



**LANE REGIONAL AIR PROTECTION AGENCY**  
**TITLE V OPERATING PERMIT**  
**REVIEW REPORT**  
 1010 Main Street  
 Springfield, OR 97477

**Rosboro Company, LLC**  
 2509 Main Street  
 Springfield, Oregon 97477

**Permit No. 207050**

**Source Information:**

Primary SIC	2421 - Sawmill/Planing Mill
Secondary SIC	2439 – Structural Wood Members
Primary NAICS	321113 – Sawmill/Planing Mill
Secondary NAICS	321213 – Structural Wood Members

Source Categories (LRAPA Title 37, Table 1)	B – 45: Millwork Manufacturing, Structural Wood Members C – 5: All sources having the potential to emit more than 100 tons or more of any regulated pollutant, except GHG, in a year
Public Notice Category	III

**Compliance and Emissions Monitoring Requirements:**

Unassigned Emissions	Y
Emission Credits	N
Compliance Schedule	N
Source Test Date(s)	Y

COMS	N
CEMS	N
Ambient monitoring	N

**Reporting Requirements**

Annual Report (due date)	03/01
Semi-Annual Report (due date)	03/01, 08/15
Greenhouse Gas (due date)	3/31
Monthly Report (due dates)	N

Quarterly Report (due dates)	N
Excess Emissions Report	Y
Other Reports (due date)	N

**Air Programs**

NSPS (list subparts)	N
NESHAP (list subparts)	A, CCCCCC, JJJJJJ
CAM	N
Regional Haze (RH)	N
TACT	Y
Part 68 Risk Management	N
Cleaner Air Oregon (CAO)	N
Synthetic Minor (SM)	N
SM-80	Y (HAP)

Title V	Y
Major FHAP Source	N
Federal Major Source	Y
Type A State New Source Review	N
Type B State New Source Review	N
Prevention of Significant Deterioration (PSD)	N
Nonattainment New Source Review (NNSR)	N

## TABLE OF CONTENTS

LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS REVIEW REPORT .....	3
INTRODUCTION.....	4
FACILITY DESCRIPTION.....	4
GENERAL BACKGROUND INFORMATION .....	4
EMISSION UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION .....	5
CATEGORICALLY INSIGNIFICANT EMISSIONS.....	7
EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING .....	8
EMISSION LIMITS FOR INSIGNIFICANT ACTIVITIES .....	14
FEDERAL REQUIREMENTS .....	14
Chemical Accident Prevention Provisions.....	14
Stratospheric Ozon-Depleting Substances.....	14
National Emission Standards for Hazardous Air Pollutants (NESHAP) .....	14
New Source Performance Standards (NSPS) .....	17
Toxics Release Inventory (TRI).....	17
COMPLIANCE ASSURANCE MONITORING .....	18
PLANT SITE EMISSION LIMITS.....	20
SIGNIFICANT EMISSION RATES .....	22
UNASSIGNED EMISSIONS AND EMISSION REDUCTION CREDITS.....	22
HAZARDOUS AIR POLLUTANTS/TOXIC AIR CONTAMINANTS .....	23
TITLE V PERMIT CHANGE LOG .....	25
GENERAL RECORDKEEPING REQUIREMENTS .....	28
GENERAL REPORTING REQUIREMENTS.....	28
COMPLIANCE HISTORY .....	28
SOURCE TEST RESULTS .....	29
PUBLIC NOTICE.....	33
EPA REVIEW .....	33
EMISSION DETAIL SHEETS .....	34

**LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS REVIEW REPORT**

ACDP	Air Contaminant Discharge Permit	NSPS	New Source Performance Standards
AQMA	Air Quality Management Area	NSR	New Source Review
Act	Federal Clean Air Act	O <sub>2</sub>	Oxygen
ASTM	American Society of Testing and Materials	OAR	Oregon Administrative Rules
Btu	British thermal unit	ODEQ	Oregon Department of Environmental Quality
CAM	Compliance Assurance Monitoring	OPR	Operation
CAO	Cleaner Air Oregon	ORS	Oregon Revised Statutes
CEMS	Continuous Emissions Monitoring System	O&M	Operation and maintenance
CFR	Code of Federal Regulations	Pb	Lead
CI	Compression Ignition	PCD	Pollution Control Device
CMS	Continuous Monitoring System	PM	Particulate matter
CO	Carbon Monoxide	PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
CO <sub>2</sub>	Carbon dioxide	PM <sub>10</sub>	Particulate matter less than 10 microns in size
CO <sub>2e</sub>	Carbon dioxide equivalent	ppm	Parts per million
COMS	Continuous Opacity Monitoring System	PSEL	Plant Site Emission Limit
CPDS	Certified Product Data Sheet	psia	pounds per square inch, actual
CPMS	Continuous parameter monitoring system	PTE	Potential to Emit
DEQ	Department of Environmental Quality	QIP	Quality Improvement Plan
dscf	Dry standard cubic feet	RICE	Reciprocating Internal Combustion Engine
EF	Emission factor	SACC	Semi-Annual Compliance Certification
EPA	US Environmental Protection Agency	SCEMP	Surrogate Compliance Emissions Monitoring Parameter
EU	Emissions Unit	Scf	Standard cubic foot
FCAA	Federal Clean Air Act	SDS	Safety data sheet
FHAP	Federal Hazardous Air Pollutants as defined by LRAPA title 12	SER	Significant emission rate
ft <sup>2</sup>	Square foot	SERP	Source emissions reduction plan
FSA	Fuel sampling and analysis	SI	Spark Ignition
GHG	Greenhouse Gas	SIC	Standard Industrial Code
gr/dscf	Grain per dry standard cubic feet (1 pound = 7000 grains)	SIP	State Implementation Plan
HCFC	Halogenated Chloro-Fluoro-Carbons	SO <sub>2</sub>	Sulfur dioxide
Hr	Hour	ST	Source test
ID	Identification number or label	TAC	Toxic Air Contaminant
I&M	Inspection and maintenance	TACT	Typically Achievable Control Technology
Lb	Pound	TBI	To be installed
LRAPA	Lane Regional Air Protection Agency	TPY	Tons per year
MACT	Maximum Achievable Control Technology	TSM	Total selected metals
MM	Million	VE	Visible emissions
MMBtu	Million British thermal units	VMT	Vehicle miles traveled
NA	Not applicable	VOC	Volatile organic compounds
NESHAP	National Emission Standards for Hazardous Air Pollutants	VHAP	Volatile hazardous air pollutant
NO <sub>x</sub>	Nitrogen oxides	Year	A period consisting of any 12-consecutive calendar month

## INTRODUCTION

1. Rosboro Company LLC, Springfield Facility (“Rosboro Springfield” or “the facility”) is an existing facility applying for a renewal of their Title V federal operating permit. Upon issuance, the Title V federal operating permit will be valid for 5 years.
  - 1.a. Information relied upon: The draft permit is based upon the Title V federal operating permit application received February 6<sup>th</sup>, 2024 (No. 70265) and later correspondence.
2. The facility operates under the primary Standard Industrial Classification (SIC) code of 2421 – Sawmill/Planing Mill and the primary North American Industry Classification System (NAICS) code of 321113 – Sawmill/Planing Mill.
3. 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.

## FACILITY DESCRIPTION

4. The facility processes whole logs into manufactured wood products including dimensional lumber and laminated beams. The facility uses three (3) baghouses, five (5) cyclones, and one (1) target box to control particulate matter emissions from the sawmill and laminating plant activities. The facility has nine (9) dry kilns for reducing the moisture content of green lumber. The facility has three (3) identical wood-fired boilers to provide steam for the dry kilns. The facility has a gasoline dispensing facility consisting of a 4,000 gallon tank. The facility began operation in 1940.

## GENERAL BACKGROUND INFORMATION

5. The facility is a Title V major source because potential emissions of PM, PM<sub>10</sub>, CO, NO<sub>x</sub>, and VOC each exceed 100 tons per year.
6. The facility has obtained federally enforceable permit limits to restrict federal hazardous air pollutants (FHAP) emissions below the major source thresholds of 10 tons per year of an individual FHAP and 25 tons per year of the aggregate of all FHAP and is classified as an area source of FHAP. On September 8, 2011 the facility submitted an application for a significant permit modification to establish federally enforceable synthetic minor FHAP limits of nine (9) tons per year of an individual FHAP and twenty-four (24) tons per year of the aggregate of all FHAP. This synthetic minor limit was included in the Title V operating permit issued on April 2, 2013.
7. The facility is located in an area that has been designated as attainment or unclassified for all criteria pollutants. The facility is inside the Eugene-Springfield UGB as defined in LRAPA 29-0010 which designates the Eugene-Springfield CO and PM<sub>10</sub> maintenance areas. The facility is also located inside the Eugene-Springfield UGB as described in the current Eugene-Springfield Metropolitan Area General Plan, as amended. The facility is located within 100 kilometers of three (3) Class I air quality protection areas: Diamond Peak Wilderness, Mount Washington and Three Sisters Wilderness.
8. LRAPA has reviewed and issued the following permitting actions to this facility since the last permit renewal on March 13<sup>th</sup>, 2020:

Date Approved/Valid	Permit Action Type	Description
11/4/2020	Approval to Construct NC-207050-A20	Installation of planer #3 and shavings handling system, relocation of the plywood truck bin, and installation of Cyclone #2.
12/03/2020	Title V Addendum No. 1	Addition of Planer #3 and associated shavings handling system to Cyclone #4 and Baghouse #5 control system. Addition of new Planer #2 shavings/sawdust handling system to Cyclone #2/Truckbin/Baghouse #5 control system.
04/29/2021	Title V Addendum No. 2	Extension of source testing deadline for EU-01 boilers to allow boiler steaming rates to meet normal maximum operating rate which occurs during autumn months.
09/30/2022	Approval to Construct NC-207050-A22	Installation of a trim saw, gang saw, and associated dust collection systems to manufacture kiln sticks.
12/14/2023	Approval to Construct NC-207050-A23	Relocation of the kiln stick trim and gang saws to #1 Crane Shed. Connect the kiln stick saw system to the Planer #3 pneumatic conveyance system which routes sawdust and shavings to the truck bin via Cyclone #4 and vents to Baghouse #5.
04/24/2024	Off-Permit Change Notification	Retrofit four (4) lumber drying kilns from batch to continuous design.
Upon Issuance	Title V	Renewal

#### EMISSION UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

9. The emission units regulated by the permit are the following:

##### Emission Unit and Pollution Control Device Identification

Emission Unit ID	Emission Unit Description	Installed /Last Modified	Primary Pollution Control Device (PCD ID)	Installed/ Last Modified	Secondary Pollution Control Device (PCD ID)	Installed/ Last Modified
EU-01	Wood-fired Boiler #1	1939	Multiclone #1 (CD-01.1)	2000	NA	NA
	Wood-fired Boiler #2	1939	Multiclone #2 (CD-01.2)	2002	NA	NA
	Wood -fired Boiler #3	1939	Multiclone #3 (CD-01.3)	2002	NA	NA
EU-02	Plantsite Fugitives from Material Handling Activities	NA	None	NA	NA	NA
EU-03	Milling Activities	2023	Cyclone #2 (CD-03A.6)	2020	Baghouse #5 (CD-04B.1)	2002
			Cyclone #4 (CD-03A.1)	2005	Baghouse #5 (CD-04B.1)	2002
			Cyclone#16 (CD-03A.4)	<1978	Baghouse #26 (CD-04B.2)	1994
			Cyclone #17 (CD-03A.5)	<1978	NA	NA
			Cyclone #20 (CD-03A.3)	<1978	NA	NA
			Target Box (CD-03B.2)	2007	NA	NA
			Baghouse #18 (CD-04A.3)	1985	NA	NA
			Baghouse #26 (CD-04B.2)	1994	NA	NA
EU-05	VOC (not listed elsewhere) Paints, inks, sealers, adhesives, etc.	NA	None	NA	NA	NA

EU-08	Continuous Dry Kilns A, B, C, D	2024	None	NA	NA	NA
	Batch Dry Kiln E	2008	None	NA	NA	NA
	Batch Dry Kiln F, G	2017	None	NA	NA	NA
	Batch Dry Kiln H, I	2019	None	NA	NA	NA
AIA-1	Gasoline Dispensing Facility (GDF)	1992	Submerged fill and work practices	NA	NA	NA
AIA-2	Beam Wrap Saw	2004	Cyclone #6 (CD-03A.7)	2004	NA	NA

10. EU-01: Three (3) Wood-Fired Boilers

The facility uses three identical Babcock & Wilcox Dutch-oven style boilers to generate steam for the dry kilns. The boilers are fueled by hog-fuel which is collected as a by-product from the milling operation. The total rated design capacity of the three (3) boilers is 100,000 lbs steam/hr or approximately 150 MMBtu/hr heat input (i.e. ~50 MMBtu/hr each) or ~33,000 lbs steam max/hr per boiler. The boilers' maximum steam operating pressure is 250 psi. Particulate matter and NO<sub>x</sub> emissions are based on the average of all representative source tests and DEQ AQ-EF03 PM<sub>10</sub> and PM<sub>2.5</sub> Fraction (08/2011). SO<sub>2</sub> and VOC emissions are based on DEQ AQGP-010, 13.1.a: Wood Fuel Dutch Oven Emission Factors (10/2017). Prior to this permitting action the emission factor for VOC was based on source testing results from 1993. Source testing conducted in 2021 showed VOC emission rates to be substantially lower than both the 1993 source test results and the current DEQ published VOC emission factors. Due to the inconsistency in source test data for VOC, the source has elected to use DEQ's published emission factors for VOC as the basis of their VOC emissions. CO emissions are based on representative source tests and NCASI Technical Bulletin No. 1013, March 2013, 'A Comprehensive Compilation and Review of Wood-Fired Boiler Emissions,' table 5.1 and converted to lb/Mlb steam using 1.9MMBtu/Mlb steam. FHAP emissions are based off several sources including DEQ AQGP-010, 13.1.a: Wood Fuel Dutch Oven Emission Factors (10/2017), AP-42, Table 1.6-3 - Emission Factors for Speciated Organic Compounds, etc. converted to lb/Mlb steam using 1.9MMBtu/Mlb steam, AP-42, Table 1.6-4: Emission Factors for Trace Elements from Wood Residue Combustion converted to lb/Mlb steam using 1.9MMBtu/Mlb steam, and the average of representative source tests. Particulate matter emissions from the boilers are controlled by three identical Clarage multiclones. The fly ash collected by the multiclones is not re-injected in the boilers. Operating controls and instrumentation include an FD fan and automatic FD control, oxygen analyzer and one common steam flow meter.

