LANE REGIONAL AIR PROTECTION AGENCY
TITLE V OPERATING PERMIT
REVIEW REPORT

1010 Main Street
Springfield, OR 97477

Source Information:

SIC	2493, 4961
NAICS	321219, 221330

Source Categories (LRAPA Title 37, Table 1)	B – 38: Hardboard Manufacturing; as well as C.3, C.4, C.5, C.6, and C.7

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	X
Emission credits	
Compliance schedule	
Source test [date(s)]	See permit

COMS	
CEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	March 15
Emission fee report (due date)	March 15
SACC (due date)	August 30
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	Immediately
Other reports	GHG

Air Programs

NSPS (list subparts)	A, Dc
NESHAP (list subparts)	A, DDDD, DDDDD
LRAPA Registered Source	GDF
CAM	X
Regional Haze (RH)	
Synthetic Minor (SM)	
Part 68 Risk Management	

Title V	X
ACDP (SIP)	X
Major HAP source	X
Federal major source	X
New Source Review (NSR)	
Prevention of Significant Deterioration (PSD)	
Clean Air Mercury Rule (CAMR)	

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LIST OF ABBREVIATIONS USED IN THIS REVIEW REPORT

ACFM	Actual cubic feet per minute	MSF	Thousand square feet
AQMA	Air Quality Management Area	NA	Not applicable
ASTM	American Society of Testing and Materials	NESHAP	National Emission Standard for Hazardous Air Pollutants
BDT	Bone dry ton	NO_x	Nitrogen oxides
Btu	British thermal unit	NMVOC	Non-methane VOC
CAM	Compliance Assurance Monitoring	NSPS	New Source Performance Standard
CFR	Code of Federal Regulations	NSR	New Source Review
CMS	continuous monitoring system	O_2	Oxygen
CO	Carbon monoxide	OAR	Oregon Administrative Rules
CO_2	Carbon dioxide	ORS	Oregon Revised Statutes
CO_2e	Carbon dioxide equivalent	O&M	Operation and Maintenance
COMS	Continuous opacity monitoring system	Pb	Lead
		PCD	Pollution control device
DEQ	Oregon Department of Environmental Quality	PCWP	Plywood and Composite Wood Products
dscf	Dry standard cubic feet	PM	Particulate matter
EF	Emission factor	PM_{10}	Particulate matter less than 10 microns in size
EPA	United States Environmental Protection Agency	$PM_{2.5}$	Particulate matter less than 2.5 microns in size
EU	Emissions unit		
FCAA	Federal Clean Air Act	PSD	Prevention of Significant Deterioration
gr/dscf	Grains per dry standard cubic feet		
GHG	Greenhouse gas	PSEL	Plant Site Emission Limit
HAP	Hazardous Air Pollutant as defined by LRAPA Title 44	RTO	Regenerative thermal oxidizer
		SACC	Semi Annual Compliance Certification
ID	Identification number		
I&M	Inspection and Maintenance	SD	Sanderdust
LRAPA	Lane Regional Air Protection Agency	SO_2	Sulfur dioxide
		ST	Source test
MACT	Maximum Achievable Control Technology	TSP	Total suspended particulate
		VE	Visible emissions
MB	Material balance	VHAP	Volatile Hazardous Air Pollutant
Mlb	1000 pounds	VMT	Vehicle mile traveled
MM	Million	VOC	Volatile organic compound

INTRODUCTION

1. This is a renewal of Lane Regional Air Protection Agency (LRAPA) Title V Operating Permit No. 200529 that was issued May 23, 2012 and scheduled to expire on May 23, 2017. The existing permit will remain in effect until this renewal is issued.

   1.a. Information relied upon: The permit renewal is based upon the renewal application (61589) received 5/20/16 and an update (65388) received 9/17/19.

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.

PERMITTEE IDENTIFICATION

3. Arauco North America, Inc. – Eugene MDF (Arauco or "the facility") is a Chilean-based forest products company that operates this medium-density fiberboard facility in Eugene, Oregon.

FACILITY DESCRIPTION

4. Medium-density fiberboard is produced by the facility in a sequence of steps that include receipt of raw materials by truck, sorting and cleaning of the raw materials (wood chips), milling of oversize materials (hogging), washing, steaming, refining (mechanical reduction of chips to fiber), addition of binder and drying, and then forming and pressing of the refined fiber into the desired board products. Board materials are trimmed both before and after pressing and then sanded following the press. Raw materials are hardwood or softwood chips, sawdust shavings and 'urban wood' which is hogged pallets and other waste woods from commercial activities in the Willamette Valley. This Title V permit was first issued to Willamette Industries, Inc., Eugene MDF Division, on May 21, 2001. The medium density fiberboard facility was purchased by Weyerhaeuser Company in June 2002, by Flakeboard America Limited in 2006 and by Arauco in 2013.

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

5. The emissions units at this facility are the following:

Emissions Unit	EU ID	Pollution Control Device/Practice	PCD ID
Natural Gas-fired Boiler 2	Boiler-2	None	NA
Natural Gas-fired Boiler 3	Boiler-3	None	NA
Pressurized Refiner/Westec Dryer	Dryer-1	Wet ESP #1 and #2, Baghouse and Biofilter System	WESP #1 and #2 plus P-1/ Baghouse System and P-1 Biofilter

Emissions Unit	EU ID	Pollution Control Device/Practice	PCD ID
Blender-1	BL-1	Baghouse System	BH BL-1 Baghouse System (BL-1East and BL-1West Combined Duct)
Press-1 (loader, press, and unloader)	Press-1	Baghouse System and Biofilter	P-1 Baghouse System and P-1 Biofilter
Materials Handling Group 1: Baghouses and Cyclone installed after 1970 (BH 1, 4, 6, 7, 8, 11-15, and Cyclone 1)	Mat-1	Baghouses and Cyclone	BH-1, BH-4. BH-6, BH-7, BH-8, BH-11-15, and C1
Materials Handling Group 3: Fugitives	Mat-3	None	NA
Materials Handling Group 4: Truck Dump	Mat-4	Enclosure	
Materials Storage Piles	Piles-1	None	NA
Insignificant Emission Unit: Misc. Chemical Usage VOC Resin Tanks VOC Diesel Tank VOC Gasoline Tank VOC WESP Sediment Tanks VOC Steam from Refiner and Pre-Steaming Bin VOC Unpaved Roads $PM/PM_{10}/PM_{2.5}$	IEU	None	NA

5.a. Boiler-2 consists of the natural gas-fired Cleaver Brooks boiler rated at a heat input rate of 51 MMBtu/hr. The boiler is a horizontal-fire boiler constructed and installed in 1987. During the previous permit term, the facility discontinued the option to burn sanderdust in Boiler-2 and removed the associated baghouse (BH-5) as part of a strategy to meet the Major Source Boiler NESHAP.

5.b. Boiler-3 consists of a boiler (previously rented, now owned by the facility) fired on natural gas and rated at a steam production rate of 12,500 pounds per hour, corresponding roughly to a heat input of 14 MMBtu/hr. The boiler firing method is horizontal fire and the boiler was constructed and installed in 1997.

5.c. Press-1 is the board press at the facility. It is a hydraulic press, heated with steam produced by one of the boilers, and has a monthly production rate of 13,300 MSF finish product equivalent (3/4" basis) and a projected production rate of 120,000 MSF gross (3/4" basis) on an annual basis. The press was constructed and installed in 1995. A significant modification on the permit was applied for by the facility in September of 2004, requesting an increase in the production rate from 92 MM SF to the current rates as noted above. The permit production limits were removed as part of the significant modification in September of 2004 (issued February 17, 2005). The facility is still required to perform monitoring to ensure compliance with the PSELs. Willamette Industries, subsequently acquired by Weyerhaeuser, was required to install a VOC control device on the press under the terms of the consent decree agreed upon with EPA to resolve allegations of PSD

violations at other Willamette-owned facilities. The requirements of the Consent Decree, however, were removed in June of 2003 because the EPA and Weyerhaeuser reached an agreement to have the RTO removed as a control device from Press-1. All references to the RTO and the Consent Decree requirements were removed through a Reopen-for-Cause process initiated by LRAPA in July of 2003. As part of the requirements contained in the PCWP MACT (40 CFR Part 63 Subpart DDDD), the facility installed a new biofiltration unit in 2008. Press-1 emissions are controlled by the biofiltration unit (P-1 Biofilter) for HAPs control in addition to, and downstream from, the existing press enclosure and baghouse system (P-1 Baghouse System) for particulate control.

5.d. The P-1 Biofilter has a two-stage bioscrubber followed by the biofiltration unit. Design air flow rate is 70,000 ACFM and operating temperature range 50F to 112F. The biofilter has 24-hour block biofilter bed temperature within the ranges of 65F to 93F as established during the performance test(s). Historically, the facility regularly reported deviations from the established temperature ranges (on the order of approximately 10 temperature excursions per month). This is no longer the case with a refiner/dryer steam separation system now routing vapor to the biofilter. The facility has tested and continues to test during periods of relatively low and high ambient temperatures to establish wider temperature ranges in the biofilter that show compliance with the PCWP MACT-required formaldehyde reduction.

5.e. Dryer-1 is a pneumatic, sanderdust-fired tube-style furnish dryer heated by a Coen multi-fuel burner constructed and installed in 1995. Maximum natural gas consumption is projected to be 250 million cubic feet per year, 170,000 BDT of furnish per year, and 8,750 tons fines per year. The dryer exhausts through two high efficiency cyclones which separate the fiber. The exhaust gas from the cyclones is controlled by a pair of wet ESPs (WESP-1 and WESP-2). In addition, a steam separation system was added during the previous permit term to route refiner/dryer system emissions to the press biofilter for treatment. The resin currently is injected post-dryer as part of the Blender-1 process change in 2008 to reduce overall formaldehyde emissions and comply with PCWP MACT. Thus, the resinated fibers are now processed at much lower temperatures relative to the pre-Blender-1installation and associated changes. During dryer start-ups and shut-downs, the refiner throughput is briefly diverted to a start-up vault. This vault is equipped with a cyclone to drop fiber into the vault. Steam and vapor from the cyclone are directed back to the dryer system for treatment in the WESP system. The vault was tested for capture efficiency in 2017 and meets the criteria for a 100% capture device.

5.f. Blender-1 is a new source that was installed as part of the 2008 changes for PCWP MACT compliance. Dryer-2 was removed as an emission unit from the permit as part of this change; Dryer-2 became low-heat pneumatic fiber transfer system associated with Blender-1. Blender-1 resinates and conditions wood fiber after it has passed through Dryer-1 and prior to mat formation. Blender-1 consists of a resin atomization and injection system with a low-heat conditioning chamber. Heat is provided to the conditioning chamber with an 18 MMBtu/hr (maximum) direct-fire natural gas burner operating normally at 11 MMBtu/hr to maintain a fiber conditioning temperature of approximately 104 degrees F. After fiber separation through a high-efficiency cyclone, Blender-1 air is emitted to the atmosphere through a baghouse system (BH BL-1East and BL-1 West). The resinated and conditioned fiber is pneumatically transferred to the existing fiber bin prior to mat forming. The air from this transfer is emitted to the atmosphere via an existing baghouse (BH-11) prior to the fiber bin. The maximum design capacity of Blender-1 is 58,600 lb/hr of resinated/conditioned wood fiber. Under the PCWP MACT, Blender-1 is not an applicable emission unit and is exempt from the PCWP MACT requirements.

