony	1.10E-05			
Arsenic	3.10E-05	2.00E-04		
Benzene	5.90E-03	2.10E-03		
Beryllium	1.50E-06	1.20E-05		
bis(2-Ethylhexyl)phthalate	6.60E-08			
Bromomethane	2.10E-05			
Cadmium	5.70E-06	1.10E-03		
Carbon tetrachloride	6.30E-05			
Chlorine	1.10E-03			
Chlorobenzene	4.60E-05			
Chloroform	3.90E-05			
Chloromethane	3.20E-05			
Chromium (total)	2.90E-05	1.40E-03		
Cobalt	9.10E-06	8.40E-05		
Dibenzofurans	2.60E-09			
Dichloromethane	4.10E-04			
Ethylbenzene	4.30E-05			
Formaldehyde		7.50E-02		
Hexane		1.80E+00		
Lead	6.70E-05	5.00E-04		
Manganese	2.20E-03	3.80E-04		
Mercury	4.90E-06	2.60E-04		
Methanol			7.30E-03	2.90E-03
Methyl Ethyl Ketone	7.60E-06			
Methyl Isobutyl Ketone				

HAP	Boilers (lb/Mlb steam) ^a	Natural Gas Space Heaters (lb/MMscf) ^b	Steam Vat (lb/MSF- 3/8") ^c	Dust Collector (lb/MSF- 3/8") ^c
Naphthalene	1.40E-04	6.10E-04		
Nickel	4.60E-05	2.10E-03		
Pentachlorophenol	7.10E-08			
Phenol	7.10E-05			
Phosphorus	3.80E-05			
Polychlorinated biphenyls	1.10E-08			
Total POMs	1.70E-04	6.60E-04		
Propionaldehyde	8.50E-05			
Selenium	3.90E-06	2.40E-05		
Styrene	2.70E-03			
Tetrachloroethylene	5.30E-05			
Toluene	1.30E-03	3.40E-03		
Trichloroethylene	4.20E-05			
Vinyl chloride	2.50E-05			
Xylenes	3.50E-05			
Total HAP	2.17E-02	1.89E+00	1.20E-02	2.90E-03

- a. AP-42, Chapter 1.6, Tables 1.6-3 and 1.6-4 (September 2003)
- b. AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, and 1.4-4 (July 1998)
- c. AP-42, Chapter 10.5, Table 10.5-7 (January 2002)