11. EU-02: Plantsite Fugitives from Material Handling Activities

The facility generates fugitive emissions from the handling of wood residuals from the milling operations (hog fuel, wood chips and shavings, and sawdust). Material handling activities include loading residuals from the truck bins into trucks and the use of conveyors and waste bins. Prior to this renewal, PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions were based on now obsolete emission factors published in AP-42, 4<sup>th</sup> edition. PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions are now based on NCASI Special Report NO. 15-01, April 2015 'Estimating the Potential for PM Emissions from Wood and Bark Handling', Table 6.1.

12. EU-03: Milling Activities

The milling activities (wood cutting, planning, sanding, etc.) in the sawmill and lamination plant generate particulate matter in the form of wood dust and shavings. Particulate matter emissions are controlled by a combination of five (5) cyclones, one (1) target box, and three (3) baghouses. The facility has retained two (2) baghouses (#21 & #22) from the former plywood facility as stand-by/back-up baghouses in the event of malfunction of baghouses #5, #18 or #26. The particulate matter emission from these sources are based on DEQ AQ-EF02, Wood Products Emission Factors (08/2011) and DEQ AQ-EF03 PM<sub>10</sub> and PM<sub>2.5</sub> Fraction (08/2011). These sources are not expected to have any significant FHAP emissions. Prior to this permit renewal, the facility's cyclones and target box were grouped into one emission unit (EU-03) and the baghouses were grouped into another emission unit (EU-04). For clarity, this renewal combines all milling activities in the sawmill and lamination plant into a single emission unit (EU-03). The cyclones, target boxes, and baghouses are the pollution control devices associated with the milling activities in EU-03.

13. EU-05: VOCs Not Listed Elsewhere (Paints, inks, sealers, adhesives, etc.)  
The facility uses two (2) distinct resin adhesive systems (Lam Pres Face Adhesive and Lam Press Finger Joint Adhesive) to manufacture glu laminated beams which are a source of fugitive VOC and FHAP emissions. The VOC and FHAP emissions from the use of these products are based on the results of caul plate tests performed by the manufacturer of each resin adhesive system. The facility also uses miscellaneous paints, sealers, inks, putties, and adhesives which are a source of fugitive VOC and FHAP emissions. The VOC and FHAP emission from the use of these products are based on manufacturer-provided documentation (Safety Data Sheets, Product Data Sheets, etc.) and facility-tracked usage.
14. EU-08: Four (4) Continuous Dry Kilns and Five (5) Batch Dry Kilns  
The facility uses four (4) continuous and five (5) batch indirect steam-heated double track dry kilns to reduce the moisture content of green lumber including Douglas Fir and Hemlock. Lumber is dried at 170, 175, 180, 185, or 190 °F. The kilns are equipped with temperature monitors which alert facility staff of temperature excursions. The particulate matter emissions from these processes are based on DEQ AQGP-010, Section 13.3: Steam-Heat Kilns (10/2017). The VOC and FHAP emissions are based on DEQ AQ-EF09: DEQ HAP and VOC Emission Factors for Lumber Drying, 2021.
15. AIA-1: Aggregate Insignificant Activities – Gasoline Dispensing Facility (GDF)  
The facility's aggregate insignificant activities previously included fugitive emissions from unpaved roads. All roads at the facility are now paved and emissions from paved roads are considered Categorically Insignificant. The facility's aggregate insignificant activities now include a gasoline dispensing facility with a 4,000 gallon storage tank and an annual throughput of approximately 2,250 gallons which classifies it as a GDF 2 under OAR 340-244. Emissions from the GDF are controlled through submerged fill and work practices. The facility's GDF was installed in 1992 and the distance between the tip of the submerged fill pipe and the bottom of the storage tank is 4 inches. Prior to this permitting action, emissions from the facility's GDF had not been quantified.
16. AIA-2: Beam Wrap Saw  
The facility uses a saw to cut rolls of poly sheeting to size for wrapping finished laminated beams. The plastic dust generated during this process is collected by a small cyclone. Particulate matter emissions from this process are based on DEQ AQ-EF02 - Cyclone Med Efficiency.

#### **CATEGORICALLY INSIGNIFICANT EMISSIONS**

17. The facility has the following categorically insignificant activities on site:
  - Constituents of a chemical mixture present at less than one (1) percent by weight of any chemical or compound regulated under OAR chapter 340, divisions 218 and 220, and titles 12 through 51 or less than 0.1 percent by weight of any carcinogen listed in the U. S. Department of Health and Human Services' 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 brought on site for six (6) months or less for maintenance, construction or similar purposes, such as but not limited to generators, pumps, hot water pressure washers and space heaters, provided that any such equipment that performs the same function as the permanent equipment, must be operated within the source's existing PSEL;
  - Office activities;
  - Food service activities;
  - Janitorial 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;
  - 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;
  - Instrument air dryers and distribution;
  - Fire suppression;
  - 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 exclusively 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;
  - Health, safety, and emergency response activities;
  - Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems;
  - Non-contact steam condensate flash tanks;
  - Non-contact steam vents on condensate receivers, deaerators and similar equipment;
  - Boiler blowdown tanks;
  - Ash piles maintained in a wetted condition and associated handling systems and activities;
18. The facility uses abrasive grinding stones to routinely repair and maintain the sawmill's equipment during regularly scheduled equipment downtime. The grinding wheels are equipped with small cyclones which collect dust from the grinding operations. The emissions from this activity have not been quantified. This activity meets LRAPA's definition of 'routine maintenance' and is therefore considered a 'categorically insignificant' activity.

#### **EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING**

19. 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.

20. 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 processes and pollution control devices. It is assumed that as long as these processes and controls are properly operated, the emissions levels will be below the emissions limits specified in the permit.

#### Nuisance, Deposition and Other Emission Limitations

21. Under subsection 49-010(1), the permittee must not cause or allow air contaminants from any source subject to regulation by LRAPA to cause a nuisance. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.
22. Under section 32-055, the permittee must not cause or permit the emission of particulate matter which is larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.
23. Under subsection 32-090(1), the permittee must not discharge from any source whatsoever such quantities of air contaminants which cause injury or damage to any persons, the public, business or property; such determination is to be made by LRAPA. Compliance is demonstrated through documentation of all complaints received by the facility from the general public and following procedures to notify LRAPA of receipt of these complaints.

#### Emission Limitations and Monitoring

##### *Emission Unit EU-01: Wood-Fired Boilers*

24. The wood-fired boilers in Emission Unit EU-01 are subject to the visible emission limitations under subsection 32-010(3). No person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity. For wood-fired boilers installed, constructed or last modified prior to June 1, 1970, visible emissions may equal or exceed 20 percent opacity but may not equal or exceed 40 percent opacity during grate cleaning operations. Compliance is demonstrated through a visible emissions survey using EPA Method 22 or EPA Method 9 to be completed at least weekly for the wood-fired boilers in Emission Unit EU-01. If 4 consecutive weeks of EPA Method 22 or EPA Method 9 results are less than the 20 percent opacity limit, the monitoring frequency may be reduced to monthly. If 4 consecutive months of EPA Method 22 or EPA Method 9 results are less than the 20 percent opacity limit, the monitoring frequency may be reduced to quarterly. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
  - 24.a. The permittee must conduct grate cleaning of the boilers in accordance with the LRAPA-approved grate cleaning plan on file with LRAPA. Compliance with this requirement is demonstrated by maintaining boiler grate cleaning log.
25. The wood-fired boilers in Emission Unit EU-01 are subject to particulate emission limitations under subsection 32-020(1). For fuel burning equipment sources installed, constructed, or modified before June 1, 1970, except solid fuel burning devices that have been certified under OAR 340-262- 0500, the particulate matter emission limit is 0.15 grains per dry standard cubic foot. Compliance is demonstrated through source testing for total particulate matter once every 5 years.

26. The wood-fired boilers in Emission Unit EU-01 are subject to the process weight rate emission limitations under subsection 32-045(1) for any emission unit that has the potential to emit particulate matter. No person may cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in section 32-8010, for the process weight rate allocated to such process. Process weight is the total weight of all materials introduced into a piece of process equipment. Liquid and gaseous fuels and combustion air are not included in the total weight of all materials. Compliance is demonstrated through a visible emissions survey using EPA Method 22 or EPA Method 9 to be completed at least weekly for the wood-fired boilers in Emission Unit EU-01. If 4 consecutive weeks of EPA Method 22 or EPA Method 9 results are less than the 20 percent opacity limit, the monitoring frequency may be reduced to monthly. If 4 consecutive months of EPA Method 22 or EPA Method 9 results are less than the 20 percent opacity limit, the monitoring frequency may be reduced to quarterly. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
27. The wood-fired boilers in Emission Unit EU-01 are subject to the operation, maintenance, and work practice requirements under subsection 32-007(1). The following operation, maintenance and/or work practice controls have been established by permit condition:
- 27.a. The permittee must operate, maintain, and monitor the multiclones associated with Emission Unit EU-01 to ensure emission reduction from EU-01 is at the highest reasonable efficiency and effectiveness. Compliance is demonstrated by operation, maintenance, and calibration of monitoring devices to measure the pressure drop across each multiclone. If the pressure drop across a multiclone deviates from the range specified in the permit, the permittee must take corrective action to return the pressure drop to the specified operating range.
- 27.b. The permittee may only burn biomass in the wood-fired boilers in Emission Unit EU-01. Compliance is demonstrated by maintaining a boiler operating log which includes a record of any change in the type of biomass burned in each boiler
28. The wood-fired boilers in Emission Unit EU-01 are subject to the requirements for Typically Achievable Control Technology (TACT) under subsection 32-008(1). In order to meet TACT, the permittee must monitor combustion efficiency of the boilers by calibrating, maintaining, operating, and recording the output of a continuous monitoring system (CMS) for measuring the residual oxygen of each wood-fired boiler. If the residual oxygen level deviates from the ranges indicated in the permit, the permittee must take corrective action. Compliance is demonstrated by maintaining a boiler operating log which includes hourly residual oxygen levels, excursions of the residual oxygen operating ranges, and any corrective actions taken.
29. The permittee is required to conduct testing to verify the emission factors used to calculate NO<sub>x</sub> and CO emissions from the wood-fired boilers in Emissions Unit EU-01 within eighteen (18) months of permit issuance, and every five (5) years thereafter.

*Emission Unit EU-02: Plantsite Fugitives from Material Handling Activities*

30. The fugitive emissions related to Emission Unit EU-02 are subject to the general requirements for fugitive emissions under section 48-015. The facility must not have visible emissions that leave the property of a source for a period or periods totaling more than 18 seconds in a six (6) minute period. The facility must follow, but is not limited to, the list of reasonable precautions under paragraphs 48-015(1)(a)-(g). Compliance will be demonstrated through a survey of facility fugitive emissions using EPA Method 22 or EPA Method 9 to be completed at least once a quarter. Prior to this permitting action the facility was required to conduct facility fugitive emissions weekly. This frequency has been reduced to quarterly following the change in EU-02 PM emission factors and the subsequent decrease in PTE for EU-02. The permittee is required to take corrective action if any visible emissions are identified. If requested by LRAPA, the facility must develop a fugitive emission control plan.

*Emission Unit EU-03: Milling Activities*

31. Emission Unit EU-03 is subject to the visible emission limitations under subsection 32-010(3). For sources, other than wood-fired boilers, no person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity. Compliance is demonstrated through a survey of visible emissions from Emission Unit EU-03 using EPA Method 22 or EPA Method 9 to be completed at least quarterly. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
32. Emission Unit EU-03 is subject to particulate matter emission limitations under subsection 32-015(2). For sources installed, constructed, or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are not representative compliance source test results, the particulate matter emission limit is 0.14 grains per dry standard cubic foot. For sources installed, constructed, or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot. Compliance is demonstrated through a survey of visible emissions from Emission Unit EU-03 using EPA Method 22 or EPA Method 9 to be completed at least quarterly. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
33. Emission Unit EU-03 is subject to the process weight rate emission limitations under subsection 32-045(1) for any emission unit that has the potential to emit particulate matter. No person may cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in section 32-8010, for the process weight rate allocated to such process. Process weight is the total weight of all materials introduced into a piece of process equipment. Liquid and gaseous fuels and combustion air are not included in the total weight of all materials. Compliance is demonstrated through a survey of visible emissions from Emission Unit EU-03 using EPA Method 22 or EPA Method 9 to be completed at least quarterly. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
34. Emission Unit EU-03 is subject to the operation, maintenance, and work practice requirements under subsection 32-007(1). The following operation, maintenance and/or work practice controls have been established by permit condition:
  - 34.a. The permittee must exhaust the particulate matter emissions from Emissions Unit 03 (Milling Activities) to a cyclone, target box, and/or baghouse whenever the associated milling equipment in this process is operating. The permittee must operate, maintain, and monitor all pollution control devices associated with Emission Unit EU-03 to ensure emission reduction is at the highest reasonable efficiency and effectiveness. Compliance is demonstrated by the following:
    - 34.a.i. Operation, maintenance, and calibration of monitoring devices to measure the pressure drop across each baghouse. If the pressure drop across a baghouse deviates from the range specified in the permit, the permittee must take corrective action to return the pressure drop to the specified operating range.

*Emission Unit EU-05: VOCs (not listed elsewhere)*

35. Emission Unit EU-05 is subject to the operation, maintenance, and work practice requirements under subsection 32-007(1). The following operation, maintenance and/or work practice controls have been established by permit condition:
  - 35.a. The permittee must only use the resin adhesive systems in the production of glu laminated lumber for which methanol and total VOC emissions have been quantified and do not exceed the values listed in the permit. Compliance is demonstrated by maintaining current documentation for each resin adhesive system used at the facility which demonstrates the methanol and total VOC emissions resulting from use of the material.
  - 35.b. The permittee must not allow VOC and HAP-containing materials to be handled in a manner that would result in unnecessary vapor releases to the atmosphere for extended periods of time.