5.g. Dryer-2 (Removed) was the second stage of the tube dryer constructed and installed in 1995. It is now a low-heat fiber transport system. As noted above, it was removed as an emission unit from the permit as part of the PCWP MACT permit modification in 2008. What was Dryer-2 is still indirectly heated with steam from the boilers to maintain temperature for fiber transport and now all material and airflow goes to the Blender (Blender-1).

5.h. Mat-1 is the emissions unit that includes the cyclone and all baghouses at the facility that were installed after 1970 (Baghouses 1, 4, 6, 7, 8, 11-15, and Cyclone 1). These devices are subject to a different grain-loading standard than those installed before 1970.

5.i. Mat-2 (Removed from the permit in 2012) was the emission unit for the 1 baghouse installed before 1970 (Baghouse 4). BH-4 is now part of Mat-1 and Mat-2 emission unit has been removed from the permit.

5.j. Mat-3 is materials handling fugitive emissions.

5.k. Mat-4 is the materials receiving truck dump area.

5.l. Piles-1 is the emission unit that includes all raw material storage piles.

5.m. IEU is the emission unit for insignificant emission units including Aggregate and Categorically Insignificant Activities. For this facility, these include VOC emission sources (e.g., miscellaneous chemical usage, resin tanks, the diesel tank, the gasoline tank, the wet ESP sludge tanks, and the presteaming vent), and PM from unpaved roads. The chip washer settling tank was removed from the IEU since it is no longer used, and the high-pressure cyclone was removed from the pre-steaming bin activity (it was identified as including a high pressure cyclone in the original 2000 Title V application but was never onsite). As specified by the PCWP MACT, the facility is required to us only non-HAP coatings for all group-1 miscellaneous coating operations as defined in 63.2292. The facility is also required to keep records showing that only non-HAP coatings are used. The following are the estimated actual and/or maximum emissions for the EU-AI devices/activities:

AI Device/Activity	Pollutant	Amount (tons/year)
Unpaved Roads	PM	0.92
	PM_{10}	0.28
	$PM_{2.5}$	0.03
Resin Storage Tanks	VOC	0.20
Misc. Product-Related Chem Usage	VOC	0.22
Diesel Tank	VOC	0.00
Gasoline Tank	VOC	0.01
WESP Sediment Tanks	VOC	0.032
Pre-steaming bin	VOC	0.115
TOTAL VOC	VOC	0.59

6. The current permit was issued on May 23, 2012. The following changes have been made at the facility during the last permit term and/or were not mentioned in the current review report:

Date	Permit Revision or Notification	Brief Explanation
09/30/13	Off-Permit Notification and Approval to Construct NC-200529-A13	Approval to construct and Off-Permit Notification to replace the top 5 feet of the WESP #1 discharge stack with larger diameter piping.
10/15/13	Off-Permit Notification and Approval to Construct NC-200529-B13	Approval to construct and Off-Permit Notification to replace the shave-off fan for the former with a fan of higher air flow (from 8700 CFM to 11,000 CFM).
12/02/13	Off-Permit Notification and Approval to Construct NC-200529-C13	Approval to construct and Off-Permit Notification to refurbish WESP#1.
06/11/14	Off-Permit Notification and Approval to Construct NC-200529-A14	Approval to construct and Off-Permit Notification to replace a section of the refiner blow line with a steam separation elbow to study the effects of steam removal on dryer HAP emissions.
12/04/14	Approval to Construct NC-200529-B14	Approval to construct to enable refiner steam capture, reduction, and vapor treatment of the refiner/dryer system (EU-Dryer-1) through the Press-1 Biofilter to reduce formaldehyde emissions.
07/20/15	Approval to Construct NC-200529-A15	Approval to construct for the project to discontinue the option to burn sanderdust and remove the sanderdust baghouse (BH-5) from Boiler-2.
11/10/15	Addendum 1 - Minor Modification	Permit modification to incorporate NC-200529-B14 construction and to remove sanderdust as a fuel option for Boiler-2 approved by NC-200529-A15. These changes were made to reflect the facility's strategy to meet the PCWP MACT and SFO 14-3514 requirements as well as the Major Source Boiler MACT requirements, respectively.
11/01/16	Off-Permit Notification and Approval to Construct NC-200529-A16	Approval to construct for the project to refurbish WESP #2.
11/14/16	Off-Permit Notification and Approval to Construct NC-200529-B16	Approval to construct and Off-Permit Notification to modify the refiner startup vault and vapor recovery system.
11/05/18	Off-Permit Notification and Approval to Construct NC-200529-A18	Approval to construct and Off-Permit Notification for the replacement of the burner for Boiler-2.
04/19/19	Addendum No. 2 - Administrative Amendment	Name change from Flakeboard America Limited – Eugene MDF to Arauco North America, Inc. – Eugene MDF

7. The following is a list of condition-by-condition changes between the previous permit and the proposed permit:

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
Most	Most	Updated and corrected rule references and change "shall" to "must"	LRAPA rule changes, typos, etc.
Cover page	Cover page	Updated "Information Relied Upon"	New application for renewal
1	1	No change	NA
2	2	Updated condition numbers that are LRAPA only and/or DEQ only enforceable	Rules and conditions have changed
3	3	Removed sanderdust as a fuel for Boiler-2 and removed baghouse from control device column; Added "baghouse and biofilter system" and codes to control device columns	Addendum No. 1, Minor Modification: changes to reflect facility's strategy to meet the Boiler and PCWP NESHAPs
4	4	Added list of reasonable precautions	Match rule
5	5	No change	NA
6	6	Added language identical to 250 micron fallout rule	To match LRAPA rule language
7	7	No change	NA
8	8	No change	NA
9	9	Removed sanderdust as a fuel for Boiler-2	Addendum No. 1, Minor Modification
10	10	No change	NA
11	11	No change	NA
12	12	Updated annual PSELs and revised unassigned emissions	Revised based on new potential to emit after updating emission factors based on the average of representative test data
13.a	13.a	Removed sanderdust as a fuel in recordkeeping requirement for Boiler-2; Combined both boilers (Boiler -2 and Boiler-3) into one row in Table 4 for recordkeeping of natural gas	Addendum No. 1, Minor Modification; Simplicity and to streamline; updated emission factors based on the average of representative test data
13.b	13.b	Added phrase "except GHGs" to Condition 13.b;	PSEL compliance for GHGs can be assured by way of annual GHG reporting;

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
13.c	13.c	Updated emission factors; removed Boiler-2 rows pertaining to firing of sanderdust; clarified test methods for Press-1	Emission factors revised based on the average of representative test data; facility discontinued sanderdust firing as part of the strategy to meet Boiler MACT; preferred test methods have changed
14	14	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
15	15	Changed grain loading standard from 0.1 to 0.10 gr/dscf	Rule change
--	16	Deleted CAM requirement for BH-5	Addendum No. 1, Minor Modification: BH-5 was the control device for Boiler-2 when firing on sanderdust. The facility discontinued firing sanderdust
16	17	No Change	NA
17	18	Include specific applicable requirements from the Major Source Boiler NESHAP	Clarity. Boiler NESHAP was under a "stay" at the time of the previous renewal in 2012 and the previous permit included the Boiler NESHAP by reference without detail.
18	19	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
19	20	Changed grain loading standard from 0.1 to 0.10 gr/dscf	Rule change
20	21	Changed reference to Boiler NESHAP from "as promulgated" to "as specified in Condition 17"	Clarity and consistent with permit
21	22	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
22	23	Added P-1/Baghouse System and P-1 Biofilter to the controls required to be operated and maintained for Dryer-1	Clarity and facility request
23	24	Changed grain loading standard from 0.1 to 0.10 gr/dscf	Rule change

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
24	25	Added "Table 2 Row 3 (biofilter) to list of PCWP MACT references; revised WESP blow-down rate; removed Dryer-1 burner blend air urea solids addition rate as an operating parameter and replaced with steam diversion valve setting	Addendum No. 1, Minor Mod.
25	26	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
26	27	Changed grain loading standard from 0.1 to 0.10 gr/dscf	Rule change
27	28	Changed baghouse PD minimum from 0.0 to 0.1	LRAPA requested the facility look into and present minimum pressure drops (PDs) that are something other than zero (0) inches of water
28	29	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
29	30	Changed grain loading standard from 0.1 to 0.10 gr/dscf	Rule change
30	31	Changed baghouse PD minimum from 0.0 to 0.1	LRAPA requested the facility look into and present minimum pressure drops that are something other than zero (0) inches of water
31	32	Added the refiner/dryer (Dryer-1) to the PCWP applicable requirement; changed upper temp limit from 84 to 93 degrees F	Addendum No. 1, Minor Mod.
32	33	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
33	34	Changed grain loading standard from 0.1 to 0.10 gr/dscf	Rule change
34	35	Added BH-4 and BH-11 pressure drops to CAM monitoring; adjusted several lower parametric action ranges for baghouse pressure drops from 0.0 to 0.1	Facility request and to match changes to emission unit as described above; LRAPA requested the facility look into and present minimum pressure drops that are something other than zero (0) inches of water

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
35	36	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
36	37	No change	NA
37	38	Removed the phrase "excluding uncombined water"	Match template and rule. Phrase no longer included in the LRAPA Title 32 opacity standard – now only included in the definition of "opacity" in LRAPA Title 12
38	39	Revised condition to include a specific numeric limit for the "Hardboard rule" in Title 33	Clarification, more specific, facility request.
39	40	Changed grain loading standard from 0.1 to 0.10 gr/dscf; added GDF requirements for Registered gasoline storage tank and dispensing activity	Rule change; LRAPA's GDF rules and EPA's 40 CFR Part 63 Subpart CCCCCC apply.
40	41	No change	NA
41	42	No change	NA
42	43	Removed BH-5 for Boiler-2 when firing on sanderdust as a visible emission monitoring requirement	Addendum No. 1, Minor Mod.
43	--	Added condition regarding the prohibition of knowingly rendering inaccurate any required monitoring device or method	Applicable requirement
44	--	Added condition regarding the method to determine actual emissions for fee purposes as it relates to compliance	Applicable requirement
45	--	Added a condition that clarifies the monitoring requirements commence on the date of permit issuance unless otherwise specified	Applicable requirement
46	44	Removed option to test at "90 to 110% of the normal maximum operating rate for existing equipment"	DEQ Source Sampling Manual update
47	45	No change	NA
48	46	No change	NA
49	--	Added a condition that clarifies the recordkeeping requirements commence on the date of permit issuance unless otherwise specified	Applicable requirement
50	47	Added "unless otherwise specified" to the retention of record requirement	Clarification