Measures to be taken include storing VOC and HAP-containing materials according to manufacturer's recommendations, keeping containers closed to the extent practicable, minimizing spills, and cleaning spills as expeditiously as practicable. Compliance is demonstrated through maintaining records of the standard operating procedures related to the storage, handling, and cleanup of VOC and HAP-containing materials.

*Emission Unit EU-08: Dry Kilns*

36. The dry kilns in Emission Unit EU-08 are subject to the visible emission limitations under subsection 32-010(3). For sources, other than wood-fired boilers, no person may emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity. Compliance is demonstrated through a survey of visible emissions using EPA Method 22 or EPA Method 9 to be completed at least quarterly for Emission Unit EU-08. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
37. The dry kilns in Emission Unit EU-08 are subject to particulate matter emission limitations under subsection 32-015(2). For sources installed, constructed, or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are not representative compliance source test results, the particulate matter emission limit is 0.14 grains per dry standard cubic foot. For sources installed, constructed, or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot. Compliance is demonstrated through a survey of visible emissions using EPA Method 22 or EPA Method 9 to be completed at least quarterly for Emission Unit EU-08. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
38. The dry kilns in Emission Unit EU-08 are subject to the process weight rate emission limitations under subsection 32-045(1) for any emission unit that has the potential to emit particulate matter. No person may cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in section 32-8010, for the process weight rate allocated to such process. Process weight is the total weight of all materials introduced into a piece of process equipment. Liquid and gaseous fuels and combustion air are not included in the total weight of all materials. Compliance is demonstrated through a survey of visible emissions using EPA Method 22 or EPA Method 9 to be completed at least quarterly for Emission Unit EU-08. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.
39. The dry kilns in Emission Unit EU-08 are subject to plant site emission compliance monitoring under subsection 42-0080(1). The permittee must monitor pollutant regulated emissions or other parameters that are sufficient to produce the records necessary for demonstrating compliance with the PSEL. Because VOC and FHAP emission rates from lumber drying increase significantly as the drying temperature increases, the permittee must operate each kiln below the maximum temperature specified in the permit. If the kiln temperature exceeds the maximum temperature specified in the permit, the permittee must take corrective action. Compliance is demonstrated through a survey of visible emissions using EPA Method 22 or EPA Method 9 to be completed at least quarterly for Emission Unit EU-08. The permittee is required to take corrective action if any visible emissions are identified and contact LRAPA or conduct an EPA Method 9 test if the visible emissions cannot be eliminated.

*Emission Unit AIA-1: Gasoline Dispensing Facility*

40. The GDF is subject to the requirements under OAR 340-244-0231 through OAR 340-244-0252. As defined under this regulation, the GDF is considered an existing GDF. The facility is regulated as a GDF 2 because the gasoline storage tank capacity is 250 gallons or more, and the annual throughput of gasoline is less than 120,000 gallons. Because the GDF is considered an existing GDF, the GDF is subject to work practice and submerged fill requirements.

41. The facility is not subject to LRAPA section 33-060, *Prohibited Practices and Control of Special Classes of Industry – Board Products Industry* because the facility does not manufacture hardboard, particleboard, plywood, or veneer products.

Typically Achievable Control Technology (TACT)

42. Subsection 32-008(1) requires an existing unit at a facility prior to January 1, 1994, to meet TACT if the emission unit meets the following criteria: The emission unit is not already subject to emission standards for the regulated pollutant under title 30, title 33, title 38, or title 46 at the time TACT is required; the source is required to have a permit; the emission unit has emissions of criteria pollutants equal to or greater than five (5) tons per year of particulate or ten (10) tons per year of any gaseous pollutant; and LRAPA determines that air pollution control devices and emission reduction processes in use for the emissions do not represent TACT and that further emission control is necessary to address documented nuisance conditions, address an increase in emissions, ensure that the source is in compliance with other applicable requirements, or to protect public health or welfare or the environment.
- 42.a. The following emission units are not subject to TACT because they do not have emissions equal to or greater than five (5) tons per year of particulate or ten (10) tons per year of any gaseous pollutant: Emission Unit AIA-1, Gasoline Dispensing Facility.
- 42.b. The wood-fired boilers in emission Unit EU-01 are considered existing emission units under section 32-008 and are subject to TACT because potential emissions of particulate matter are equal to or greater than five (5) tons per year and potential emissions of CO, NO<sub>x</sub>, and VOCs are each greater than ten (10) tons per year. While LRAPA has not performed a formal TACT determination for this emission unit, LRAPA has determined that combustion efficiency monitoring, biennial tune-ups (as required by 40 CFR part 63 subpart JJJJJ), and the use of multiclones for particulate matter control likely meet TACT for the wood-fired boilers.
43. Subsection 32-008(2) requires new units installed or existing emission units modified on or after January 1, 1994, meet TACT if the emission unit meets the following criteria: The emission unit is not subject to Major NSR or Type A State NSR in title 38, and applicable NSPS in title 46, or any other standard applicable to only new or modified sources in title 30, title 33, title 39, or title 46 for the regulated pollutant; the source is required to have a permit; if new, the emission unit has emissions of any criteria pollutant equal to or greater than one (1) ton per year of any criteria pollutant; if modified, the emission unit would have an increase in emissions of any criteria pollutant equal to or greater than one (1) ton per year; and LRAPA determines that the proposed air pollution control devices and emission reduction processes do not represent TACT.
- 43.a. Emission Unit EU-02 is considered a modified emission unit under section 23-008 and is subject to TACT because potential emissions of particulate matter are greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for particulate matter from this emission unit, LRAPA has determined that the list of reasonable precautions under paragraphs 48-015(1)(a)-(g) likely represents TACT.
- 43.b. Emission Unit EU-03 consists of a number of existing, new, and modified emission units merged together for convenience of regulation. The individual emission units included under the Milling Activities category will not have emissions of any criteria pollutant equal to or greater than one (1) ton per year and are not subject to TACT.
- 43.c. Emission Unit EU-05 consists of a number of existing, new, and modified emission units merged together for convenience of regulation. The majority of the individual processes included under the VOC category will not have emissions of any criteria pollutant equal to or greater than one (1) ton per year and are not subject to TACT. The use of Epoxy Part AU-100 MB and the Lam Press Finger Joint Adhesive will each have emissions of VOC greater than one (1) ton per year and are subject to TACT. While LRAPA has not performed a formal TACT determination for VOC from these emission units, LRAPA has determined that the operation and work practice requirements discussed in Item 35 likely represent TACT.

44. The dry kilns in Emission Unit EU-08 are considered modified emission units under section 32-008 and are subject to TACT because potential emissions of particulate matter and VOC are each greater than one (1) ton per year. While LRAPA has not performed a formal TACT determination for VOC from these emission units, EPA and LRAPA have determined that there are no control technologies currently used in practice or economically feasible for these dry kilns. TACT is considered to be current operations.

## **EMISSION LIMITS FOR INSIGNIFICANT ACTIVITIES**

45. As identified earlier in this Review Report, this facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant activities, 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 and particulate matter. 40 CFR 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 includes limited requirements for categorically insignificant activities and aggregate insignificant activities.
46. The facility operates a gasoline dispensing facility (GDF) with a 4,000 gallon storage tank and an annual throughput of approximately 2,250 gallons. The GDF was installed in 1992 and is subject to 40 CFR part 63 subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, as discussed in Items 56 - 57. The GDF is also subject to the requirements under OAR 340-244-0231 through OAR 340-244-0252, as discussed in Item 40.

## **FEDERAL REQUIREMENTS**

### **Chemical Accident Prevention Provisions**

47. The Title V permit includes standard language related to 40 CFR part 68 – Chemical Accident Prevention Provisions. Should the material storage rate at this facility subject this facility to 40 CFR part 68, the facility must satisfy all the applicable risk management requirements, including the development of a risk management plan.

### **Stratospheric Ozon-Depleting Substances**

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

### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

49. A facility that has obtained federally enforceable permit limits to restrict FHAP emissions below the major source thresholds of 10 tons per year of an individual FHAP and 25 tons per year of the aggregate of all

FHAP can be classified as an area source. On September 8, 2011 the facility submitted an application for a significant permit modification to establish federally enforceable synthetic minor FHAP limits of nine (9) tons per year of an individual FHAP and 24 tons per year of the aggregate of all FHAP. This synthetic minor limit was included in the Title V operating permit issued on April 2, 2013.

*40 CFR part 63 subpart JJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*

50. The facility is a minor source of FHAPs. As such, the wood-fired boilers in Emission Unit EU-01 are subject to 40 CFR part 63 subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The three identical wood fired boilers are considered existing boilers under 40 CFR 63.11194(b) because the boilers were installed on or before June 4<sup>th</sup>, 2010.
51. The permittee submitted an Initial Notification for the purposes of Subpart JJJJJ on August 23, 2011.
52. The permittee submitted the Notification of Compliance Status for the “initial” boiler tune-up in accordance with 40 CFR 63.11225(a)(4)(ii) on April 14, 2014.
53. The permittee conducted a one-time energy assessment of the boiler and its energy use systems on February 5, 2014 in accordance with 40 CFR 63.11214(c), 63.11237 and Table 2 to subpart JJJJJ of part 63.
54. The permittee submitted the Notification of Compliance Status for the boiler energy assessment in accordance with 40 CFR 63.11225(a)(4)(iii) on April 14, 2014.
55. The 40 CFR part 63 subpart JJJJJ requirements that are applicable to Emission Unit EU-01 are identified in the following table:

<b>40 CFR part 63 subpart JJJJJ Citation</b>	<b>Description</b>	<b>Applicable to Source (Yes/No)</b>	<b>Comments</b>	<b>Permit Condition</b>
63.11193	Applicability	Yes	None.	NA
63.11194	Affected sources	Yes	None.	NA
63.11195	Sources unaffected	No	None.	NA
63.11196	Compliance dates	Yes	None.	NA
63.11200	Subcategories of boilers	Yes	None.	NA
63.11201	Standards	Yes	None.	NA
63.11205	General requirements	Yes	None.	27
63.11210	Initial compliance with the compliance options, operating requirements, and work practice requirements	No	None.	NA
63.11211	Performance tests or other initial compliance demonstrations	No	None.	NA
63.11212	Conducting performance tests and establishing operating requirements	No	None.	NA
63.11213	Fuel analyses and procedures for the performance tests	No	None.	NA
63.11214	Initial compliance with the work practice standard, emission reduction measures, and management practice	No	None.	NA

<b>40 CFR part 63 subpart JJJJJ Citation</b>	<b>Description</b>	<b>Applicable to Source (Yes/No)</b>	<b>Comments</b>	<b>Permit Condition</b>
63.11220	Subsequent performance tests or fuel analyses	No	None.	NA
63.11221	Minimum amount of monitoring data	No	None.	NA
63.11222	Demonstrating continuous compliance with the emission limits	No	None.	NA
63.11223	Demonstrating continuous compliance with the work practice and management practice standards	Yes	Biennial Tune-up	28
63.11224	Monitoring installation, operation, and maintenance requirements	No	None.	NA
63.11225	Notification, reporting, and recordkeeping requirements	Yes	None.	29 & 30
63.11226	Reserved	No	None.	NA
63.11235	General Provision applicability	Yes	None.	31
63.11236	Implementation and enforcement	No	None.	NA
63.11237	Definitions	Yes	None.	NA

*40 CFR part 63 subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities*

56. The facility is a minor source of FHAPs. As such, Emission Unit AIA-1 – Gasoline Dispensing Facility (GDF) is subject to 40 CFR part 63 subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. The GDF is considered an existing source under 40 CFR 63.11112(d) because it is not new or reconstructed as defined in 40 CFR 63.11112(b)&(c).
57. The 40 CFR part 63 subpart CCCCCC requirements that are applicable to the existing GDF at the facility are identified in the following table:

<b>40 CFR Part 63, Subpart CCCCCC Citation</b>	<b>Description</b>	<b>Applicable to Source (Yes/No)</b>	<b>Comments</b>	<b>Permit Condition</b>
63.11110	Purpose	Yes	None	NA
63.11111	Applicability	Yes	The facility is a GDF and has a monthly throughput of less 10,000 gallons per month.	74 -80
63.11112	Emission sources covered	Yes	None	81
63.11113	Compliance dates	Yes	The compliance date for an existing source is no later than January 10, 2008.	NA
63.11115	General duties	Yes	None	82 & 83
63.11116	Requirements: <10,000 gallons per month	Yes	None	84 - 87
63.11117	Requirements: ≥ 10,000 gallons per month	No	None	NA



63.11118	Requirements: $\geq 100,000$ gallons per month	No	None	NA
----------	--	----	------	----

*40 CFR part 63 subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*

58. Prior to 2013 the facility was a major source of FHAPs and was subject to 40 CFR part 63 subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products. The facility obtained federally enforceable permit limits to restrict FHAP emissions below the major source thresholds with the Title V permit renewal issued on April 2, 2013 and was reclassified as an area source of FHAPs. The facility remained subject to 40 CFR part 63 subpart DDDD in accordance with EPA's "Once in, Always In" policy for the National Emission Standards for Hazardous Air Pollutants. This policy was withdrawn in 2018. Per 40 CFR 63.1(c)(6), A major source may become an area source at any time upon reducing its emissions of and potential to emit hazardous air pollutants to below the major source thresholds. A major source reclassifying to area source status remains subject to any applicable major source requirements established under this part until the reclassification becomes effective. After the reclassification becomes effective, the source is subject to any applicable area source requirements. After September 10, 2024, affected sources subject to the subparts listed in 40 CFR 63.1(c)(6)(iii) on September 10, 2024, must remain subject to those subparts, and any modifications thereafter, even if the source becomes an area source by reducing both its actual emissions and potential to emit hazardous air pollutants to below major source thresholds. The facility is therefore no longer subject to 40 CFR part 63 subpart DDDD because the facility was reclassified as a minor source of FHAPs prior to September 10<sup>th</sup>, 2024.

*40 CFR part 63 subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Institutional, Commercial, and Industrial Boilers and Process Heaters*

59. The facility is a minor source of FHAPs and as such is not subject to 40 CFR part 63 subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Institutional, Commercial, and Industrial Boilers and Process Heaters. The compliance date for existing boilers/process heaters under 40 CFR part 63 subpart DDDDD was January 31, 2016. The facility obtained federally enforceable permit limits to restrict FHAP emissions below the major source thresholds with the Title V permit renewal issued on April 2, 2013 and was therefore considered an area source of FHAPs for purposes of 40 CFR part 63 subpart DDDDD.

*40 CFR part 63 subpart QQQQ – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products*

60. The facility's is not subject to 40 CFR part 63 subpart QQQQ – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products because the wood building products produced by the facility do not meet the criteria listed in 40 CFR 63.4681(a).

### **New Source Performance Standards (NSPS)**

*40 CFR part 60 subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

61. Any steam generating unit as this term is defined under 40 CFR 60.41c that commences construction, modification, or reconstruction after June 9, 1989, and that has a maximum design heat input capacity of greater than or equal to 2.9 MW (10 MMBtu per hour) and no more than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) is subject to regulation under 40 CFR part 60 subpart Dc. Boiler. The three wood-fired boilers in Emission Unit EU-01 were constructed in 1939 and have not been modified or reconstructed since and thus are not subject to 40 CFR part 60 subpart Dc.

### **Toxics Release Inventory (TRI)**

62. The Toxics Release Inventory (TRI) is a federal program that tracks the management of certain toxic chemicals that may pose a threat to human health and the environment, over which LRAPA has no regulatory authority. It is a resource for learning about toxic chemical releases and pollution prevention activities reported by certain industrial facilities. Section 313 of the Emergency Planning and Community

Right-to-Know Act (EPCRA) created the TRI Program. In general, chemicals covered by the TRI Program are those that cause:

- Cancer or other chronic human health effects;
- Significant adverse acute human health effects;
- Significant adverse environmental effects.

There are currently over 650 chemicals covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual TRI reports on each chemical. NOTE: The TRI Program is a federal program over which LRAPA has no regulatory authority. LRAPA does not guarantee the accuracy of any information copied from EPA's TRI website.

In order to report emissions to the TRI program, a facility must operate under a reportable NAICS code, meet a minimum employee threshold, and manufacture, process, or otherwise use chemicals in excess of the applicable reporting threshold for the chemical. The facility has reported the following emissions since the last permit issuance in 2019.

Reporting Year	Pollutant	Cas No.	Emissions (lbs)	Applicable Reporting Threshold (lbs)
2019	Phenol	108-95-2	22.0	10,000
2020	Phenol	108-95-2	22.0	10,000
2021	Phenol	108-95-2	33.0	10,000
2022	Phenol	108-95-2	26.0	10,000
2023	Phenol	108-95-2	20.0	10,000

## COMPLIANCE ASSURANCE MONITORING

63. Title 40, part 64 of the Code of Federal Regulations (CFR) contains Compliance Assurance Monitoring (CAM) requirements. These regulations are also codified in LRAPA 35-0200 through 35-0280. CAM requirements apply to any Pollutant Specific Emissions Unit (PSEU) at a part 70 source that meets the following criteria:
- 63.a. The unit is subject to an emission limitation or standard for a regulated air pollutant;
  - 63.b. The unit uses a control device to achieve compliance with that emission limitation or standard;
  - 63.c. The unit, by itself, has potential pre-control emissions of the regulated air pollutant that would make it a major source (i.e. greater than 100 tons per year for criteria pollutants; greater than 10 tons per year for individual Federal HAPs); and
  - 63.d. The exemptions in 40 CFR 64.2(b) and LRAPA 35-0200(2) do not apply. The exemptions include
    - 63.d.i. Emission limitations or standards proposed by EPA after November 15, 1990 under section 111 (NSPS) or section 112 (NESHAPs);
    - 63.d.ii. Stratospheric ozone protection requirements under Title VI;
    - 63.d.iii. Acid Rain Program requirements;
    - 63.d.iv. Emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by US EPA;
    - 63.d.v. An emissions cap that meets the requirements in 40 CFR 70.4(b)(12);
    - 63.d.vi. Emission limitations or standards for which a part 70 permit specifies a continuous compliance demonstration method, as defined in 40 CFR 64.1 and LRAPA title 12; and
    - 63.d.vii. Municipally-owned backup utility emission units meeting the requirements under 40 CFR 64.2(b)(2).
64. The following table evaluates CAM applicability for all emission units at the facility.

<b>Emission Unit</b>	<b>Regulated Pollutant</b>	<b>Uses a Control Device for a Regulated Pollutant</b>	<b>Uncontrolled Potential Emissions Exceed Major Source Threshold</b>	<b>Is there an Emission Limitation or Standard for this Pollutant</b>	<b>Subject to CAM for the Pollutant</b>	<b>Monitoring Frequency</b>
EU-01 Boiler #1	PM	Yes	No	Yes	No	NA
EU-01 Boiler #1	PM <sub>10</sub>	Yes	No	Yes	No	NA
EU-01 Boiler #1	PM <sub>2.5</sub>	Yes	No	Yes	No	NA
EU-01 Boiler #1	NO <sub>x</sub>	No	Yes	No	No	NA
EU-01 Boiler #1	SO <sub>2</sub>	No	No	No	No	NA
EU-01 Boiler #1	CO	No	Yes	No	No	NA
EU-01 Boiler #1	VOC	No	No	No	No	NA
EU-01 Boiler #1	HAP	No	No	No	No	NA
EU-01 Boiler #2	PM	Yes	No	Yes	No	NA
EU-01 Boiler #2	PM <sub>10</sub>	Yes	No	Yes	No	NA
EU-01 Boiler #2	PM <sub>2.5</sub>	Yes	No	Yes	No	NA
EU-01 Boiler #2	NO <sub>x</sub>	No	Yes	No	No	NA
EU-01 Boiler #2	SO <sub>2</sub>	No	No	No	No	NA
EU-01 Boiler #2	CO	No	Yes	No	No	NA
EU-01 Boiler #2	VOC	No	No	No	No	NA
EU-01 Boiler #2	HAP	No	No	No	No	NA
EU-01 Boiler #3	PM	Yes	No	Yes	No	NA
EU-01 Boiler #3	PM <sub>10</sub>	Yes	No	Yes	No	NA
EU-01 Boiler #3	PM <sub>2.5</sub>	Yes	No	Yes	No	NA
EU-01 Boiler #3	NO <sub>x</sub>	No	Yes	No	No	NA
EU-01 Boiler #3	SO <sub>2</sub>	No	No	No	No	NA
EU-01 Boiler #3	CO	No	Yes	No	No	NA
EU-01 Boiler #3	VOC	No	No	No	No	NA
EU-01 Boiler #3	HAP	No	No	No	No	NA
EU-02	PM	No	No	Yes	No	NA

Emission Unit	Regulated Pollutant	Uses a Control Device for a Regulated Pollutant	Uncontrolled Potential Emissions Exceed Major Source Threshold	Is there an Emission Limitation or Standard for this Pollutant	Subject to CAM for the Pollutant	Monitoring Frequency
EU-02	PM <sub>10</sub>	No	No	Yes	No	NA
EU-02	PM <sub>2.5</sub>	No	No	No	No	NA
EU-03	PM	Yes	No	Yes	No	NA
EU-03	PM <sub>10</sub>	Yes	No	Yes	No	NA
EU-03	PM <sub>2.5</sub>	Yes	No	No	No	NA
EU-05	VOC	No	No	No	No	NA
EU-05	HAP	No	No	No	No	NA
EU-08 Kilns A - I	PM	No	No	Yes	No	NA
EU-08 Kilns A – I	PM <sub>10</sub>	No	No	Yes	No	NA
EU-08 Kilns A – I	PM <sub>2.5</sub>	No	No	No	No	NA
EU-08 Kilns A – I	VOC	No	Yes	No	No	NA
EU-08 Kilns A - I	HAP	No	Yes	No	No	NA
AIA-1 GDF	VOC	No	No	No	No	NA
AIA-1 GDF	HAP	No	No	No	No	NA
AIA-2 Beam Wrap Saw	PM	Yes	No	Yes	No	No
AIA-2 Beam Wrap Saw	PM <sub>10</sub>	Yes	No	Yes	No	No
AIA-2 Beam Wrap Saw	PM <sub>2.5</sub>	Yes	No	Yes	No	No

65. In addition to not being subject to CAM based on the criteria listed in the table above, Boilers #1 – #3 in EU-01 are not subject to CAM for FHAPs because this emission unit is subject to emission limitations or standards proposed by the EPA after November 15, 1990 under section 12 – 40 CFR part 63 subpart JJJJJ (6J) – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.
66. In addition to not being subject to CAM based on the criteria listed in the table above, EU-AIA (Gasoline Dispensing Facility) is not subject to CAM for FHAPs because this emission unit is subject to emission limitations or standards proposed by the EPA after November 15, 1990 under section 12 – 40 CFR part 63 subpart CCCCC (6C) – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

#### PLANT SITE EMISSION LIMITS

67. Under paragraph 42-0055(3), unassigned emissions are reduced to not more than the SER at each permit renewal following July 1, 2010. The netting basis is reduced by the amount that unassigned emissions are reduced. Under paragraph 42-0055(5), each time the permit is renewed, the unassigned emission will be established again and reduced upon the following permit renewal to no more than the SER for each regulated pollutant. Provided below is a summary of the adjustments made to the baseline emissions rate, netting basis, unassigned emissions. The Netting Basis for PM, PM<sub>10</sub>, and VOC was adjusted to reflect

changes made to the Baseline Emission Rate. This value was subsequently used to calculate the Proposed Netting Basis. The calculated Unassigned Emissions for PM<sub>10</sub> and PM<sub>2.5</sub> exceeded the SER and were reduced to no more than the SER for these pollutants.

Pollutant	Previous Baseline Emission Rate (TPY)	Adjusted Baseline Emission Rate (TPY)	Previous Netting Basis (TPY)	Adjusted Netting Basis (TPY)	Proposed Netting Basis (TPY)	Previous Unassigned Emissions (TPY)	Proposed Unassigned Emissions (TPY)	SER (TPY)
PM	243	203	244	203	137	66	17	25
PM <sub>10</sub>	243	203	244	203	130	73	15	15
PM <sub>2.5</sub>	NA	NA	142	-	123	19	10	10
CO	1042	1042	400	-	274	126	0	100
NO <sub>x</sub>	183	183	183	-	181	2	0	40
SO <sub>2</sub>	6	6	6	-	6	0	1	40
VOC	197	189	197	189	189	0	0	40
GHG (CO <sub>2</sub> e)	81740	81740	81740	-	81740	0	0	75,000

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

Pollutant	Baseline Emission Rate (TPY)	Netting Basis		Plant Site Emission Limit (PSEL)		PTE (TPY)	SER (TPY)
		Previous (TPY)	Proposed (TPY)	Previous PSEL (TPY)	Proposed PSEL (TPY)		
PM	203	244	137	178	120	120	25
PM <sub>10</sub>	203	244	130	171	113	113	15
PM <sub>2.5</sub>	NA	142	123	123	94	94	10
CO	1042	400	274	274	274	274	100
NO <sub>x</sub>	183	183	181	181	181	181	40
SO <sub>2</sub>	6	6	6	39	5.0	5	40
VOC	189	197	189	230	210	210	40
GHG(CO <sub>2</sub> e)	81740	81740	81740	81740	144,110	144,110	75,000

69. The baseline emission rates were established based upon the following:

- 69.a. The baseline emission rates for CO, NO<sub>x</sub>, SO<sub>2</sub>, and GHG were determined in previous permitting actions. There are no changes to these emission rates as part of this permitting action.
- 69.b. A baseline emission rate is not required for PM<sub>2.5</sub> in accordance with subsection 42-0048(3).
- 69.c. The baseline emission rates for PM and PM<sub>10</sub> were adjusted due to changes in emission factors for EU-02 (plantsite fugitives from material handling). The previous emission factors were published in AP-42's 4th edition, which is now obsolete. More accurate and reliable emission factors were made available through National Council for Air and Stream Improvement (NCASI) in 2015 as discussed in Item 11.
- 69.d. The baseline emission rate for VOC was adjusted to reflect the following emission factor changes:
  - 69.d.i. EU-01 (boilers) VOC emission factor was changed from 0.19 lb/Mlb steam to 0.13 lb/Mlb steam. The average of all representative VOC source tests results in an EF of 0.08 lb/Mlb steam, however the source has elected to use the more conservative DEQ emission factor of 0.13 lb/Mlb steam.

69.d.ii. EU-08 (kilns) VOC emission factors were updated to reflect more accurate and reliable emission factors published by DEQ in 2021.

70. The netting basis was established based upon the following:

- 70.a. The proposed netting basis for PM<sub>2.5</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, and GHG were determined by subtracting the facility's previous unassigned emissions from the previous netting basis, as applicable.
- 70.b. The proposed netting basis for PM, PM<sub>10</sub>, and VOC were determined by subtracting the facility's previous unassigned emissions from the adjusted baseline emission rates, as applicable.

71. The PSELs are established based upon the following:

- 71.a. The PSEL for PM, PM<sub>10</sub>, and PM<sub>2.5</sub> were reduced based upon changes to emission factors for EU-02.
- 71.b. The PSEL for CO and NO<sub>x</sub> remain unchanged.
- 71.c. The PSEL for SO<sub>2</sub> was reset to the potential emission rate from the significant emission units as required by subsection 42-0041(3). The previous PSEL for SO<sub>2</sub> was based on a Generic PSEL that is no longer allowed by rule.
- 71.d. The PSEL for VOC was reduced to 210 tons per year based upon changes to emission factors for EU-01 and EU-08 as discussed in Item 69.d.
- 71.e. The previous PSEL for GHG was incorrectly set equal to the base line emission rate, which was based on the facility's operational capacity in 2010. The current proposed PSEL for GHG has increased to reflect the facility's current operational capacity and is equal to the summation of anthropogenic emissions (1,899 tons CO<sub>2</sub>e) and biogenic emissions (142,211 tons CO<sub>2</sub>e).