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
51	48	Updated excess emissions reporting condition	Changes to reflect Title V template and rule updates
52	49	No change	NA
53	50	No change	NA
54	51	No change	NA
55	52	No change	NA
56	53	Updated EPA mailing address	EPA address was changed
57	54	No change	NA
58	55	No change	NA
59	56	No change	NA
--	57	Deleted condition pertaining to the "other reporting requirements include" source test plans and emission factor verification summaries	Source test plans and emission factor verification summaries are not "reports" and their associated submittal requirements are covered in other sections of the permit
60	58	No change	NA
61	--	Added a condition and table to clarify which Federal air quality requirements that could be reasonably anticipated to apply to the facility are not applicable	Rule specified in division 218
General Conditions G1. - G 29.	General Conditions G1. - G28.	Updated	Rules changed and formatting updates

8. Categorically insignificant activities include the following:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under OAR Chapter 340, Divisions 20 through 32, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's *Annual Report on Carcinogens* when usage of the chemical mixture is less than 100,000 pounds/year;
- Evaporative and tail pipe emissions from on-site motor vehicle operation;
- Distillate oil, kerosene, gasoline, natural gas or propane burning equipment, provided the aggregate expected actual emissions of the equipment identified as categorically insignificant do not exceed the de minimis level for any regulated pollutant, based on the expected maximum annual operation of the equipment. If a source's expected emissions from all such equipment exceed the de minimis levels, then the source may identify a subgroup of such equipment as categorically insignificant with the remainder not categorically insignificant including:
  - Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr;
  - Distillate oil, kerosene or gasoline burning equipment with a rating greater than 0.4 million Btu/hour;
- Office activities;
- Janitorial activities;

- Personal care activities;
- Grounds-keeping 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;
- Air purification systems;
- Electrical charging stations;
- Fire brigade training;
- Instrument air dryers and distribution;
- Process raw water filtration systems;
- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking;
- Electric motors;
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids;
- On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles;
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment
- Pressurized tanks containing gaseous compounds;
- Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities;
- Storm water settling basins;
- Fire suppression and training;
- Paved roads and paved parking lots within an 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, provided that the aggregate horsepower rating of all stationary emergency generator and pump engines is not more than 3,000 horsepower. If the aggregate horsepower rating of all stationary emergency generator and pump engines is more than 3,000 horsepower, then no emergency generators and pumps at the source may be considered categorically insignificant;
- Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems;
- Non-contact steam condensate flash tanks;

- Non-contact steam vents on condensate receivers, deaerators and similar equipment;
- Boiler blowdown tanks;
- Oil/water separators in effluent treatment systems; and
- Combustion source flame safety purging on startup.

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

9. The following sections describe each applicable requirement in the permit, with the intent of the condition and a brief discussion of any unique features of the requirement.

9.a. Conditions 1 and 2 are general statements required in and common to all Title V permits issued by LRAPA.

9.b. Condition 3 provides a list of equipment and identification of pollution control devices for the base operating scenario (Scenario I).

9.c. Condition 4 is a facility-wide fugitive dust control requirement that allows the permittee to deal with potential fugitive dust problems before they become standard violations.

9.d. Condition 5 is a facility-wide nuisance resolution condition that establishes timely response to any complaints that the facility operation may generate.

9.e. Condition 6 implements the long-standing particulate matter fallout provision in LRAPA rules. The monitoring and recordkeeping refers back to the periodic visible emission surveys required in Condition 5.

9.f. Condition 7 implements the long-standing LRAPA prohibition of concealment or masking of emissions to avoid otherwise applicable requirements.

9.g. Condition 8 implements emergency actions required of the facility in the event that air quality becomes so unhealthy that facility curtailments are necessary.

9.h. Condition 9 limits the boilers to fire only natural gas.

9.i. Condition 10 is a standard requirement for Title V facilities stating the permittee's responsibility for the 40 CFR 68 accidental release provisions should the facility trigger these requirements.

9.j. Condition 11 establishes a requirement for the facility to follow an inspection and maintenance plan to ensure that the facility operates equipment in a manner consistent with minimal degradation of air quality. All control devices, conveyance systems, and other air contaminant emitting equipment are required to be entered into this plan to implement a program of routine inspection and periodic maintenance.

9.k. Condition 12 list the annual Plant Site Emission Limits (PSELs) and Unassigned Emissions for the facility.

9.o. Condition 13.a describes required monitoring to track production values to determine facility emissions for PSEL compliance.

9.p. Condition 13.b is the equation used to estimate emissions for PSELs using the production data monitored in Condition 15.a and the emission factors in Condition 15.c.

9.q. Condition 13.c is a table of emission factors for use in calculating facility emissions. The factors are to be used in determining PSELs for all operating scenarios. Requirements for emission factor verification testing are also identified.

9.r. Condition 14 is the opacity limit for the oldest boiler at the facility. NSPS does not apply to this boiler because it was installed prior to June 9, 1989 (the trigger date in 40 CFR 60.40c).

9.s. Condition 15 is the particulate matter grain loading limit for Boiler-2.

9.t. Condition 16 contains the Boiler-2 recordkeeping requirements.

9.u. Condition 17 contains the boiler NESHAP requirements (40 CFR 63 Subpart DDDDD).

9.v. Condition 18 is the opacity limit for Boiler-3. This boiler, which was a rental unit and then was purchased by the permittee, is subject to NSPS, Subpart Dc. The facility meets the Dc requirements by limiting combustion to only natural gas fuels.

9.w. Condition 19 is the grain-loading limit for Boiler 3. Satisfaction of the particulate matter concentration limit is ensured by the requirement that the boiler fire natural gas exclusively.

9.x. Condition 20 contains the requirement for the boiler to comply with the Boiler NESHAP.

9.y. Conditions 21 through 22 are the specific requirements for the furnish dryer at the facility. Condition 21 is the opacity limit. Condition 22 establishes CAM parameters to be observed periodically to determine the operating condition of the dryer and control systems and requires corrective action if parameter ranges are exceeded.

9.z. Condition 23 is the grain loading limit for the dryer (Dryer-1). Particulate matter emissions in the exhaust from the wet ESPs controlling emissions from the dryer are required to be tested once during the permit term.

9.aa. Condition 24 is the facility-specific requirements pertaining to the PCWP MACT for Dryer-1.

9.bb. Conditions 25 and 26 are the opacity and grain loading limits, respectively, for Blender-1. Condition 27 establishes CAM parameter ranges (baghouse pressure drop) that may then be used to determine on-going compliance with particulate matter standards.

9.cc. Conditions 28 and 29 are the opacity and grain loading limits, respectively, for Press-1. Condition 30 establishes CAM parameter ranges (baghouse pressure drop) that may then be used to determine on-going compliance with particulate matter standards.

9.dd. Condition 31 contains the facility-specific requirements pertaining to the PCWP MACT for Press-1.

9.ee. Conditions 32 and 33 are the opacity and grain loading requirements for Mat-1 baghouses and the cyclone used for material handling at the facility.

9.ff. Condition 34 is the CAM requirements for Mat-1 baghouses.

9.gg. Condition 35 establishes the 20 percent opacity requirement for the fugitive emissions from Mat-3.

9.hh. Conditions 36 and 37 are the applicable requirements for the raw material receiving truck dump. The facility has had an approved alternate control plan for exposed storage piles (not enclosed) but the plan is dated and should be updated to reflect to reflect current conditions at the facility.

9.ii. Condition 38 is the applicable requirement for all equipment at the facility that is subject to the hardboard rule particulate matter/process rate emission limit in Title 33.

9.jj. Conditions 39 and 40 are applicable requirements for insignificant activities.

9.kk. Condition 41 is the PCWP MACT miscellaneous coating operations requirement (part of EU-AI). The requirement is included with the aggregate insignificant activities requirements because the "miscellaneous chemical usage" is an activity for which the requirements apply.

9.ll. Condition 42 includes the frequency and locations for visible emissions observations required in various conditions of the permit.

9.mm. Condition 43 is the requirement related to the prohibition of knowingly rendering inaccurate any required monitoring device or method.

9.nn. Condition 44 is the requirement that methods used to determine actual emissions for fee purposes must also be used for compliance determination.

9.oo. Condition 45 is the requirement that clarifies all monitoring commences on the date of permit issuance.

9.pp. Conditions 46 and 47 include general requirements for stack sampling at the facility.

9.qq. Conditions 48, 49, and 50 are general record-keeping requirements for the facility.

9.rr. Conditions 51 through 60 are the general facility reporting requirements.

9.ss. Condition 61 is a list of all federal requirements that could be reasonably anticipated to apply to the facility, but do not apply.

9.tt. General Conditions G1 through G29 are general requirements applicable to Title V sources.

EMISSION LIMITS FOR 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 LRAPA Title 12 and/or OAR 340-200-0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.10 gr/dscf limit). LRAPA 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 (1) ton per year, LRAPA does not believe that monitoring, recordkeeping, or reporting is necessary for assuring compliance with the standards. The facility is also limited to using "non-HAP coatings" to comply with the PCWP MACT, and the gasoline dispensing facility (GDF) work practices and equipment specifications for the applicable activity in EU-IEU.

PLANT SITE EMISSION LIMITS

11. Provided below is a summary of the baseline emissions rate, netting basis, plant site emission limit, and emissions capacity.

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)			PTE (tons/yr)
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase over netting basis (tons/yr)	
PM	212	84	84	48	35	-49	35
PM_{10}	165	72	72	48	34	-38	34
$PM_{2.5}$	NA	62	62	44	30	-32	30
CO	559	343	343	206	126	-217	126
NO_x	169	169	169	122	139	-30	139
SO_2	2.7	2.7	2.7	39	39	36.3	1.0
VOC	338.8	228	228	188	80	-148	80
GHG	37,810	22,272	37,810	74,000	74,000	51,728	58,657

11.a. The baseline emission rates for PM, PM_{10}, CO, NO_X, SO_2, VOC were determined in previous permitting actions and there are no changes. A baseline emission rate is not required for $PM_{2.5}$ in accordance with the definition of "baseline emission rate" in LRAPA Title 12. The PSEL for lead (Pb) was removed in accordance with the PSEL rules in LRAPA Title 42 since the potential to emit is less than the de minimis level.

11.b. The baseline emission rates for greenhouse gases (GHGs) is based on the natural gas usage during the consecutive 12-month period from February 2005 to January 2006. The baseline and netting

basis now includes GHG emissions from the combustion of biomass since EPA deferred regulation of CO2 from biomass ended in 2014.

11.c. The netting basis for each pollutant were revised in the previous renewal (2012) and are unchanged with this renewal (2019).