## SIGNIFICANT EMISSION RATES

72. The proposed PSEL for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC are equal to or less than the previously established PSEL. The proposed PSEL for GHG has increased as discussed in Item 71.e. An analysis of the proposed PSEL increases over the Netting Basis are shown in the following table:

Pollutant	Proposed PSEL (TPY)	PSEL Increase Over Netting Basis (TPY)	PSEL Increase Due to Utilizing Existing Baseline Period Capacity (TPY)	PSEL Increase Due to Modification (TPY)	SER (TPY)
PM	120	0	0	0	25
PM <sub>10</sub>	113	0	0	0	15
PM <sub>2.5</sub>	94	0	0	0	10
CO	274	0	0	0	100
NO <sub>x</sub>	181	0	0	0	40
SO <sub>2</sub>	5	0	0	0	40
VOC	210	22	0	0	40
GHG (CO <sub>2</sub> e)	144,110	62,370	0	62,370	75,000

73. The VOC PSEL increase over the netting basis is due to adjustments made to the VOC baseline emission rate, as discussed in item 69.d. The proposed VOC PSEL is less than the previously established PSEL.

## UNASSIGNED EMISSIONS AND EMISSION REDUCTION CREDITS

74. The facility has unassigned emissions as shown in the table below. Unassigned emissions are equal to the netting basis minus the source's current PTE, minus any banked emission reduction credits. In accordance with LRAPA 42-0055, unassigned emissions greater than the SER will be reduced to less than the applicable SER at the next Title V Operating Permit renewal if the unassigned emissions are not used for

internal netting prior to that date. The facility's unassigned emissions for PM<sub>10</sub> and PM<sub>2.5</sub> have been reduced to the applicable SER.

Pollutant	Proposed Netting Basis (TPY)	PTE (TPY)	Unassigned Emissions (TPY)	Emission Reduction Credits (TPY)	SER (TPY)
PM	137	120	17	0	25
PM <sub>10</sub>	130	113	15	0	15
PM <sub>2.5</sub>	123	94	10	0	10
CO	274	274	0	0	100
NO <sub>x</sub>	181	181	0	0	40
SO <sub>2</sub>	6	5	1	0	40
VOC	189	210	0	0	40
GHGs (CO <sub>2</sub> e)	81,740	144,110	0	0	75,000

## HAZARDOUS AIR POLLUTANTS/TOXIC AIR CONTAMINANTS

75. Under the Cleaner Air Oregon program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. The facility 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 2023 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in rule. All FHAPs are on the list of approximately 600 toxic air contaminants. The FHAPs and toxic air contaminants listed below are based upon source testing and/or standard emission factors for the types of emission units at this facility. 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.
76. The facility has obtained federally enforceable synthetic minor FHAP limits of nine (9) tons per year of an individual FHAP and twenty-four (24) tons per year of the aggregate of all FHAP, as discussed in Item 6.
77. The table below represents the potential emissions of FHAP from the facility, excluding potential emissions from Categorically Insignificant Activities. The highest single FHAP emitted by the facility is methanol.

CAS/DEQ Number	Pollutant	PTE (TPY)	2023 Actual Emissions (TPY)
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	5.7E-08	2.2E-08
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	4.3E-05	1.7E-05
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.6E-07	6.1E-08
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1.3E-06	5.1E-07
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1.8E-07	7.1E-08
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1.0E-03	4.1E-04
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	2.7E-07	1.1E-07
40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	9.8E-07	3.8E-07
78-87-5	1,2-Dichloropropane	0.02	8.4E-03
540-84-1	2,2,4-Trimethylpentane	1.3E-04	1.3E-04
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	5.9E-08	2.3E-08
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	5.6E-09	2.2E-09
88-06-2	2,4,6-Trichlorophenol	1.4E-05	5.6E-06

CAS/DEQ Number	Pollutant	PTE (TPY)	2023 Actual Emissions (TPY)
51-28-5	2,4-Dinitrophenol	1.2E-04	4.6E-05
91-57-6	2-Methyl naphthalene	1.0E-04	4.1E-05
100-02-7	4-Nitrophenol	7.2E-05	2.8E-05
83-32-9	Acenaphthene	5.9E-04	2.3E-04
208-96-8	Acenaphthylene	3.3E-03	1.3E-03
75-07-0	Acetaldehyde	9.52*	3.77
98-86-2	Acetophenone	2.1E-06	8.1E-07
107-02-8	Acrolein	2.51	0.86
120-12-7	Anthracene	2.0E-03	7.6E-04
7440-36-0	Antimony	3.4E-03	1.3E-03
7440-38-2	Arsenic	0.01	4.0E-03
56-55-3	Benz[a]anthracene	4.2E-05	1.7E-05
71-43-2	Benzene	0.09	0.04
50-32-8	Benzo[a]pyrene	1.69E-03	6.6E-04
205-99-2	Benzo[b]fluoranthene	6.5E-05	2.5E-05
192-97-2	Benzo[e]pyrene	1.7E-06	6.6E-07
191-24-2	Benzo[g,h,i]perylene	6.1E-05	2.4E-05
205-82-3	Benzo[j]fluoranthene	1.0 E-4	2.49E-05
207-08-9	Benzo[k]fluoranthene	2.3E-05	9.1E-06
7440-41-7	Beryllium	3.1E-05	1.2E-05
117-81-7	Bis(2-ethylhexyl) phthalate	3.1E-05	1.2E-05
80-05-7	bisphenol A	0.08	0.08
74-83-9	Bromomethane	9.8E-03	3.8E-03
7440-43-9	Cadmium	2.4E-03	9.5E-04
86-74-8	Carbazole	1.2E-03	4.6E-04
56-23-5	Carbon tetrachloride	0.03	0.01
7782-50-5	Chlorine	0.51	0.20
108-90-7	Chlorobenzene	0.02	8.4E-03
67-66-3	Chloroform	0.02	7.1E-03
18540-29-9	Chromium VI	2.3E-03	8.9E-04
218-01-9	Chrysene	2.5E-05	9.7E-06
7440-48-4	Cobalt	4.5E-04	1.8E-04
53-70-3	Dibenz[a,h]anthracene	5.9E-06	2.3E-06
84-74-2	Dibutyl phthalate	0.02	5.3E-03
100-41-4	Ethyl Benzene	0.02	0.01
107-06-2	Ethylene dichloride	0.02	7.4E-03
206-44-0	Fluoranthene	1.0E-03	4.1E-04
86-73-7	Fluorene	2.2E-03	8.6E-04
50-00-0	Formaldehyde	1.38	1.85
110-54-3	Hexane	0.23	0.09



CAS/DEQ Number	Pollutant	PTE (TPY)	2023 Actual Emissions (TPY)
7647-01-0	Hydrochloric acid	5.71	2.11
7664-39-3	Hydrogen fluoride	0.08	0.03
193-39-5	Indeno[1,2,3-cd]pyrene	5.7E-05	2.2E-05
7439-92-1	Lead and compounds	0.03	0.01
7439-96-5	Manganese	0.20	0.08
7439-97-6	Mercury	1.0E-03	4.1E-04
67-56-1	Methanol	13.97*	6.91
74-87-3	Methyl chloride	0.01	5.8E-03
71-55-6	Methyl chloroform	0.02	7.9E-03
75-09-2	Methylene chloride	0.19	0.07
108-38-3	m-Xylene	2.3 E-03	5.7E-04
91-20-3	Naphthalene	0.05	0.02
7440-02-0	Nickel	2.1E-03	8.1E-04
95-47-6	o-Xylene	0.02	6.4E-03
2051-24-3	PCB-209	1.8E-07	6.9E-08
87-86-5	Pentachlorophenol	3.3E-05	1.3E-05
127-18-4	Perchloroethylene	0.02	0.01
198-55-0	Perylene	3.4E-07	1.3E-07
85-01-8	Phenanthrene	4.6E-03	1.8E-03
108-95-2	Phenol	0.06	0.02
504	Phosphorus	0.93	0.25
1336-36-3	Polychlorobiphenyls	5.0E-06	1.9E-06
123-38-6	Propionaldehyde	0.20	0.08
129-00-0	Pyrene	2.4E-03	9.4E-04
7782-49-2	Selenium	7.0E-03	2.7E-03
100-42-5	Styrene	0.63	0.19
108-88-3	Toluene	0.82	0.23
79-01-6	Trichloroethylene	0.02	7.6E-03
75-01-4	Vinyl Chloride	0.01	4.6E-03
1330-20-7	Xylene	2.6E-03	2.6E-03
<b>Total (TPY) =</b>		<b>37.5*</b>	<b>17</b>
*Potential to Emit is based on maximum operational capacity/throughputs for each emission unit, however the facility has accepted an enforceable FHAP limit of 24 tons per year for total FHAPs and 9 tons per year for any single FHAP.			

#### TITLE V PERMIT CHANGE LOG

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

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
1	1	None.	NA
2	NA	New condition	NA
3	2	Updated list of conditions that are only enforceable by LRAPA.	Update/correction.
4	3	Updated emission unit numbering.	Update/correction.
5	4	None	NA
6	5	Added LRAPA citation authority.	Add citation authority.
7	5.d.	None	NA
8	6	None	NA
9	8	None	NA
10	NA	New condition	NA
11	7	Added citation authority.	Add citation authority.
12	14	None	NA
13	15	Updated rule citation.	Rule update/revision.
14	19, 21	Updated rule citation. Updated testing requirement.	Rule update/revision. Updated testing condition for clarity.
15	NA	New condition.	NA
16	18	Updated language for clarity.	Update/correction.
17	18	Moved recordkeeping requirement for clarity.	Update/correction.
18	NA	New condition.	NA
19	NA	New condition.	NA
20	16	None	NA
21	17	None	NA
22	25	Updated citation authority.	Update citation authority.
23	22	None	NA
24	NA	New condition.	NA
25	21	Updated testing requirements. Removed testing requirement for VOC.	Updates/correction.
26	21	Moved reporting requirement to its own condition.	Updated for clarity.
27	31.e.	None	NA
28	26, 27	None	NA
29	27	None	NA
30	31.a.	None	NA
31	31.d.	None	NA
32	NA	New condition.	NA
33	NA	New condition.	NA
34	NA	New condition.	NA
35	32	Updated rule citation and emission unit numbering.	Rule update/revision. Update/correction to emission unit numbering.
36	34	Update rule citation.	Rule update/revision.
37	NA	New condition.	NA
38	36	None	NA
39	33	Updated requirements.	Update/correction.
40	33	Moved reporting requirement to its own condition.	Updated for clarity.
41	35	Updated language. Added additional requirements.	Update/correction.
42	NA	New condition.	NA

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
43	NA	New condition.	NA
44	NA	New condition.	NA
45	NA	New condition.	NA
46	NA	New condition.	NA
47	40	Updated language.	Rule update/revision.
48	NA	New condition.	NA
49	NA	New condition.	NA
50	NA	New condition.	NA
51	41	Updated language.	Rule update/revision.
52	NA	New condition.	NA
53	42	Changed maximum drying temperature.	Change in source's operating conditions.
54	43	Changed maximum drying temperature and monitoring requirement.	Change in source's operating conditions.
55	44	None	NA
56	45	None	NA
57	NA	New condition.	NA
58	NA	New condition.	NA
59	NA	New condition.	NA
60	NA	New condition.	NA
61	NA	New condition.	NA
62	NA	New condition.	NA
63	NA	New condition.	NA
64	NA	New condition.	NA
65	NA	New condition.	NA
66	NA	New condition.	NA
67	NA	New condition.	NA
68	46	Update rule language and citation.	Rule change/revision.
69	47	Update rule language and citation.	Rule change/revision.
70	NA	New condition.	NA
71	NA	New condition.	NA
72	NA	New condition.	NA
73	NA	New condition.	NA
74	NA	New condition.	NA
75	NA	New condition.	NA
76	NA	New condition.	NA
77	NA	New condition.	NA
78	NA	New condition.	NA
79	NA	New condition.	NA
80	NA	New condition.	NA
81	NA	New condition.	NA
82	NA	New condition.	NA
83	NA	New condition.	NA
84	NA	New condition.	NA
85	NA	New condition.	NA
86	NA	New condition.	NA
87	NA	New condition.	NA
88	NA	New condition.	NA
89	NA	New condition.	NA
90	48	Updated PSELs.	Change in source's operating conditions and emission factors.

New Permit Condition Number	Old Permit Condition Number	Description of Change	Reason for Change
91	49.a.	Updated monitoring requirements.	Change in source's operating conditions.
92	49	Added citation authority.	Update/correction.
93	49.c.	Updated Emission Factors.	Change in source's operating conditions and emission factors.
94	63	Update rule language and citation.	Rule change/revision.
95	51	None	NA
96	21.b.	Updated testing requirements and methods.	Update/correction.
97	21.c.	Updated testing requirements and methods.	Update/correction.
98	55	None	NA
99	NA	New condition.	NA
100	58	None	NA
101	59	Added new applicable requirement in Condition 101.c from LRAPA title 36.	Rule change/revision.
102	60	None	NA
103	56	None	NA
104	61	None	NA
105	62	None	NA
106	64	None	NA
107	65	Changed due dates of semi-annual reports.	Update/correction.
108	65	Changed due date of annual monitoring report.	Update/correction.
109	65	Updated list of required elements for annual report.	Update/correction.
110	63	Update rule language and citation.	Rule change/revision.
111	66	None	NA
112	68	Updated list of non-applicable requirements.	Update/correction.

## GENERAL RECORDKEEPING REQUIREMENTS

79. The permit includes requirements for maintaining records of all testing, monitoring, and production information necessary for assuring compliance with the standards and calculating plant site emissions. The records of all monitoring specified in the Title V Operation Permit must be kept at the plant site for at least five (5) years.

## GENERAL REPORTING REQUIREMENTS

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

## COMPLIANCE HISTORY

81. This facility is regularly inspected by LRAPA and occasionally by other regulatory agencies. The following table indicates the inspection history of this facility since the last permit issuance in 2019:

Type of Inspection	Date	Results
LRAPA – Full Compliance Evaluation	6/4/2024	No evidence of non-compliance
LRAPA – Full Compliance Evaluation	7/26/2022	No evidence of non-compliance

82. The facility was issued a Notice of Non-Compliance (NON-3850) on February 18<sup>th</sup>, 2022 and Notice of Civil Penalty (NCP No. 2022-3850) on April 6<sup>th</sup>, 2022 for exceeding the 20% opacity limit for EU-01, Boiler #3. The facility paid the civil penalty amount of \$5,400 on April 18<sup>th</sup>, 2022.

## SOURCE TEST RESULTS

83. This facility has conducted a number of source tests to comply with permit requirements for Emission Unit 01 (wood-fired boilers). The tables below show the results of the test reports on file at LRAPA.