11.d. The "Previous PSEL" values are from Addendum No. 1 – Minor Modification Addendum issued November 10, 2015. The facility requested operational and equipment changes to reflect the facility's strategy to meet the 40 CFR Subpart DDDDD (Major Source Boiler MACT), including removing the option to burn sanderdust fuel in Boiler-2. The changes resulted in PSEL reductions for several pollutants.

11.e. The PSEL for SO_2 and GHG are established at the generic PSEL level in accordance with Section 42-0041(1) of the LRAPA PSEL rules.

11.f. GHG and $PM_{2.5}$ are pollutants that are were established with the previous permit renewal. The PSEL for $PM_{2.5}$ was previously established using the procedure specified in the definition of "netting basis" in LRAPA Title 12 (see detail sheets).

UNASSIGNED EMISSIONS AND EMISSION REDUCTION CREDITS

12. The facility has Unassigned Emissions as shown below. Unassigned emissions are established with this renewal and will be reduced to no more than a significant emission rate (SER) at the following renewal in accordance with LRAPA's Title 42 (Section 42-0055). The facility has zero (0) emission reduction credits.

Pollutant	PSEL (tons/yr)	Unassigned Emissions (tons/yr)
PM	35	49
PM_{10}	34	38
$PM_{2.5}$	30	32
CO	126	217
NO_x	139	30
SO_2	39	0
VOC	80	148
GHG	74,000	0

SIGNIFICANT EMISSION RATE

13. The proposed PSEL is not greater than the previous netting baseline as shown below:

Pollutant	SER (tons/yr)	Requested Increase Over Previous Netting Baseline	Increase Due To Utilizing Capacity That Existed In The Baseline Period	Increase Due To Physical Changes Or Changes In The Method Of Operation
PM	25	0	0	0
PM_{10}	15	0	0	0
$PM_{2.5}$	10	0	0	0
CO	100	0	0	0
NO_x	40	0	0	0
SO_2	40	0	0	0
VOC	40	0	0	0
GHG	75,000	0	0	0
Pb	0.6	0	0	0

14. There have been no physical modifications at the facility that would have required New Source Review or have met the LRAPA definition of a major modification since the baseline period.

HAZARDOUS AIR POLLUTANTS/TOXIC AIR CONTAMINANTS

15. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This source has not been notified by LRAPA and is therefore, not yet required to perform a risk assessment or report annual emissions of toxic air contaminants.

    LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in rule. All 187 hazardous air pollutants are on the list of approximately 600 toxic air contaminants. The hazardous air pollutants and toxic air contaminants listed below were reported by the source in 2016 and verified by LRAPA. After the source is notified by LRAPA, they must update their inventory and perform a risk assessment to see if they must reduce risk from their toxic air contaminant emissions. Until then, sources will be required to report toxic air contaminant emissions triennially.

16. This facility is a major source of HAPs. The following is the potential to emit (tons per year) of the facility for hazardous air pollutants listed in Section 112(b) of the 1990 Clean Air Act Amendments (CAAA). The potential to emit hazardous air pollutants is greater than the major source thresholds of ten (10) tons per year for any single HAP and 25 tons per year for total HAPs. The emission totals below reflect the most current information available including the reductions in formaldehyde and methanol from the implementation of the PCWP MACT. As part of the PCWP MACT the facility estimates total HAPs were reduced by 63.9 tons/year (from reductions of 38.2 tons/year formaldehyde and 25.7 tons/year methanol).

Pollutant	Potential To Emit (tons/year)
1,1,1-Trichloroethane (methyl chloroform)	0.00222
Acetaldehyde	0.54785
Acrolein	0.34413
Arsenic Compounds	0.00016
Benzene	0.30617
Beryllium Compounds	0.000011
Biphenyl	0.0001
Cadmium Compounds	0.00003
Chromium Compounds	0.01835
Diisocianate Compounds	0.01692
Ethyl Benzene	0.00766
Ethylene Glycol	0.013
Formaldehyde	17.7
Glycol Ethers	0.0043
Hexane	0.001
Hydrochloric Acid	0.14210
Hexachlorobenzene	0.0000005
Lead	0.00039
Manganese Compounds	1.96370
Mercury Compounds	0.00004
Methanol	107.2
Methylene Chloride	0.012
Methyl Isobutyl Ketone	0.961
Naphthalene	0.06757
Nickel Compounds	0.0112
Phenol	2.14218
Polycyclic Organic Matter	0.00715
Propionaldehyde	0.03673
Selenium Compounds	0.00002
TCDB-p-dioxin	0.000000034
Toluene	0.0678
Xylene	0.0109

Pollutant	Potential To Emit (tons/year)
Total HAPs	**131.51 tons per year**

PCWP MACT (40 CFR Part 63 Subpart DDDD)

17. The facility is subject to the PCWP MACT and has chosen a compliance option to reduce overall formaldehyde emissions by 90% (Table 1B, Row 5 of the PCWP MACT). A biofiltration system was installed to control emissions from Press-1. In conjunction with the biofilter, a process change and continued use of an existing Wet ESP are used to meet the required 90% reductions required. The facility changed the point at which the wood fiber is resinated by creating Emission Unit Blender-1 (Blender-1) and eliminating the Dryer-1 resination system. What was called Dryer-2 is now a tube-type pneumatic wood fiber conveyance system and is no longer an emission unit. In order to show the 90% overall formaldehyde reductions, historic emission rates (prior to the Blender-1 resination process change) are evaluated by way of source testing and this historic rate is used as the emission rate input ("ERin") in the equation to evaluate the 90% formaldehyde reduction. Prior to startup of the new resination system, the facility was required to perform testing for the three primary MDF product categories and averaging the results to determine ERin as a function of production. The facility chose to meet the PCWP MACT requirements by way of implementing the following (only those PCWP MACT requirements and changes that are somewhat site-specific are listed below):
    - 17.a. Changing the resination application point to downstream of the dryer (Dryer-1);
    - 17.b. Using an add-on control device (Press-1 Biofilter) on the press exhaust (Press-1);
    - 17.c. Continued use of the existing wet-scrubbers (Wet ESP #1 and #2) on Dryer-1;
    - 17.d. Required analysis of the Wet ESP #1 and #2 air and water exhaust as a source of HAP emissions;
    - 17.e. Follow the 40 CFR 63.2268 requirements for initial compliance demonstration for a wet control device;
    - 17.f. Petition under Table 2, Row 4 of the PCWP NESHAP for site-specific operating parameters.

BOILER NESHAP (40 CFR Part 63 Subpart DDDDD)

18. **Applicability:** As a facility that is considered a major source of HAPs, the facility's boilers will be subject to the 40 CFR Part 63 Subpart DDDDD (5D) Boiler and Process Heater NESHAP as promulgated. During the previous permit term, the facility discontinued the option to burn sanderdust in Boiler-2 and removed the associated baghouse (BH-5) as part of a strategy to meet the Major Source Boiler NESHAP. Both boilers are now fired exclusively on natural gas. The facility is required to conduct annual boiler tune-ups to meet the work practice requirements in the NESHAP.

19. **Emission factor verification:** Boiler-2 was tested in August of 2009 as part of an EPA Section 114 Information Collection Request to set the floor for the Boiler MACT. Boiler-2 was also tested in 2007 to verify emission factors, as required by the permit. The emission factor verification testing for the upcoming permit term is waived due to the facility applying for and obtaining a permit change to discontinue the burning of sanderdust in Boiler-2 (Addendum No. 1, Minor Modification issued November 10, 2015). Emission factor verification is not required for natural gas combustion.

GASOLINE DISPENSING FACILITY (GDF) NESHAP (40 CFR Part 63 Subpart CCCCCC and LRAPA 44-170 through 44-290)

20. **Applicability:** As a facility that is considered a major source of HAPs, the facility's 1,000-gallon gasoline storage tank is <u>not</u> subject to the 40 CFR Part 63 Subpart CCCCC (6C) GDF NESHAP as promulgated. However, LRAPA adopted requirements that apply to GDFs at major sources of HAPs under LRAPA 44-170 through 44-290. The facility is a Registered source with LRAPA and filed the form on April 14, 2010. The actual gasoline throughput/usage for 2018 was 2,416 gallons/year. The requirements include work practices to minimize emissions and to install/maintain submerged fill pipe(s).

MONITORING REQUIREMENTS

21. Section 70.6(a)(3) of the federal Title V permit rules, requires all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the facility's compliance with the permit.

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

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

23. **Compliance Assurance Monitoring (CAM):** The facility is subject to the provisions of 40 CFR Part 64 -- Compliance Assurance Monitoring (CAM) because of its classification as a Title V facility, and because of control equipment, emission limitations and pre-control emissions at or above Title V major source levels at one (1) or more pollutant-specific emission units. CAM applies to the baghouses in emissions units (EUs) Blender-1, Press-1, and Mat-1 for particulate matter. The permit includes CAM requirements for the applicable units and/or control devices. CAM doesn't apply to the Dryer-1 and Press-1 for VOC because there is not an emission limitation or standard for that pollutant and because the unit is exempt from CAM because it is subject to an emission limit or standard under section 112 of the FCAA (MACT). The following table evaluates CAM applicability for all emission units with control devices:

Emission Unit	Uses a Control Device for a Regulated Pollutant	Pollutant	Uncontrolled Potential Emissions Exceed Major Source Threshold	Is there an Emission Limitation or Standard for this Pollutant	Subject to CAM for the Pollutant
Dryer-1 (WESP #1 & #2)	Yes	Particulate Matter	Yes	Yes	Yes
Dryer-1 (WESP #1 & #2)	Yes	VOC	Maybe	No	No
Blender-1 (BH BL-1)	Yes	Particulate Matter	Yes	Yes	Yes
Press-1 (BH P-1N and P-1S)	Yes	Particulate Matter	Yes	Yes	Yes
Press-1 (Biofilter)	Yes	VOC	Maybe	No	No
Mat-1 (baghouses)	Yes	Particulate Matter	Yes	Yes	Yes

Daily pressure drop readings and specific parametric action levels for the baghouse control devices on the respective emission units are CAM requirements included in the permit. Daily temperature and voltage

readings and specific parametric action levels for the WESPs are CAM requirements included in the permit. 1-time-per-day monitoring frequencies are allowed by rule since the post control emissions for the affected EUs are less than the major source threshold. The CAM requirements have not been revised with this renewal.

RECORDKEEPING REQUIREMENTS

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

REPORTING REQUIREMENTS

25. The permit includes a requirement for submitting semi-annual and annual monitoring reports and compliance certifications. Excess emissions are required to be reported to LRAPA immediately within 1 hour as well as recorded in a log book attached to the annual report. Emissions fees reports are required annually. The annual report is also required to include annual greenhouse gas (GHG) emissions in terms of CO_2 equivalents (CO_2eq).

GENERAL BACKGROUND INFORMATION

24. The facility is located in an attainment area for PM, $PM_{2.5}$, VOC, NOx, SO_2 and a maintenance area for CO and PM_{10}. The area within the Eugene-Springfield urban growth boundary is classified as a maintenance area for CO and PM_{10}.