Emission Unit EU-01 – Boiler #1			
Pollutant	Source Test Date	Emission Rate	Units
PM	9/28/2021	0.037	gr/dscf @12% CO <sub>2</sub>
PM	9/28/2021	3.76	lbs/hr
PM	9/28/2021	0.184	lbs/1000 lbs steam
PM	9/13/2017	0.028	gr/dscf @12% CO <sub>2</sub>
PM	9/13/2017	2.58	lbs/hr
PM	9/13/2017	0.126	lbs/1000 lbs steam
PM	7/21-2009	0.031	gr/dscf @12% CO <sub>2</sub>
PM	7/21-2009	3.3	lbs/hr
PM	7/21-2009	0.263	lbs/1000 lbs steam
PM	7/18/2002	0.02	gr/dscf @12% CO <sub>2</sub>
PM	7/18/2002	2	lbs/hr
PM	7/18/2002	0.074	lbs/1000 lbs steam
PM	6/22/1989	0.07	gr/dscf @12% CO <sub>2</sub>
PM	6/22/1989	4.03	lbs/hr
PM	6/22/1989	0.366	lbs/1000 lbs steam
PM	2/21/1985	0.089	gr/dscf @12% CO <sub>2</sub>
PM	2/21/1985	8.313	lbs/hr
PM	2/21/1985	0.283	lbs/1000 lbs steam
NO <sub>x</sub>	9/28/2021	6.35	lbs/hr
NO <sub>x</sub>	9/28/2021	0.332	lbs/1000 lbs steam
NO <sub>x</sub>	9/13/2017	4.88	lbs/hr
NO <sub>x</sub>	9/13/2017	0.242	lbs/1000 lbs steam
NO <sub>x</sub>	7/23/2009	5	lbs/hr
NO <sub>x</sub>	7/23/2009	0.543	lbs/1000 lbs steam
NO <sub>x</sub>	7/18/2002	8.1	lbs/hr
NO <sub>x</sub>	7/18/2002	0.298	lbs/1000 lbs steam
CO	9/28/2021	3.15	lbs/hr
CO	9/28/2021	0.170	lbs/1000 lbs steam
CO	9/13/2017	3.84	lbs/hr
CO	9/13/2017	0.185	lbs/1000 lbs steam
CO	7/23/2009	7.5	lbs/hr
CO	7/23/2009	0.815	lbs/1000 lbs steam
CO	7/18/2002	6.1	lbs/hr
CO	7/18/2002	0.224	lbs/1000 lbs steam
SO <sub>2</sub>	7/23/2009	0.053	lbs/hr
SO <sub>2</sub>	7/23/2009	0.0058	lbs/1000 lbs steam
VOC	9/28/2021	0.237	lbs/hr
VOC	9/28/2021	0.011	lbs/1000 lbs steam

Emission Unit EU-01 – Boiler #1			
Pollutant	Source Test Date	Emission Rate	Units
VOC	7/23/2009	0.146	lbs/hr
VOC	7/23/2009	0.016	lbs/1000 lbs steam
VOC	7/18/2002	4.39	lbs/hr
VOC	7/18/2002	0.161	lbs/1000 lbs steam

Emission Unit EU-01 – Boiler #2			
Pollutant	Source Test Date	Emission Rate	Units
PM	9/28/2021	0.094	gr/dscf @12% CO <sub>2</sub>
PM	9/28/2021	10.74	lbs/hr
PM	9/28/2021	0.517	lbs/1000 lbs steam
PM	9/12/2017	0.033	gr/dscf @12% CO <sub>2</sub>
PM	9/12/2017	2.7	lbs/hr
PM	9/12/2017	0.162	lbs/1000 lbs steam
PM	2/5/2003	0.061	gr/dscf @12% CO <sub>2</sub>
PM	2/5/2003	7.3	lbs/hr
PM	2/5/2003	0.287	lbs/1000 lbs steam
PM	3/9/1993	0.144	gr/dscf @12% CO <sub>2</sub>
PM	3/9/1993	21.1	lbs/hr
PM	3/9/1993	0.703	lbs/1000 lbs steam
PM	6/22/1989	0.059	gr/dscf @12% CO <sub>2</sub>
PM	6/22/1989	3.8	lbs/hr
PM	6/22/1989	0.353	lbs/1000 lbs steam
NO <sub>x</sub>	9/28/2021	9.37	lbs/hr
NO <sub>x</sub>	9/28/2021	0.466	lbs/1000 lbs steam
NO <sub>x</sub>	9/12/2017	6.07	lbs/hr
NO <sub>x</sub>	9/12/2017	0.367	lbs/1000 lbs steam
NO <sub>x</sub>	7/16/2002	8.9	lbs/hr
NO <sub>x</sub>	7/16/2002	0.34	lbs/1000 lbs steam
NO <sub>x</sub>	3/9/1993	12.85	lbs/hr
NO <sub>x</sub>	3/9/1993	0.428	lbs/1000 lbs steam
CO	9/28/2021	3.06	lbs/hr
CO	9/28/2021	0.148	lbs/1000 lbs steam
CO	9/12/2017	0.98	lbs/hr
CO	9/12/2017	0.059	lbs/1000 lbs steam
CO	7/16/2002	2.2	lbs/hr
CO	7/16/2002	0.084	lbs/1000 lbs steam
CO	3/9/1993	15.9	lbs/hr
CO	3/9/1993	0.53	lbs/1000 lbs steam
VOC	9/28/2021	0.269	lbs/hr
VOC	9/28/2021	0.013	lbs/1000 lbs steam
VOC	2/5/2003	0.171	lbs/hr
VOC	2/5/2003	0.0067	lbs/1000 lbs steam
VOC	7/16/2002	5.69	lbs/hr
VOC	7/16/2002	0.218	lbs/1000 lbs steam
VOC	8/6/1993	5.2	lbs/hr
VOC	8/6/1993	0.226	lbs/1000 lbs steam

Emission Unit EU-01 – Boiler #3			
Pollutant	Source Test Date	Emission Rate	Units
PM	9/28/2021	0.046	gr/dscf @12% CO <sub>2</sub>
PM	9/28/2021	4.32	lbs/hr
PM	9/28/2021	0.251	lbs/1000 lbs steam
PM	9/13/2017	0.036	gr/dscf @12% CO <sub>2</sub>
PM	9/13/2017	2.42	lbs/hr
PM	9/13/2017	0.126	lbs/1000 lbs steam
PM	2/5/2003	0.042	gr/dscf @12% CO <sub>2</sub>
PM	2/5/2003	4.7	lbs/hr
PM	2/5/2003	0.185	lbs/1000 lbs steam
PM	8/5/1993	0.041	gr/dscf @12% CO <sub>2</sub>
PM	8/5/1993	5.9	lbs/hr
PM	8/5/1993	0.221	lbs/1000 lbs steam
PM	3/10/1993	0.274	gr/dscf @12% CO <sub>2</sub>
PM	3/10/1993	36	lbs/hr
PM	3/10/1993	1.09	lbs/1000 lbs steam
PM	6/23/1989	0.029	gr/dscf @12% CO <sub>2</sub>
PM	6/23/1989	1.4	lbs/hr
PM	6/23/1989	0.095	lbs/1000 lbs steam
NO <sub>x</sub>	9/28/2021	8.59	lbs/hr
NO <sub>x</sub>	9/28/2021	0.495	lbs/1000 lbs steam
NO <sub>x</sub>	9/13/2017	6.22	lbs/hr
NO <sub>x</sub>	9/13/2017	0.324	lbs/1000 lbs steam
NO <sub>x</sub>	7/17/2002	8.8	lbs/hr
NO <sub>x</sub>	7/17/2002	0.326	lbs/1000 lbs steam
NO <sub>x</sub>	8/5/1993	6.22	lbs/hr
NO <sub>x</sub>	8/5/1993	0.324	lbs/1000 lbs steam
NO <sub>x</sub>	3/10/1993	11.1	lbs/hr
NO <sub>x</sub>	3/10/1993	0.428	lbs/1000 lbs steam
CO	9/28/2021	1.22	lbs/hr
CO	9/28/2021	0.071	lbs/1000 lbs steam
CO	9/13/2017	0.57	lbs/hr
CO	9/13/2017	0.03	lbs/1000 lbs steam
CO	7/17/2002	0.75	lbs/hr
CO	7/17/2002	0.028	lbs/1000 lbs steam
CO	8/5/1993	0.57	lbs/hr
CO	8/5/1993	0.03	lbs/1000 lbs steam
CO	3/10/1993	53.7	lbs/hr
CO	3/10/1993	0.53	lbs/1000 lbs steam
VOC	9/28/2021	0.233	lbs/hr
VOC	9/28/2021	0.013	lbs/1000 lbs steam
VOC	2/5/2003	0	lbs/hr
VOC	2/5/2003	0	lbs/1000 lbs steam
VOC	7/17/2002	3.54	lbs/hr
VOC	7/17/2002	0.131	lbs/1000 lbs steam

84. The facility is required to perform compliance testing using the test methods (or alternate test methods approved in writing by LRAPA) at the frequency listed in the table below. Prior to this permitting action the EU-01 (boilers) emission factor for VOC was based on source testing results from 1993. Source testing conducted in 2021 showed EU-01 (boilers) VOC emission rates to be substantially lower than both the 1993 source test results and the current DEQ published VOC emission factor for wood-fired boilers. Due to the inconsistency in source test data for VOC, the source has elected to use DEQ's published emission

factors for VOC as the basis of their VOC emissions for EU-01 (boilers) and is no longer required to conduct emission factor verification testing for VOC.



<b>Emissions Unit</b>	<b>Pollutant / Testing</b>	<b>EPA/DEQ Test Method</b>	<b>Limitation</b>	<b>SIP / CAO/ NSPS / NESHAP</b>	<b>Minimum Frequency</b>
EU-01	Total PM	Method 5 and 202	0.15 g/dscf PWR lbs/hr EF Verification	SIP SIP SIP	Within 18 months of permit issuance and every 5 years thereafter
EU-01	Nitrogen Oxides	Method 7E	EF Verification	SIP	5 years
EU-01	Carbon Monoxide	Method 10	EF Verification	SIP	5 years

## **PUBLIC NOTICE**

85. This permit was on public notice from March 20<sup>th</sup>, 2025 to April 25<sup>th</sup>, 2025. No written comments were received during the 35-day public comment period.

## **EPA REVIEW**

86. The proposed permit was sent to EPA on April 28 2025 for a 45-day review period. Because no advance comments were received and there were no substantiative changes to the permit after the public comment period, LRAPA requested, and EPA agreed 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.

## EMISSION DETAIL SHEETS

### Baseline, PSEL, & Netting:

Pollutant	Previous Baseline Emission Rate (TPY)	Adjusted Baseline Emission Rate <sup>1</sup> (TPY)	Previous Netting Basis (TPY)	Adjusted Netting Basis <sup>2</sup> (TPY)	Proposed Netting Basis (TPY)	Previous PSEL (TPY)	Proposed PSEL <sup>3</sup> (TPY)	PTE (TPY)	Previous Unassigned Emissions	Proposed Unassigned Emissions <sup>4</sup> (TPY)	Emission Reduction Credits (TPY)	SER (TPY)	PSEL Increase Over Netting Basis (TPY)	PSEL Increase Due to Utilizing Existing Baseline Period (TPY)
PM	243	203	244	203	137	178	120	120	66	17	0	25	-17	0
PM <sub>10</sub>	243	203	244	203	130	171	113	113	73	15	0	15	-16	0
PM <sub>2.5</sub>	NA	NA	142	-	123	123	94	94	19	10	0	10	-29	0
CO	1042	1042	400	-	274	274	274	274	126	0	0	100	0	0
NO <sub>x</sub>	183	183	183	-	181	181	181	181	2	0	0	40	0	0
SO <sub>2</sub>	6	6	5.9	-	6	39	5	5	0	1	0	40	-1	0
VOC	197	189	197	189	189	230	210	210	0	0	0	40	22	0
GHG <sub>2010</sub>	81740	81740	81740	-	81740	81740	144110	144110	NA	0	0	75,000	62370	0
HAP	NA	NA	NA	NA	NA	24	24	37	NA	NA	0	NA	NA	NA
Single HAP	NA	NA	NA	NA	NA	9	9	14	NA	NA	0	NA	NA	NA

1. The BERs for PM, PM<sub>10</sub>, and VOC were adjusted as follows:

BER for PM and PM<sub>10</sub> is adjusted due to change in Emission factors for EU-02 (plantsite fugitives from material handling). The previous emission factors were published in AP-42's 4th edition, which is now obsolete. More accurate and reliable emission factors were made available through NCASI in 2015.

BER for VOC is adjusted due to change in several emission factors:

EU-01 (boilers) VOC EF was changed from 0.19 lb/Mlb steam to 0.13 lb/Mlb steam due to there being no documented source for the 0.19 lb/Mlb steam value. The average of all representative VOC source tests result in an EF of 0.08 lb/Mlb steam, but the source elected to use the more conservative DEQ EF of 0.13 lb/Mlb steam.

EU-08 (kilns) VOC emission factors were updated to reflect more accurate and reliable emission factors published by DEQ in 2021.

2. The Netting Basis for PM, PM<sub>10</sub>, and VOC was adjusted to reflect the adjusted Baseline Emission Rate. This value was subsequently used to calculate the Proposed Netting Basis.

3. The GHG BER established in the 2019 permit renewal, which was based on the operational capacity in 2010, was incorrectly set as the PSEL. The proposed GHG PSEL is reflective of current operational capacity.

4. The calculated Unassigned Emissions for these pollutants exceeded the SER. The Proposed Unassigned Emissions have been reduced to the SER.