25. This facility is located within 100 kilometers of two Class-I air quality protection areas: Diamond Peak Wilderness, and Three Sisters Wilderness.

COMPLIANCE HISTORY

26. During the previous permit term, the facility was inspected numerous times. Most of the inspections found the facility to be complying, however there were enforcement actions taken in some instances. The compliance history below summarizes the enforcement actions. The inspection dated 7/6/16 and 10/1/18 were comprehensive full compliance evaluations (FCEs).

27. The facility was issued a Notice of Non-Compliance (NON 3705) on October 1, 2018 and Notice of Violation (NOV) No. 18-3705 on February 1, 2019 for failure to meet the requirements of 40 CFR Part 63 Subpart DDDD by way of a source test conducted July 24-26, 2018, for failure to conduct semi-annual calibration of biofilter temperature monitoring device, and for failure to conduct quarterly inspection of biofilter temperature monitoring components. The facility was required to provide LRAPA with a proposal for methods to increase reduction of formaldehyde from Dryer-1. The facility submitted the response on November 15, 2018. The facility conducted a re-test on October 16-17, 2018 and showed compliance with the 90% formaldehyde reduction requirement.

    The NOV imposed a civil penalty in the amount of $10,800. LRAPA withdrew the NCP and reissued a revised NCP on March 11, 2019. The revised NCP imposed a civil penalty in the amount of $5,400. The facility entered into a Supplemental Environmental Project (SEP) with the City of Oakridge on May 31, 2019 and paid the City $4,320. The City of Oakridge acknowledged receipt of the payment on May 31, 2019 with the penalty going towards the City's Woodsmoke Mitigation Project and the action was closed.

28. The facility was issued a Notice of Non-Compliance (NON 3514) on May 9, 2014 for failure to meet the requirements of 40 CFR Part 63 Subpart DDDD. The facility entered into a Stipulated Final Order (SFO) 14-3514 on May 30, 2014 to resolve the matter. The SFO required that the facility pay a civil penalty in

the amount of $4,400 and take additional steps to obtain compliance. LRAPA determined the facility fulfilled all conditions of the SFO and closed the action on February 7, 2016.

29. The facility was issued a Notice of Non-Compliance (NON 3059) and Notice of Violation (NOV) No. 08-3059 on October 1, 2008 for failure to meet the requirements of 40 CFR Part 63 Subpart DDDD. A civil penalty in the amount of $3,600 was assessed. The facility paid the fine and entered into a Stipulated Final Order (SFO) 08-0359 to resolve the matter. The facility failed to demonstrate compliance within 180 days of startup and was assessed a daily civil penalty of $250 per day until they demonstrated compliance with the MACT showing a 90% reduction in formaldehyde emissions. Total civil penalty amounted to $13,750.

30. The facility was issued a Notice of Non-Compliance (NON 2242) on April 19, 2001, for failure to take reasonable precautions to prevent particulate matter from becoming airborne because a sawdust collection duct that was leaking. The duct had previously been repaired using duct tape and the new leak appeared to have opened just prior to discovery by LRAPA staff. The leak was repaired the same day and was not leaking upon further inspection.

31. The facility was issued a Notice of Non-Compliance (NON 1928) on June 21, 2000, for failure to take reasonable precautions to prevent particulate matter from becoming airborne. In late May to early June of 2000, LRAPA received a complaint(s) regarding particulate matter depositing on neighbor's automobiles. The complaint was determined to be likely a result of inadequate housekeeping (e.g., prompt clean-up of spilled materials) and, possibly, some uncured fiber mat material discharged from the press or unloader vents. The baghouse on Press-1 will reduce this problem considerably if the problem is originating at the press vents. The housekeeping practices will be improved with clean-up required (Condition 4.a) for material spills within eight (8) hours of their discovery by facility staff. The prompt clean-up requirement is included as a facility-wide corrective measure to reduce the likelihood that future complaints will occur.

32. The U.S. Environmental Protection Agency (USEPA) issued a Notice of Violation (NOV) to the facility under Section 114 of the Clean Air Act on May 7, 1998. The NOV alleged violations of the Prevention of Significant Deterioration (PSD) regulations in 40 CFR 52 and the corresponding local regulations in LRAPA Title 38. Willamette agreed to install VOC control equipment at a number of facilities, including the Eugene MDF facility. This Title V permit was written to incorporate the required (or agreed upon) regenerative thermal or catalytic oxidizer for control of VOC from press vents and the press unloader vent. The RTO was removed from the press vents through an agreement reached with the EPA. The baghouse, installed to capture PM and prevent bake-out opacity problems and press enclosure, are required to remain under the court-ordered (U.S. District Court, District of Oregon) consent decree closure dated 10/4/04.

SOURCE TEST RESULTS

33. The following tests have been performed at this facility:

Emission Point	Date of Test	Results of Test	Units
COEN BURNER #1 (LINK DRYER)	4/16/75	5.3 (TSP) 0.072	lbs/hr gr/dscf
COEN BURNER #2 (Flash Tube)	4/26/76	2.24 (TSP) 0.126	lbs/hr gr/dscf
Cyclone Exhaust from Bark-fired Dryer (ARNOLD DRYER)	4/26/76	9.75 (TSP) 0.073	lbs/hr gr/dscf

Emission Point	Date of Test	Results of Test	Units
Flash Tube #2	4/26/76	29.8 (TSP) 0.079	lbs/hr gr/dscf
Flash Tube #1 Dryer	11/9/87	23.96 (PM) 0.224	lbs/hr gr/dscf
Arnold Dryer	11/9/87	5.0 (PM) 0.043	lbs/hr gr/dscf
Westec Dryer	2/19/88	10.15 (PM) 0.27	lb/hr gr/dscf
Rotary Pre-dryer E-tube Outlet	9/6/89	4.13 (PM) 0.019 57.1 (CO)	lbs/hr gr/dscf lbs/ton sanderdust
Flash Tube #1	9/8/89	4.61 (TSP) 0.164 13.4 (CO)	lbs/hr gr/dscf lbs/ton sanderdust
Rotary Pre-dryer E-tube Outlet (re-test from 9/6/89)	10/5/89	2.0 (PM) 0.009	lbs/hr gr/dscf
Pre-drier	3/21/95	5.6 (CO) 12.5 (NO_x)	lbs/hr lbs/hr
Boiler	3/22/95	6.7 (CO) 13.5 (NO_x)	lbs/hr lbs/hr
Baghouse	10/3/96	0.2 (PM)	lb/hr
Primary Dryer (s1)	10/16/96	1.6 (PM) 1.4 (CO) 7.8 (NO_x) 4.3 (Total VOC)	lbs/hr lbs/ton sanderdust lbs/ton sanderdust lbs/hr
Primary Dryer (s2)	10/16/96	3.3 (PM) 3.9 (CO) 13.0 (NO_x) 9.8 (Total VOC)	lbs/hr lbs/ton sanderdust lbs/ton sanderdust lbs/hr

Emission Point	Date of Test	Results of Test	Units
Press Vents	11/13/96	0.66 (PM) 0.89 (Total VOC)	lb/MSF 3/4" basis lb/MSF 3/4" basis
	4/5/01	2.08 (PM, baghouse inlet concentration as tested)	1b/MSF ¾" basis
	4/30/02 AND 9/10/02	0.15 (TOTAL VOC)	1b/MSF ¾" basis
Cleaver Brooks Boiler	2/6/97	1.1 (CO) 26.0 (NO_x)	lbs/hr lbs/hr
Primary Dryer	8/19/97	11.63 (CO) 24.1 (NO_x)	lbs/ton sanderdust lbs/ton sanderdust
Dryer-1 (Natural Gas)	6/24/03	3.70 (PM) 2.8 (NOx) 11.3 (CO) 14.49 (VOC as propane) 6.43 (Formaldehyde) 16.16 (Methanol)	lbs/hr lbs/hr lbs/hr lbs/hr lbs/hr lbs/hr
Dryer-1 (Sanderdust)	6/26/03	5.91 (PM) 14.15 (NOx) 20.63 (CO) 25.5 (VOC as propane) 8.3 (Formaldehyde) 10.54 (Methanol)	lbs/hr lbs/hr lbs/hr lbs/hr lbs/hr lbs/hr
Dryer-2	6/27/03	0.06 (PM) 0.34 (VOC as propane) 0.24 (Formaldehyde) 0.26 (Methanol)	lbs/hr lbs/hr lbs/hr lbs/hr
Dryer-1	11/17/04	15 HAPs and/or Metals	Results on file
Boiler-2 (Baghouse BH-5 Exhaust)	8/2/07	0.0146 (PM) 1.30 (PM) 3.08 (PM) 0.044 (PM)	gr/dscf @ 12% O_2 lbs/hr lbs/BDT sanderdust lbs/MLbs Steam
Boiler-2 (Baghouse BH-5 Exhaust)	8/2/07	210.3 (CO) 9.57 (CO) 22.67 (CO)	ppm, dry lb/hr lbs/BDT sanderdust
Boiler-2 (Baghouse BH-5 Exhaust)	8/2/07	391.7 (NO_x) 29.30 (NO_x) 69.34 (NO_x)	ppm, dry lb/hr lbs/BDT sanderdust

Emission Point	Date of Test	Results of Test	Units
Boiler-2 (Baghouse BH-5 Exhaust)	8/2/07	1.92 (pressure drop)	Inches of water
Dryer 1 Wet ESP No. 1 and 2 Combined INLET	11 18/08 Product = 17 mm MLDGL	36.6 (Formaldehyde) 9.76 (Formaldehyde) 0.653 (Formaldehyde) 0.331 (Formaldehyde)	ppm lb/hr lb/BDT furnish lb/ MMBtu
Dryer 1 Wet ESP No. 1 and 2 Combined INLET	11 18/08 Product = 11/16 PREMIER	33.0 (Formaldehyde) 8.47 (Formaldehyde) 0.545 (Formaldehyde) 0.166 (Formaldehyde)	ppm lb/hr lb/BDT furnish lb/ MMBtu
Dryer 1 Wet ESP No. 1 and 2 Combined INLET	11 18/08 Product = 17 mm LITE	35.9 (Formaldehyde) 9.49 (Formaldehyde) 0.601 (Formaldehyde) 0.266 (Formaldehyde)	ppm lb/hr lb/BDT furnish lb/ MMBtu
Press-1 Exhaust (Biofilter INLET)	11/20/08 Product = 17 mm MLDGL	11.5 (formaldehyde) 1.88 (formaldehyde) 0.157 (formaldehyde)	ppm lb/hr lb/MSF 3/4 “ basis
Press-1 Exhaust (Biofilter INLET)	11/20/08 Product = 11/16 PREMIER	9.8 (formaldehyde) 1.60 (formaldehyde) 0.139 (formaldehyde)	ppm lb/hr lb/MSF 3/4 “ basis
Press-1 Exhaust (Biofilter INLET)	11/21/08 Product = 14 mm LITE	15.9 (formaldehyde) 2.67 (formaldehyde) 0.226 (formaldehyde)	ppm lb/hr lb/MSF 3/4 “ basis
Press Enclosure	11/21/08 and 6/20/09	100% capture, meets Wood Product Enclosure as defined in 63.2292	NA
Dryer 1 Wet ESP No. 1 and 2 Combined	5/20/09 Product = unknown	43.2 (Methanol) 13.27 (Methanol) 1202.46 (Methanol) 12.893 (Methanol) 0.764 (Methanol)	ppm lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	5/20/09 Product = Unknown	6.2 (Formaldehyde) 1.78 (Formaldehyde) 160.27 (Formaldehyde) 1.718 (Formaldehyde) 0.101(Formaldehyde)	ppm lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	5/20/09 Product = Unknown	14.4 (NMVOC) 11.5 (NMVOC) 553.44 (NMVOC) 5.928 (NMVOC) 0.66 (NMVOC)	ppmv, as propane, dry lb/hr, as propane lb/MMCF, as propane lb/ton SD, as propane lb/ BDT furnish, propane
Blender-1 Baghouse (BH BL-1) east and west ducts combined outlet	5/22/09 Product = Unknown	1.9 (Methanol) 0.67 (Methanol) 0.037 (Methanol)	ppm lb/hr lb/ BDT furnish
Blender-1 Baghouse (BH BL-1) east and west ducts combined outlet	5/22/09 Product = Unknown	0.6 (Formaldehyde) 0.21 (Formaldehyde) 0.012 (Formaldehyde)	ppm lb/hr lb/ BDT furnish

Emission Point	Date of Test	Results of Test	Units
Blender-1 Baghouse (BH BL-1) east and west ducts combined outlet	5/22/09 Product = Unknown	5.1 (NMVOC) 0.84 (NMVOC) 0.046 (NMVOC)	ppm, as propane, dry lb/hr as propane lb/ BDT furnish, propane
Dryer 1 Wet ESP No. 1 and 2 Combined	6/17/09 through 6/20/09 Product = 14 mm LITE	1.6 (Formaldehyde) 159 (Formaldehyde) 2.1(Formaldehyde) 0.11(Formaldehyde)	lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	6/17/09 through 6/20/09 Product = 5/8 PREMIER	1.6 (Formaldehyde) 159 (Formaldehyde) 1.9 (Formaldehyde) 0.094(Formaldehyde)	lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	6/17/09 through 6/20/09 Product = 14 mm MLDGL	2.1 (Formaldehyde) 209 (Formaldehyde) 2.5(Formaldehyde) 0.13(Formaldehyde)	lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Press-1 Biofilter	6/17/09 through 6/20/09 Product = 14 mm LITE	<0.023(Formaldehyde) <0.0020(Formaldehyde)	lb/hr lb/MSF ¾" basis
Press-1 Biofilter	6/17/09 through 6/20/09 Product = 5/8 PREMIER	<0.021(Formaldehyde) <0.0017(Formaldehyde)	lb/hr lb/MSF ¾" basis
Press-1 Biofilter	6/17/09 through 6/20/09 Product = 5/8 PREMIER	<0.023(Formaldehyde) <0.0020(Formaldehyde)	lb/hr lb/MSF ¾" basis
Dryer 1 Wet ESP No. 1 and 2 Combined	8/13/09 and 8/14/09 Product = 3/4 PREMIER	0.61 (Formaldehyde) 66.2 (Formaldehyde) 0.78 (Formaldehyde) 0.039 (Formaldehyde)	lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	8/13/09 and 8/14/09 Product = 14 mm MLDGL	0.63 (Formaldehyde) 65.1 (Formaldehyde) 0.75 (Formaldehyde) 0.040 (Formaldehyde)	lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	8/13/09 and 8/14/09 Product = 17 mm LITE	0.76 (Formaldehyde) 76.2 (Formaldehyde) 1.05 (Formaldehyde) 0.050 (Formaldehyde)	lb/hr lb/MMCF lb/ton SD lb/ BDT furnish
Boiler-2 (Baghouse BH-5 Exhaust)	8/26/09 and 8/27/09 EPA Boiler MACT Information Collection Request (ICR)	0.000063 (Filterable PM2.5) 0.00074 (Filterable PM) 0.0017 (Condensable PM) [$<1.4x10^{-5}$] (Total Metals, Hg) 478 (CO) 452 (NOx) 0.6 (SO2) 12.9 (THC as propane) 0.31 (Formaldehyde)	lb/MMBtu lb/MMBtu lb/MMBtu lb/MMBtu ppm at 7% O2 ppm at 7% O2 ppm at 7% O2 ppm at 7% O2 ppm at 7% O2
Dryer 1 Wet ESP No. 1 and 2 Combined	2/16/10 and 2/17/10 Product = 18 mm LITE	1.27 (Formaldehyde)	lb/hr

Emission Point	Date of Test	Results of Test	Units
Dryer 1 Wet ESP No. 1 and 2 Combined	2/16/10 and 2/17/10 Product = 15mm EVO	1.04 (Formaldehyde)	lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	2/16/10 and 2/17/10 Product =3/4 PREMIER	1.13 (Formaldehyde)	lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	2/16/10 and 2/17/10 10 Run Average	1.144 (Formaldehyde)	lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	11/10/10	5.4(PM) 445 (PM) 1.7 (PM) 0.19 (PM)	Lb/hr Lb/MMCF Lbs/ton SD lb/BDT furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	11/10/10	34.8 (CO) 619.4 (CO) 32.72 (CO)	Lb/hr Lb/MMCF Lbs/ton SD
Dryer 1 Wet ESP No. 1 and 2 Combined	11/10/10	38.9 (NOx) 241.3 (NOx) 22.14 (NOx)	Lb/hr Lb/MMCF Lbs/ton SD
Press-1 Exhaust (Biofilter INLET)	11/09/10 Product = Not specified	2.1 (VOC as propane) 0.20 (VOC as propane)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter INLET)	11/09/10 Product = Not specified	<0.066 (formaldehyde) <0.066 (formaldehyde)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter INLET)	11/09/10 Product = Not specified	2.3 (methanol) 0.21 (methanol)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter OUTLET)	11/09/10 Product = Not specified	1.1 (PM) 0.094 (PM)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter OUTLET)	11/09/10 Product = Not specified	0.24 (CO) 0.021 (CO)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter OUTLET)	11/09/10 Product = Not specified	0.77 (NOx) 0.069 (NOx)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter OUTLET)	11/09/10 Product = Not specified	0.38 (VOC as propane) 0.034 (VOC as propane)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter OUTLET)	11/09/10 Product = Not specified	<0.034 (formaldehyde) <0.00030 (formaldehyde)	Lb/hr lb/MSF 3/4 " basis
Press-1 Exhaust (Biofilter OUTLET)	11/09/10 Product = Not specified	<0.30 (methanol) <0.027 (methanol)	Lb/hr lb/MSF 3/4 " basis

Emission Point	Date of Test	Results of Test	Units
Press-1 Exhaust (Biofilter OUTLET)	07/28/11 Product 17mm MLDGE	<0.023 (formaldehyde, Method reporting limit)	Lb/hr
Press-1 Exhaust (Biofilter OUTLET)	07/28/11 Product 17mm EVO	<0.023 (formaldehyde, Method reporting limit)	Lb/hr
Press-1 Exhaust (Biofilter OUTLET)	07/29/11 Product 11/16 Premier	<0.022 (formaldehyde, Method reporting limit)	Lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	07/25/11 Product = 15mm EVO	1.26 (Formaldehyde)	lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	07/25/11 Product = 15mm MLDGE	0.97 (Formaldehyde)	lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	07/26/11 Product =18mm PREMIER	1.2 (Formaldehyde)	lb/hr
Press-1 Exhaust (Biofilter OUTLET)	2/14/12 Product =EVO, PREMIER, and MLDGE	< 0.015 (Formaldehyde)	lb/hr
Dryer 1 Wet ESP No. 1 and 2 Combined	7/24/12 & 7/25/12 Product =PREMIER, EVO and MLDGE	1.4 (Formaldehyde)	lb/hr
Press-1 Exhaust (Biofilter OUTLET) and Dryer 1 Wet ESP No. 1 and 2 Combined	7/23/13 through 7/26/13 Product =EVO, PREMIER, and LITE	84.5 % formaldehyde reduction	%
Press-1 Exhaust (Biofilter OUTLET) and Dryer 1 Wet ESP No. 1 and 2 Combined	10/15/13 through 10/16/13 Product =EVO, PREMIER, and LITE	87.8 % formaldehyde reduction	%
Press-1 Exhaust (Biofilter OUTLET) and Dryer 1 Wet ESP No. 1 and 2 Combined	1/23/14 through 1/24/13 Product =EVO, PREMIER, and LITE	84.7 % formaldehyde reduction	%
Press-1 Exhaust (Biofilter OUTLET) and Dryer 1 Wet ESP No. 1 and 2 Combined	7/15/14 through 7/16/14 Product =EVO, PREMIER, and LITE	87.9 % formaldehyde reduction	%
Press-1 Exhaust (Biofilter OUTLET) and Dryer 1 Wet ESP No. 1 and 2 Combined	8/11/15 through 8/13/15 Product =EVO, MLDGE, and eLITE	90.97 % formaldehyde reduction	%
Press-1 Exhaust (Biofilter OUTLET) and Dryer 1	8/1/16 through 8/4/16 Product =Trupan Plus, Trupan and Ultra Lite	90.48 % formaldehyde reduction	%

Emission Point	Date of Test	Results of Test	Units
Wet ESP No. 1 and 2 Combined			
Press-1 Exhaust (Biofilter OUTLET),	3/14/17 through 3/17/17 Product =Not specified	0.01 formaldehyde 0.53 methanol 0.046 NOx 0.043 CO 0.066 PM	lb/MSF ¾"
Dryer 1 Wet ESP No. 1 and 2 Combined	3/14/17 through 3/17/17 Product =Not specified	0.131 formaldehyde 0.548 methanol 1.29 NMVOC 0.120 PM	lb/BDT Furnish
Dryer 1 Wet ESP No. 1 and 2 Combined	3/14/17 through 3/17/17 Product =Not specified	1.84 NMVOC 30.52 NOx 4.02 CO 1.70 PM	lb/BDT Sanderdust
Dryer 1 Wet ESP No. 1 and 2 Combined	3/14/17 through 3/17/17 Product =Not specified	189.38 NMVOC 3192.31 NOx 418.07 CO 176.4 PM	lb/MMCF Natural Gas
Blender-1 West and East Baghouses	3/14/17 through 3/17/17 Product =Not specified	0.06 formaldehyde 0.024 methanol 0.027 NMVOC	lb/BDT furnish
Startup Vault Cyclone (Cyclone 1)	9/27/17	100%	Capture efficiency
Dryer 1 Wet ESP No. 1 and 2 Combined	7/24/18 through 7/25/18 Product = Unknown	88.41 % formaldehyde reduction	%
Dryer 1 Wet ESP No. 1 and 2 Combined	10/16/18 through 10/17/18 Product = 12mm Trupan, 11/16 Trupan Plus, and 17mm Ultra Lite	93.1 % formaldehyde reduction	%

PUBLIC NOTICE

34. This draft permit was on public notice from December 6, 2019 to January 9, 2020. No written comments were submitted during the 35-day comment period. No public hearing was 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, LRAPA will review the comments and modify the permit as may be appropriate. A proposed permit will then be sent to EPA for a 45-day review period. LRAPA will 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 the EPA does not object in writing, any person may petition the EPA within 60 days after the expiration of the 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 that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period.