### EU-01: Boilers

EU-01 Boiler Emissions			
Maximum Capacity:	685000	MlbSteam/yr	
Pollutant	EF (lbs/Mlb Steam)	Emissions	
		lb/yr	tpy
PM	0.316	2.17E+05	108.3
PM10	0.300	2.06E+05	102.9
PM2.5	0.253	1.73E+05	86.6
NOx	0.528	3.62E+05	180.8
SO2	0.014	9.59E+03	4.8
CO	0.800	5.48E+05	274.0
VOC	0.130	8.91E+04	44.5
Aggregate HAP	0.043	2.92E+04	14.6
Single HAP (MeOH)	0.002	1.55E+03	0.77
GHG	420.759	2.88E+08	1.44E+05
EU-01 Boiler EF Sources:			
PM and NOx:	Avg. of all Rosboro Representative Source Tests		
PM10 and PM2.5:	Avg PM EF from Rosb Source Tests*(0.50):DEQ AQ-EF03 8/11 PM10 and PM 2.5 Fraction, Multiclone Low Pressure		
SO2:	DEQ AQGP-010, 13.1.a: Wood Fuel Dutch Oven Emission Factors (10/2017)		
CO:	Avg. of Rosboro Representative Source Tests 1993 - 2002 = 0.789 lb/Mlb Steam AND NCASI Technical Bulletin No. 1013. March 2013 Table 5.1, converted to lb/Mlb Steam using 1.9 MMBtu/Mlb Steam.		
VOC:	DEQ AQGP-010, 13.1.a: Wood Fuel Dutch Oven Emission Factors (10/2017)		
HAPs:	AP-42, Table 1.6-3 - Emission Factors for Speciated Organic Compounds, etc. Converted to lb/Mlb steam using 1.9MMBtu/Mlb steam.		
	AP-42, Table 1.6-4: Emission Factors for Trace Elements from Wood Residue Combustion. Converted to lb/Mlb steam using 1.9MMBtu/Mlb steam.		
	DEQ AQGP-010, 13.1 b - Wood fuel		
	Average of all representative Rosboro Source Tests		
GHG:	DEQ-approved NCASI TB 1013		
	DEQ GHG Steam calculator		

EU-02 Plantsite Fugitives Emissions					
By-Product	Maximum Capacity <sup>1</sup> (green ton/yr)	Pollutant	EF (lb/green ton)	Emissions	
				lb/yr	tpy
Chips	0	PM	1.60E-04	0	0
		PM10	1.60E-04	0	0
		PM2.5	2.80E-05	0	0
Hog Fuel, sawdust, Shavings	844922	PM	2.70E-03	2281.29	1.14
		PM10	2.70E-03	2281.29	1.14
		PM2.5	4.50E-04	380.21	0.19
1.The general by-products percentages are 60% chips, 20% sawdust, 18% shavings, and 2% hog fuel but these can vary significantly month to month. For purposes of calculating PTE, EF for Hog Fuel/Sawdust/Shavings is applied to 100% of the maximum throughput.					
EU-02 Plantsite Fugitives EF Sources:					
PM/PM10/PM2.5:	NCASI Special Report NO. 15-01, April 2015 'Estimating the Potential for PM Emissions from Wood and Bark Handling', Table 6.1. Assuming PM = PM10.				

EU-03 Milling Activities:

EU-03 Milling Activities Emissions					
PCD	Maximum Throughput (BDT/yr)	Pollutant	EF (lb/BDT)	Emissions	
				lb/yr	tpy
Cyclone	22322	PM	5.00E-01	11161	5.58
		PM10	4.25E-01	9487	4.74
		PM2.5	2.50E-01	5581	2.79
Target Box	15558	PM	1.00E-01	1556	0.78
		PM10	8.50E-02	1322	0.66
		PM2.5	5.00E-02	778	0.39
Baghouse #5	25	PM	1.00E-03	0.03	1.25E-05
		PM10	9.95E-04	0.02	1.24E-05
		PM2.5	9.90E-04	0.02	1.24E-05
Baghouse #18	3995	PM	4.00E-02	159.8	0.08
		PM10	3.98E-02	159.0	0.08
		PM2.5	3.96E-02	158.2	0.08
Baghouse #26	2000	PM	1.00E-03	2.00	1.0E-03
		PM10	9.95E-04	1.99	1.0E-03
		PM2.5	9.90E-04	1.98	9.9E-04
			Total PM	12879	6.44
			Total PM10	10970	5.49
			Total PM2.5	6519	3.26

EU-03 Milling Activities EF Sources:		
Cyclone	PM	DEQ AQ-EF02, Emission Factors (08/2011): Cyclone - Dry and Green chips, Shavings, Hogged Fuel/Bark, Green Sawdust - medium Efficiency
	PM10	PM*85%: DEQ AQ-EF03, Emission Factors (08/2011): PM 10 Fraction for Cyclone - medium efficiency
	PM2.5	PM*50%: DEQ AQ-EF03, Emission Factors (08/2011): PM 2.5 Fraction for Cyclone - medium efficiency
Target Box	PM	DEQ AQ-EF02, Emission Factors (08/2011): Target Box
	PM10	PM*85%: DEQ AQ-EF03, Emission Factors (08/2011): PM 10 Fraction for Medium efficiency cyclones and process equipment
	PM2.5	PM*50%: DEQ AQ-EF03, Emission Factors (08/2011): PM 2.5 Fraction for Medium efficiency cyclones and process equipment
Baghouse #18	PM	DEQ AQ-EF02, Emission Factors (08/2011): Cyclone - Sanderdust, Baghouse control
	PM10	PM*99.5%: DEQ AQ-EF03, Emission Factors (08/2011): PM 10 Fraction for Bag filter system cyclones and process equipment
	PM2.5	PM*99%: DEQ AQ-EF03, Emission Factors (08/2011): PM 2.5 Fraction for Bag filter system cyclones and process equipment
Baghouse #5, 26	PM	DEQ AQ-EF02, Emission Factors (08/2011): Cyclone - Dry and Green chips, Shavings, Hogged Fuel/Bark, Green Sawdust - Baghouse control
	PM10	PM*99.5%: DEQ AQ-EF03, Emission Factors (08/2011): PM 10 Fraction for Bag filter system - cyclones and process equipment
	PM2.5	PM*99%: DEQ AQ-EF03, Emission Factors (08/2011): PM 2.5 Fraction for Bag filter system - cyclones and process equipment

EU-03 Milling Activities Air Discharge		
Milling Equipment	Primary PCD	Secondary PCD
Mill B #2 Trimmer	Cyclone #2	Baghouse #5
Mill B #2 Planer		
Mill B PET Trimmer		
Mill B #1 Trimmer	Cyclone #4	
Mill B #1 Planer		
Mill B #3 Trimmer		
Mill B #3 Planer		
Lam Plant Sizer	Cyclone #16	Baghouse #26
Lam Plant Scarfers	Cyclone #17	NA
Slabber Chipper	Cyclone #20	NA
Lam Plant Sander	Baghouse #18	NA
Lam Plant Inline Planer		
Lam Plant Saw/Resaw/Sander	Baghouse #26	NA
Mill B Overs Chipper	Target Box #2	NA

EU-05 Plantsite VOCs - Material Balance Emissions												
Material Name	Product Code	% VOC	Maximum Capacity (lb/yr)	Components							Emissions	
				Name	CAS	EF	Units	HAP	TAC	VOC	lb/yr	tpy
Britewood PF-1	Sapstain Control	55	67	3-iodo-2-propynyl butylcarbamate	55406-53-6	40	%	N	N	Y	26.88	0.01
			67	Solvent naphtha (petroleum), light arom	64742-95-6	30	%	N	N	Y	20.16	1.01E-02
			67	1,2,4-Trimethyl benzene	95-63-6	8	%	N	Y	N	5.38	2.69E-03
			67	1,3,5-Trimethylbenzene	108-67-8	3	%	N	Y	Y	2.02	1.01E-03
			67	Dimethyl sulfoxide	67-68-5	20	%	N	N	Y	13.44	6.72E-03
			67	propanol, oxybis-	25265-71-8	20	%	N	Y	N	13.44	6.72E-03
			67	Alkyl ether	Proprietary	20	%	N	N	Y	13.44	6.72E-03
				Total VOC							36.96	0.02
E-800-B EPOXY HRDNR (THK) FIR	1520805B	26.07	5636	Propylene Glycol	57-55-6	30	%	N	N	Y	1.69E+03	0.85
			5636	Diethylenetriamine	111-40-0	10	%	N	N	Y	563.55	0.28
			5636	Silicic acid, sodium salt	1344-09-8	10	%	N	N	N	563.55	0.28
			5636	bisphenol A	80-05-7	5	%	Y	Y	Y	281.78	0.14
			5636	Hydrophobic Silica	67762-90-7	5	%	N	N	N	281.78	0.14
			5636	crystalline silica respirable	14808-60-7	1	%	N	N	N	56.36	0.03
				Total VOC							1.47E+03	0.73
EPW-07 END SEAL CLEAR	2750099	0.01	4818	not considered hazardous by the OSHA Hazard Communication Standard, no ingredients listed on SDS								
				Total VOC							0.48	2.41E-04
MIC-531 MOISTURE INK RED BULK	3010315	5.7	168	2-methoxymethylethoxy)propanol	34590-94-8	3	%	N	Y	N	5.04	2.52E-03
			168	acetic acid	64-19-7	3	%	N	N	Y	5.04	2.52E-03
				Total VOC						9.58	9.58E-03	
Wet Coat Tree Marking Paint - Blue, Yellow	695	60	2088	Acetone	67-64-1	30	%	N	Y	N	626.40	0.31
			2088	Hydrocarbon Propellant	68476-86-8	40	%	N	N	Y	835.20	0.42
			2088	Ethanol	64-17-5	30	%	N	N	Y	626.40	0.31
			2088	Dipropylene Glycol Methyl Ether	34590-94-8	10	%	N	Y	Y	208.80	0.10
				Total VOC						1.25E+03	0.63	
Tree Marking Paint - Aerosol, Fluorescent Green, Pink	688-692	60	833	Hydrocarbon Propellant	68476-86-8	60	%	N	N	Y	499.80	0.25
			833	Hexane	110-54-3	13	%	Y	Y	Y	108.29	0.05
			833	Aliphatic Petroleum Distillates	64742-89-8	13	%	N	N	Y	108.29	0.05
			833	Aliphatic Petroleum Distillates	64742-88-7	5	%	N	N	Y	41.65	0.02
			833	Propylene Glycol	57-55-6	5	%	N	N	Y	41.65	0.02
			833	Aliphatic Petroleum Distillates	8032-32-4	5	%	N	N	Y	41.65	0.02
				Total VOC							499.80	0.25
Epoxy, Part A U-100 MB NS 6:1 TAN (30 SET)	920917	9.12	286207	Di(Heptyl, Nonyl, Undecyl)Phthalate	68515-45-7	10	%	N	N	Y	2.86E+04	14.31
			286207	crystalline silica respirable	14808-60-7	1	%	N	N	N	2.86E+03	1.43
				Total VOC						2.61E+04	13.05	

Industrial WORK DAY™ Enamel Spray Paint Gloss Red	A04404007	65	1183	Acetone	67-64-1	50	%	N	Y	N	591.50	0.30		
			1183	Propane	74-98-6	25	%	N	N	Y	295.75	0.15		
			1183	n-Butyl Acetate	123-86-4	25	%	N	N	Y	295.75	0.15		
			1183	Butane	106-97-8	10	%	N	N	Y	118.30	0.06		
			1183	Lt. Aliphatic Hydrocarbon Solvent	64742-89-8	5	%	N	N	Y	59.15	0.03		
			1183	Ethyl 3-Ethoxypropionate	763-69-9	5	%	N	N	Y	59.15	0.03		
			1183	Titanium Dioxide	13463-67-7	1	%	N	N	N	11.83	5.92E-03		
			1183	Ethylbenzene	100-41-4	0.3	%	Y	Y	Y	3.55	1.77E-03		
			Total VOC									768.95	0.38	
Industrial WORK DAY™ Enamel Spray Paint Flat Black	A04412007	65	494	Acetone	67-64-1	50	%	N	Y	N	247.00	0.12		
			494	Propane	74-98-6	25	%	N	N	Not Listed	123.50	0.06		
			494	Butane	106-97-8	25	%	N	N	Not Listed	123.50	0.06		
			494	Isobutyl Acetate	110-19-0	25	%	N	N	Not Listed	123.50	0.06		
			494	Toluene	108-88-3	10	%	Y	Y	Y	49.40	0.02		
			494	Talc	14807-96-6	5	%	N	N	Not Listed	24.70	0.01		
			494	Ethyl 3-Ethoxypropionate	763-69-9	3	%	N	N	Not Listed	14.82	7.41E-03		
			494	Carbon Black	1333-86-4	1	%	N	N	Not Listed	4.94	2.47E-03		
494	Xylene mixed isomers	1330-20-7	0.3	%	Y	Y	Y	1.48	7.41E-04					
			Total VOC									321.10	0.16	
Industrial WORK DAY™ Enamel Spray Paint Blue	A04403007	65	495	Acetone	67-64-1	50	%	N	Y	N	247.50	0.12		
			495	Propane	74-98-6	25	%	N	N	Not Listed	123.75	0.06		
			495	Butane	106-97-8	25	%	N	N	Not Listed	123.75	0.06		
			495	Toluene	108-88-3	10	%	Y	Y	Y	49.50	0.02		
			495	Isobutyl Acetate	110-19-0	10	%	N	N	Not Listed	49.50	0.02		
			495	Ethyl 3-Ethoxypropionate	763-69-9	3	%	N	N	Not Listed	14.85	7.43E-03		
			495	Titanium Dioxide	13463-67-7	3	%	N	N	Not Listed	14.85	7.43E-03		
			495	Trimethylpentanediol Diisobutyrate	6846-50-0	1	%	N	N	Not Listed	4.95	2.48E-03		
495	Methyl Ethyl Ketoxime	96-29-7	0.3	%	N	N	Not Listed	1.49	7.43E-04					
			Total VOC									321.75	0.16	
Industrial WORK DAY™ Enamel Spray Paint Green	A04408007	65	296	Acetone	67-64-1	50	%	N	Y	N	148.00	0.07		
			296	Propane	74-98-6	25	%	N	N	Not Listed	74.00	0.04		
			296	n-Butyl Acetate	123-86-4	25	%	N	N	Not Listed	74.00	0.04		
			296	Butane	106-97-8	10	%	N	N	Not Listed	29.60	0.01		
			296	Lt. Aliphatic Hydrocarbon Solvent	64742-89-8	5	%	N	N	Not Listed	14.80	7.40E-03		
			296	Ethyl 3-Ethoxypropionate	763-69-9	5	%	N	N	Not Listed	14.80	7.40E-03		
			296	Xylene	1330-20-7	1	%	Y	Y	Y	2.96	1.48E-03		
			296	Titanium Dioxide	13463-67-7	0.3	%	N	N	Not Listed	0.89	4.44E-04		
296	Ethylbenzene	100-41-4	0.3	%	Y	Y	Y	0.89	4.44E-04					
			Total VOC									192.40	0.10	
								Material Balance VOC:					30975.05	15.49
								Material Balance HAP:					497.84	0.25
								Material Balance Single HAP (MeOH):					0.00	0.00
								Material Balance TAC:					2592.92	1.30