35. This proposed permit was sent to EPA on January 13, 2020, for a 45-day review period. Because no adverse comments were received and there was no substantive changes to the permit after the public comment period, LRAPA requested and EPA agree to expedited review. The public will have 105 days (45-day EPA review period plus 60 days) from the date the proposed permit was sent to EPA to appeal the permit with EPA.

Max/cmw
01/13/2020

Summary emissions data

Device/Process	PM	PM10	PM2.5	SO2	CO	VOC	NOx	GHG	Pb
	tons/year	tons/year		tons/year	tons/year	tons/year	tons/year	tons/year	tons/year
Boilers (Boilers 2 and 3)	0.4	0.4	0.4	0.5	14.8	1.0	17.7	21,180.0	0.00009
Dryer-1 Furnish	12.6	12.6	12.6	0.0	0.0	34.6	0.0		0.0000
Fines	5.6	5.6	5.6	0.0	65.6	30.0	85.0	13956.7	0.0003
Natural Gas	0.3	0.3	0.3	0.3	37.6	0.7	26.0	15000.0	0.0001
Blender-1 BH - BL-1	0.3	0.3	0.3			5.4		8520.0	
Natural gas	0.2	0.2	0.2	0.2	6.0	0.4	7.1		0.0000
Press-1	4.8	4.8	4.8	0.0	1.9	4.0	3.5		0.0000
Press-1 RCDME						1.2	0.1		
Mat-1 BH/Cyclone									
(BH-1,4,7,8,11,12,13									
14, 15 & Cyclone 1)	0.2	0.2	0.1	0.0	0.0	0.0	0.0		0.0000
BH-6	0.3	0.3	0.2	0.0	0.0	0.0	0.0		0.0000
Mat-3	0.2	0.1	0.0	0.0	0.0	0.0	0.0		0.0000
Mat-4	8.5	8.5	4.3	0.0	0.0	0.0	0.0		0.0000
Piles-1	0.1	0.0	0.0	0.0	0.0	1.5	0.0		0.0000
Aggregate Insignificant	1.0	1.0	1.0			1.0			
TOTAL (PTE)	**35**	**34**	**30**	**1.0**	**126**	**80**	**139**	**58,657**	**0.0005**

PSEL Summary

Emission Unit	PM	PM10	PM2.5	SO2	NOx	CO	VOC	
Boilers Natural Gas	0.4	0.44	0.44	0.46	17.65	14.83	0.97	
Dryer 1 Furnish	12.6	12.61	12.61	--	--	--	34.57	
Dryer 1 Fines	5.6	5.57	5.57	--	85	65.59	29.99	
Dryer 1 Natural Gas	0.3	0.31	0.31	0.33	26.04	37.57	0.69	
Blender 1 Baghouse BL-1 (East and West)	0.3	0.34	0.34		0	0	5.4	
Blender 1 Natural Gas	0.2	0.18	0.18	0.19	7.1	5.96	0.39	
Press 1	4.8	4.8	4.8		3.48	1.92	4.01	
Press 1 RCDME	--	--	--	--	0.11		1.24	
Mat 1 BH/Cyclones	0.2	0.19	0.05	--	--	--	--	
Mat 1 BH 6	0.3	0.33	0.165	--	--	--	--	
Mat 3	0.2	0.07	0.035	--	--	--	--	
Mat 4	8.5	8.5	4.25	--	--	--	--	
Piles 1	0.1	0.03	0.00435	--	--	--	1.53	
Aggregate Insignificant	1	1	1	--	--	--	1	
PSEL	35	34	30	39	139	126	80	
Netting Basis NB	84	72	62	2.7	169	343	228	From 2012 renewal
Unassigned Emissions*	49	38	32	--	30	217	148	

* Unassigned Emissions equal the Netting basis minus the PSEL (PTE)

Emission Factor and Reference Table

Source	Units (lbs per)	CO	REF	PB	REF	NOx	REF	PM	REF	PM10	REF	SO2	REF	VOC	REF
Boilers #2 & #3															
Natural gas	MMCF	84	1	0.0005	3	100	1	2.5	1	2.5	1	2.6	1	5.5	1
Westec Tube Dryer #1 furnish dried	tons furnish							0.15	5	0.15	5			0.41	5
fines	ton SD	15.0	5	0.00006	1	19.43	5	1.27	5	1.27	5			6.9	5
natural gas	MMCF	301	5	0.0005	3	208	5	2.5	1	2.5	1	2.6	1	5.5	1
Blender-1 Baghouse BL	tons furnish							0.004	12	0.004	12			0.063	13
Natural gas	MMCF	84	1	0.0005	3	100	1	2.5	1	2.5	1	2.6	1,3	5.5	1
Press - MDF	MSF	0.032	6	3.E-07	10	0.058	6	0.080	6	0.080	6			0.069	6
MAT-1:Baghouse 1,4,7,8,11,12, 13,14,15	BDT							0.001	7	0.001	7				
MAT- 1:Baghouse #6	BDT							0.04	7	0.04	7				
MAT-1: Cyclone #1	BDT							0.001	7	0.001	7				
Material Handling Fugitives (Mat-3)	tons/yr							0.19	4	0.07	4				
Material Handling Fugitives (Mat-4)	BDT							0.1	7	0.1	7				
Piles Fugitives	tons/yr							0.057	4	0.029	4			1.53	4
AI - Unpaved Roads	year							2000.00	4	2000.00	4				
AI - Storage Tanks and Misc Chem.	year													2000	4

References:

1 DEQ AQ-EF05
3 AP-42 Table 1.4-2, 7/98
4 See attached spreadsheets for numbers.
5 Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.
6 Ave 2010 and 2017 Source Tests
7 DEQ Wood Products Emission Factors AQ-EF02
8 Eugene MDF Dryer tests (primary and secondary) 6/03 Source Test - Std deviation removed.
9 Eugene MDF Press-1 source tests (4/30/02 and 9/10/02). Baghouse inlet VOC averaged over 7 runs. For EF, removed 2 standard deviations that were added to mean.
Ref 9 Continued: Adjusted for % predicted reduction through biofilter.
10 AP-42 Table 1.4-2,7/98 emission factor 0.0005 lbs/mmcf converted to lb/msf. Natural gas usage based on 5.898 mmbtu/hr input.
lbs/msf = 51.66 mmcf/yr x 0.0005 lb/mmcf/92000 msf/yr
12 Blender-1 PM and PM10 are from 2003 source test. Std dev. Has been removed with the 2018 renewal
13 Average of 2009 and 2017 Source Tests

							Pollutant	PM		
Emissions Unit		Annual rate		Emission factor			Emission (tons/yr)			
								3/4 inch	1/8 inch	
Boilers on Natural Gas		353	MMCF	2.5	lbs/MMCF	DEQ AQ-EF05	0.44			
	Boiler-2	**	**	**	**	**				
	Boiler-3	**	**	**	**	**				
Dryer-1	Furnish	170000	BDT furnish	0.15	lbs/ton furnish	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	12.61	0.210	0.035	
	Fines	8,750	BDT sanderdus	1.27	lbs/ton SD	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	5.57	0.093	0.015	
	Natural Gas	250	MMCF	2.5	lbs/MMCF	DEQ AQ-EF05	0.31	0.005	0.001	
Blender-1	Baghouse BL-1	170000	BDT furnish	0.004	lbs/ton furnish	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	0.34	0.006	0.001	
	Natural Gas	142	MMCF/month	2.5	lbs/MMCF	DEQ AQ-EF05	0.18	0.003	0.001	
Press-1		120000	MSF proc (gross	0.080	lbs/Msf wood pr	Ave 2010 and 2017 Source Tests	4.80	0.080	0.0133	
Mat-1										
BH-1,4,7,8,11										
12, 13, 14,15 & Cyclone 1		388,263	BDT	0.001	lbs/BDT	DEQ Wood Products Emission Factors AQ-EF02	0.19	0.003	0.001	
BH-6		16,422	BDT	0.04	lbs/BDT	DEQ Wood Products Emission Factors AQ-EF02	0.33	0.006	0.001	
Mat-3		see example calculations		see example calculations		see example calculations	0.19	0.003	0.001	
Mat-4		170,000	BDT	0.10	lbs/BDT	DEQ Wood Products Emission Factors AQ-EF02	8.50	0.142	0.024	
Piles-1		170,000	BDT	See Piles PM		AP-42 Aggregate Handling and Storage Piles (formerly AP-42 11.2.7, now 13.2.4)	0.06	0.001	0.0002	
Aggregate Insignificant - Unpaved Roads						See Al-VMT tab	1.00	0.017	0.003	
						ANNUAL TOTAL:	**34.5 tons/year**			
							SUM =	0.551	0.092	lb/MSF

						Pollutant	PM10
Emission Unit	Annual rate				Emission factor	Emission (tons/yr)	
Boilers on Natural Gas	353	MMCF	2.5	lbs/MMCF	DEQ AQ-EF05	0.44	
Boiler-2	**	**	**	**	**		
Boiler-3	**	**	**	**	**		
Dryer-1 Furnish	170000	BDT furnish	0.15	lbs/ton furnish	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	12.61	
Fines	8,750	BDT Sanderdu:	1.27	lbs/ton SD	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	5.57	
Natural gas	250	MMCF	2.5	lbs/MMCF	DEQ AQ-EF05	0.31	
Blender-1 Baghouse BL-1	170000	BDT furnish	0.004	lbs/ton furnish	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	0.34	
Natural Gas	142	MMCF	2.5	lbs/MMCF	DEQ AQ-EF05	0.18	
Press-1	120000	MSF proc (gros	0.080	lbs/Msf wood proc	Ave 2010 and 2017 Source Tests	4.8	
Mat-1							
BH-1,4,7,8,11							
12, 13, 14,15 & Cyclone 1	388,263	BDT	0.001	lbs/BDT	DEQ Wood Products Emission Factors AQ-EF02	0.19	
BH-6	16,422	BDT	0.04	lbs/BDT	DEQ Wood Products Emission Factors AQ-EF02	0.33	
Mat-3	see example calculations		see example calculations		see example calculations	0.07	
Mat-4	170,000	BDT	0.1	lbs/BDT	DEQ Wood Products Emission Factors AQ-EF02	8.5	
Piles-1	170,000	BDT	See Piles PM		AP-42 Aggregate Handling and Storage Piles (formerly AP-42 11.2.7, now 13.2.4)	0.03	
Aggregate Insignificant - Unpaved Roads	see AI-VMT tab					1.00	
					ANNUAL TOTAL:	**34.4**	**tons/year**

							Pollutant	PM2.5	
Emissions Unit		Annual rate			Emission factor			Emission (tons/yr)	
					PM2.5 factor		%PM2.5 reference		
		Annual Rate		%PM2.5					
Boilers on Natural Gas		353	MMCF	100%	2.5	lbs/MMCF	DEQ AQ-EF05	0.44	
	Boiler-2	**	**		**	**			
	Boiler-3	**	**		**	**			
Dryer-1	Furnish	170000	BDT furnish	100%	0.14837	lbs/ton furnish	AP-42, WESP assumption	12.61	
	Fines	8,750	BDT Sanderdu	100%	1.273	lbs/ton SD	AP-42, WESP assumption	5.57	
	Natural gas	250	MMCF	100%	2.5	lbs/MMCF	AP-42, 1.4-2	0.31	
Blender-1	Baghouse BL-	170000	BDT furnish	100%	0.004	lbs/ton furnish	DEQ, AQ-EF08 Baghouse	0.34	
	Natural Gas	142	MMCF	100%	2.5	lbs/MMCF	AP-42, 1.4-2	0.18	
Press-1		120000	MSF proc (gros	100%	0.080	lbs/Msf wood proc	DEQ, AQ-EF08 Biofilter & Baghouse	4.8	
Mat-1									
BH-1,4,7,8,11									
12, 13, 14,15 & Cyclone 1		388,263	BDT	50%	0.0005	lbs/BDT	DEQ, AQ-EF08 Baghouse Cyclone	0.05	
BH-6		16,422	BDT	100%	0.04	lbs/BDT	DEQ, AQ-EF08 Baghouse	0.165	
Mat-3		see example calculations		50%	6	lbs/month	DEQ, AQ-EF08 No Control	0.035	
Mat-4		170,000	BDT	50%	0.05	lbs/BDT	DEQ, AQ-EF08 No Control	4.25	
Piles-1		170,000	BDT	15%	0.7275	lbs/month	Ap-42 & DEQ, AQ-EF08 Storage Pile	0.004	
Aggregate Insignificant - Unpaved Roads		see AI-VMT tab						1.00	
							ANNUAL TOTAL:	**29.8**	**tons/year**

						Pollutant	SO_2
Emissions Unit	Annual rate		Emission factor			Emission (tons/yr)	
Boilers on Natural Gas	353	MMCF	2.6	lbs/MMCF	DEQ AQ-EF05	0.46	
Boiler-2	**	**	**	**	**		
Boiler-3	**	**	**	**	**		
Dryer-1	250	MMCF	2.6	lb/MMCF	DEQ AQ-EF05	0.33	
Blender-1 natural gas	142	MMCF	2.6	lb/MMCF	DEQ AQ-EF05	0.19	
Press-1	N/A	MSF	N/A		N/A	0.00	
Mat-1	N/A		N/A		N/A	0.00	
Mat-3	N/A		N/A		N/A	0.00	
Mat-4	N/A		N/A		N/A	0.00	
Roads-P	N/A		N/A		N/A	0.00	
Piles-1	N/A		N/A		N/A	0.00	
Aggregate Insignificant	N/A		N/A		N/A	0.00	
					ANNUAL TOTAL:	**0.97**	**tons/year**

									Pollutant	CO and GHG	
Emissions Unit	Annual rate		Emission factor				Reference		Emissions	Emission (tons/yr)	
			GHG		CO		GHG	CO	GHG (Ton/yr)	CO	
Boilers on NG	353	MMCF	1.20E+05	lb/mmcf	84	lbs/MMCF	EPA 40 CFR Part 98	DEQ AQ-EF05	21180.00	14.83	
Boiler-2	**	**			**	**		**			
Boiler-3	**	**			**	**		**			
Dryer-1											
Fines	8,750	tons SD	3190.1	lb/ton	14.9922	lbs/ton SD	EPA 40 CFR Part 98	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	13956.69	65.59	
Natural Gas	250	MMCF	1.20E+05	lb/mmcf	300.53	lbs/MMCF	EPA 40 CFR Part 98	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	15000.00	37.57	
Blender-1 natural gas	142	MMCF	1.20E+05	lb/mmcf	84	lbs/MMCF	EPA 40 CFR Part 98	DEQ AQ-EF05	8520.00	5.96	
Press-1	120,000	MSF proccessed	need factor or gas/fines usa		0.032	lbs/MSF		See emission reference sheet		1.92	
Mat-1	N/A				N/A			N/A		0.00	
Mat-3	N/A				N/A			N/A		0.00	
Mat-4	N/A				N/A			N/A		0.00	
Roads-P	N/A				N/A			N/A		0.00	
Piles-1	N/A				N/A			N/A		0.00	
Aggregate Insignifican	N/A				N/A			N/A		0.00	
			ANNUAL TOTAL:						**58,656.69**	**125.9**	**tons/year**

							VOC	
Emissions Unit		Annual rate		Emission factor		Reference	Emission (tons/yr)	
Boilers on NG		353	MMCF	5.5	lbs/MMCF	DEQ AQ-EF05	0.97	
	Boiler-2	**	**	**	**	**		
	Boiler-3	**	**	**	**	**		
Dryer-1	Furnish	170,000	BDT furnish	0.407	lbs/ton furnish	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	34.57	
	Fines	8,750	tons SD	6.9	lbs/ton SD	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	29.99	
	Natural gas	250	MMCF	5.5	lbs/MMCF	DEQ AQ-EF05	0.69	
Blender-1	Baghouse BL	170,000	BDT furnish	0.063	lbs/ton furnish	see "Emission Factors" footnote 15	5.4	
	Natural gas	142	MMCF	5.5	lbs/MMCF	DEQ AQ-EF05	0.39	
Press-1		116,400	MSF proc (gros	0.069	lbs/Msf wood proc	Eugene MDF Press-1 source tests (4/30/02 and 9/10/02). Baghouse inlet VOC averaged over 7 runs. For EF, removed 2 standard deviations that were added to mean.	4.01	
Press-1 RCDME		3,600	MSF proc (gros	0.688	lbs/Msf wood proc	Eugene MDF Press-1 source tests (4/30/02 and 9/10/02). Baghouse inlet VOC averaged over 7 runs. For EF, removed 2 standard deviations that were added to mean.	1.24	
Mat-1		N/A		N/A		N/A	0.00	
Mat-3		N/A		N/A		N/A	0.00	
Mat-4		N/A		N/A		N/A	0.00	
Roads-P		N/A		N/A		N/A	0.00	
Piles-1		170,000	BDT	See Piles VOC		NCASI TB No. 405 and Material Balance	1.53	
Aggregate Insignificant - Storage Tanks and Misc Chem. Usage		See IEU -VOC tab					1.00	
						ANNUAL TOTAL:	**79.8**	**tons/year**

					Pollutant	NO_X		
Emissions Unit		Annual rate		Emission Factor		Reference	Emission (tons/yr)	
Boilers on NG		353	MMCF	100	lbs/MMCF	DEQ AQ-EF05	17.65	
	Boiler-2	**	**	**	**	**		
	Boiler-3	**	**	**	**	**		
Dryer-1								
	Fines	8,750	tons SD	19.43	lbs/ton SD	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	85	
	Natural Gas	250	MMCF	208	lbs/MMCF	Eugene MDF Dryer tests (primary and secondary) 6/03, 11/09, 11/10, and 03/17 Source Tests - Std deviation removed.	26.04	
Blender-1	Natural Gas	142	MMCF	100	lbs/MMCF	DEQ AQ-EF05	7.1	
Press-1		120,000	MSF proc (gross	0.058	lbs/Msf wood pr	See emission reference sheet	3.48	
Press-1 RCDME		3,600	MSF proc (gross	0.064	lbs/Msf wood proc		0.11	
Mat-1		N/A		N/A		N/A	0.00	
Mat-3		N/A		N/A		N/A	0.00	
Mat-4		N/A		N/A		N/A	0.00	
Roads-P		N/A		N/A		N/A	0.00	
Piles-1		N/A		N/A		N/A	0.00	
Aggregate Insignificant		N/A		N/A		N/A	0.00	
						ANNUAL TOTAL:	139.4	tons/year

Hardboard Rule EF

Emission Units	PM Emissions (tons/yr)	Emission Factor (lb/MSF) 3/4 inch basis	Emission Factor (lb/MSF) 1/8 inch basis
Dryer 1 Furnish	12.61	0.210	0.035
Dryer 1 Sanderdust	5.57	0.093	0.015
Dryer 1 Natural Gas	NA	NA	NA
Blender 1 Baghouse 1 (1E&1W)	0.34	0.006	0.001
Blender 1 Natural Gas	NA	NA	NA
Press 1	4.8	0.080	0.0133
Press 1 RCDME	NA	NA	NA
Mat 1 BH/Cyclones	0.19	0.003	0.001
Mat 1 BH 6	0.33	0.006	0.001
Mat 3	0.194	0.003	0.001
Mat 4	8.5	0.142	0.024
Piles 1	0.057	0.001	0.000
Plant Wide	32.591	0.543	0.091

*SF1/8" basis = 120,000 MSF/yr - ¾" x 0.75"/0.125" = 720,000 MSF/yr 1/8" basis

Facility hardboard rule limit = 1.0 lb/MSF on 1/8 basis = 720,000 MSF/yr x yr/8,760hr x 1.0 lb/MSF = 82.2 lb PM/hr

PM2.5 Netting Basis

Emission Unit	PM10 PSEL	PM2.5 Fraction	PM2.5 PSEL
Boilers Natural Gas	0.44	1	0.44
Dryer 1 Furnish	12.61	1	12.61
Dryer 1 Fines	5.57	1	5.57
Dryer 1 Natural Gas	0.31	1	0.31
Blender 1 Baghouse	0.34	1	0.34
Blender 1 Natural Gas	0.18	1	0.18
Press 1	4.8	1	4.80
Mat 1 BH/Cyclones	0.19	1	0.19
Mat 1 BH 6	0.33	1	0.33
Mat 3	0.07	0.5	0.04
Mat 4	8.5	0.5	4.25
Piles 1	0.03	0.15	0.00
Aggregate Insignificant	1.0	1	1.00
PSEL	34.25		29.06

PM2.5/PM10 fraction	0.85	= PM2.5 PSEL / PM10 PSEL
PM10 Netting Basis (NB)	72	From review report
PM2.5 Netting Basis calculated	61.1	=72 x 0.85
PM10 Unassigned	38	From review report
PM2.5 Unassigned calculated	31.9	=38 x 0.87

Updated as a check, but not used in the 2019 renewal.