## EU-08 Kilns

EU-08 Kiln Emissions												
Species	Kiln Max. Temperature	Capacity <sup>1</sup>	Emission Factor units: lb/MBF									
			PM	PM10	PM2.5	VOC	Aggregate HAP	Methanol (Single HAP)	Formaldehyde	Acetaldehyde	Propionaldehyde	Acrolein
Douglas Fir	170		0.02	0.02	0.02	0.666	0.084	0.038	0.0014	0.043	0.0009	0.0008
	175		0.02	0.02	0.02	0.741	0.090	0.044	0.0016	0.043	0.0009	0.0008
	180		0.02	0.02	0.02	0.816	0.097	0.050	0.0017	0.043	0.0009	0.0008
	185		0.02	0.02	0.02	0.891	0.103	0.057	0.0019	0.043	0.0009	0.0008
Hemlock	190	287000	0.02	0.02	0.02	0.966	0.110	0.063	0.0021	0.043	0.0009	0.0008
	170		0.05	0.05	0.05	0.240	0.144	0.028	0.0002	0.1128	0.0012	0.0018
	175		0.05	0.05	0.05	0.266	0.157	0.041	0.0005	0.1128	0.0012	0.0018
	180		0.05	0.05	0.05	0.292	0.172	0.055	0.0008	0.1128	0.0012	0.0018
	185		0.05	0.05	0.05	0.318	0.186	0.069	0.0011	0.1128	0.0012	0.0018
Emissions	45000		0.05	0.05	0.05	0.344	0.199	0.082	0.0015	0.1128	0.0012	0.0018
	lb/yr:		7990	7990	7990	292722	40424	21714	670	17417	312	311
tpy:			4.00	4.00	4.00	146.36	20.21	10.86	0.34	8.71	0.16	0.16

1. Kilns dry lumber at 170, 175, 180, 185, or 190 F. For purposes of calculating PTE, emission factors for drying at 190F were applied to 100% of the kiln's maximum throughput.

EF Sources:	
PM, PM10, PM2.5:	DEQ AQGP-010, Section 13.3: Steam-Heat Kilns (10/2017)
VOC:	DEQ AQ-EF09: DEQ HAP and VOC Emission Factors for Lumber Drying, 2021
HAPS:	DEQ AQ-EF09: DEQ HAP and VOC Emission Factors for Lumber Drying, 2021

## EU-AIA Gasoline Dispensing Facility

EU-AIA GDF Emissions		
Storage Tank Size:	4,000	gal
Maximum Annual GDF Throughput:	2,256	gal/yr
Vehicles w/ ORVR <sup>1</sup> in Lane Co.	65	percent
Refueling - No ORVR <sup>2</sup> :	10.36	lbs/Mgals
Refueling - ORVR <sup>3</sup> :	0.21	lbs/Mgals
Source	EF (lb/Mgal)	
Tank Filling <sup>4</sup>	7.70	
Breathing <sup>5</sup>	1.00	
Adjusted Refueling	3.76	
Spillage <sup>6</sup>	0.61	
Hose Permeation	0.062	
Total VOC EF:	13.13	
<b>VOC PTE (tpy)</b>	<b>0.01</b>	
1. ORVR = Onboard Refueling Vapor Recovery		
2. Refueling emission factor with no ORVR based on DEQ 2018 GDF VOC Estimates.		
3. Refueling emission factor with no ORVR based on DEQ 2018 GDF VOC Estimates.		
4. Tank filling emission factor from CARB "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities (2013) - Table IV-I.		
5. Breathing emission factor from US EPA AP-42, Table 5.2-7.		
6. Spillage emission factor from CARB "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities (2013) - Table VI-I.		
7. Hose permeation emission factor from CARB "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities (2013) - Table VII-I.		

EU-AIA Beam Wrap Saw

EU - AIA Beam Wrap Saw Emissions					
PM EF:	0.5	lb PM/ton throughput	DEQ AQ-EF02 - Cyclone Med Efficiency		
Cyclone throughput:	0.54	lbs/cut			
Year	Cuts/day	Cyclone throughput (lbs/day)	Annual Throughput (tpy)	Annual Emissions (lb/yr)	Annual Emissions (tpy)
2025	5	2.7	0.49	0.246375	1.23E-04



### Calculating greenhouse gas emissions from steam production

Equation C-2c\*:  $CO_2 = .001 * \text{Steam} * B * EF$

Equation C-9b\*:  $CH_4 \text{ or } N_2O = .001 * \text{Steam} * B * EF$

\* Equations are from EPA's Mandatory Greenhouse Gas Reporting Rule, 40 CFR Part 98, Subpart C

Total CO <sub>2</sub> e (metric tons):	130,734.63
Total CO <sub>2</sub> e (short tons):	144,110.09
Anthropogenic CO <sub>2</sub> e (metric tons):	1,723.09
Biogenic CO <sub>2</sub> (metric tons):	129,011.54
Total fuel combusted (mmBtu)	1,375,390

#### Input Data

[Steam] = Total mass of steam generated by MSW or solid fuel combustion during the reporting year (lb steam)	685,000,000.
[B] = Ratio of the boiler's maximum rated heat input capacity to its design rated steam output capacity (mmBtu/lb steam)	0.00201
[.001] = Conversion Factor from kg to metric tons (constant)	0.001
[EF] = Fuel-Specific Default CO <sub>2</sub> Emission Factor, from Table C-1 (kg CO <sub>2</sub> /mmBtu)	93.8
[EF] = Fuel-Specific Default CH <sub>4</sub> Emission Factor, from Table C-2 (kg CH <sub>4</sub> /mmBtu)	0.0072
[EF] = Fuel-Specific Default N <sub>2</sub> O Emission Factor, from Table C-2 (kg N <sub>2</sub> O/mmBtu)	0.0036
Is the fuel biomass?	yes



# HAP Summary

Hap & TAC Summary											
EU		Compound	CAS	HAP	TAC	EF	Unit	Max Capacity	Unit	lb/yr	tpy
EU-01 (Boilers)		1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	Y	Y	9.79E-12	lb/Mlb Steam	685000	MlbSteam/yr	6.70E-06	3.35E-09
EU-01 (Boilers)		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	Y	Y	4.75E-11	lb/Mlb Steam	685000	MlbSteam/yr	0.00	1.63E-08
EU-01 (Boilers)		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	Y	Y	1.11E-11	lb/Mlb Steam	685000	MlbSteam/yr	7.57E-06	3.79E-09
EU-01 (Boilers)		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	Y	Y	1.88E-11	lb/Mlb Steam	685000	MlbSteam/yr	1.29E-05	6.44E-09
EU-01 (Boilers)		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	Y	Y	6.92E-12	lb/Mlb Steam	685000	MlbSteam/yr	4.74E-06	2.37E-09
EU-01 (Boilers)		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	Y	Y	1.75E-12	lb/Mlb Steam	685000	MlbSteam/yr	0.00	6.00E-10
EU-01 (Boilers)		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	Y	Y	7.77E-12	lb/Mlb Steam	685000	MlbSteam/yr	5.32E-06	2.66E-09
EU-01 (Boilers)		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	Y	Y	2.62E-12	lb/Mlb Steam	685000	MlbSteam/yr	1.80E-06	8.98E-10
EU-01 (Boilers)		1,2-Dichloropropane	78-87-5	Y	Y	3.19E-05	lb/Mlb Steam	685000	MlbSteam/yr	21.9	0.01
EU-01 (Boilers)		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	Y	Y	1.58E-11	lb/Mlb Steam	685000	MlbSteam/yr	1.08E-05	5.40E-09
EU-01 (Boilers)		2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	Y	Y	1.20E-12	lb/Mlb Steam	685000	MlbSteam/yr	8.24E-07	4.12E-10
EU-01 (Boilers)		2,4,6-Trichlorophenol	88-06-2	Y	Y	4.18E-08	lb/Mlb Steam	685000	MlbSteam/yr	0.03	1.43E-05
EU-01 (Boilers)		2,4-Dinitrophenol	51-28-5	Y	Y	3.42E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.23	1.17E-04
EU-01 (Boilers)		2-Methyl naphthalene	91-57-6	Y	Y	2.66E-06	lb/Mlb Steam	685000	MlbSteam/yr	1.82	9.11E-04
EU-01 (Boilers)		4-Nitrophenol	100-02-7	Y	Y	2.09E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.14	7.16E-05
EU-01 (Boilers)		Acenaphthene	83-32-9	Y	Y	1.62E-06	lb/Mlb Steam	685000	MlbSteam/yr	1.11	5.55E-04
EU-01 (Boilers)		Acenaphthylene	208-96-8	Y	Y	8.91E-06	lb/Mlb Steam	685000	MlbSteam/yr	6.10	3.05E-03
EU-01 (Boilers)		Acetaldehyde	75-07-0	Y	Y	3.65E-03	lb/Mlb Steam	685000	MlbSteam/yr	2497.2	1.25
EU-01 (Boilers)		Acetophenone	98-86-2	Y	Y	3.50E-06	lb/Mlb Steam	685000	MlbSteam/yr	2.39E+00	1.20E-03
EU-01 (Boilers)		Acrolein	107-02-8	Y	Y	4.94E-04	lb/Mlb Steam	685000	MlbSteam/yr	338.4	0.17
EU-01 (Boilers)		Anthracene	120-12-7	Y	Y	5.09E-06	lb/Mlb Steam	685000	MlbSteam/yr	3.49	1.74E-03
EU-01 (Boilers)		Antimony	7440-36-0	Y	Y	5.91E-06	lb/Mlb Steam	685000	MlbSteam/yr	4.05	2.02E-03
EU-01 (Boilers)		Arsenic	7440-38-2	Y	Y	1.37E-05	lb/Mlb Steam	685000	MlbSteam/yr	9.4	0.00
EU-01 (Boilers)		Benz[a]anthracene	56-55-3	Y	Y	1.54E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.11	5.29E-05
EU-01 (Boilers)		Benzene	71-43-2	Y	Y	4.17E-04	lb/Mlb Steam	685000	MlbSteam/yr	285.7	0.14
EU-01 (Boilers)		Benzo[a]pyrene	50-32-8	Y	Y	5.19E-06	lb/Mlb Steam	685000	MlbSteam/yr	3.55	1.78E-03
EU-01 (Boilers)		Benzo[b]fluoranthene	205-99-2	Y	Y	2.70E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.18	9.24E-05
EU-01 (Boilers)		Benzo[e]pyrene	192-97-2	Y	Y	4.01E-07	lb/Mlb Steam	685000	MlbSteam/yr	2.75E-01	1.37E-04
EU-01 (Boilers)		Benzo[g,h,i]perylene	191-24-2	Y	Y	2.87E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.20	9.83E-05
EU-01 (Boilers)		Benzo[j]fluoranthene	205-82-3	Y	Y	2.96E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.20	1.02E-04
EU-01 (Boilers)		Benzo[k]fluoranthene	207-08-9	Y	Y	9.84E-08	lb/Mlb Steam	685000	MlbSteam/yr	0.07	3.37E-05
EU-01 (Boilers)		Beryllium	7440-41-7	Y	Y	2.55E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.17	8.72E-05
EU-01 (Boilers)		Bis(2-ethylhexyl) phthalate	117-81-7	Y	Y	8.93E-08	lb/Mlb Steam	685000	MlbSteam/yr	0.06	3.06E-05
EU-01 (Boilers)		Bromomethane	74-83-9	Y	Y	2.17E-05	lb/Mlb Steam	685000	MlbSteam/yr	14.8	7.42E-03
EU-01 (Boilers)		Cadmium	7440-43-9	Y	Y	9.48E-06	lb/Mlb Steam	685000	MlbSteam/yr	6.49	3.25E-03
EU-01 (Boilers)		Carbazole	86-74-8	Y	Y	3.42E-06	lb/Mlb Steam	685000	MlbSteam/yr	2.34	1.17E-03
EU-01 (Boilers)		Carbon tetrachloride	56-23-5	Y	Y	3.82E-05	lb/Mlb Steam	685000	MlbSteam/yr	26.2	0.01
EU-01 (Boilers)		Chlorine	7782-50-5	Y	Y	2.32E-03	lb/Mlb Steam	685000	MlbSteam/yr	1587.8	0.79
EU-01 (Boilers)		Chlorobenzene	108-90-7	Y	Y	3.15E-05	lb/Mlb Steam	685000	MlbSteam/yr	21.6	0.01
EU-01 (Boilers)		Chloroform	67-66-3	Y	Y	3.82E-05	lb/Mlb Steam	685000	MlbSteam/yr	26.2	0.01
EU-01 (Boilers)		Chromium VI, chromate and dichromate particulate	18540-29-9	Y	Y	1.32E-05	lb/Mlb Steam	685000	MlbSteam/yr	9.07	4.54E-03
EU-01 (Boilers)		Chrysene	218-01-9	Y	Y	1.50E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.10	5.14E-05
EU-01 (Boilers)		Cobalt	7440-48-4	Y	Y	3.17E-06	lb/Mlb Steam	685000	MlbSteam/yr	2.17	1.09E-03
EU-01 (Boilers)		Dibenz[a,h]anthracene	53-70-3	Y	Y	1.82E-08	lb/Mlb Steam	685000	MlbSteam/yr	0.01	6.22E-06
EU-01 (Boilers)		Dibutyl phthalate	84-74-2	Y	Y	6.33E-05	lb/Mlb Steam	685000	MlbSteam/yr	43.34	2.17E-02
EU-01 (Boilers)		Dichlorobiphenyl	1336-36-3	Y	Y	1.41E-09	lb/Mlb Steam	685000	MlbSteam/yr	9.63E-04	4.82E-07
EU-01 (Boilers)		Ethyl benzene	100-41-4	Y	Y	7.51E-04	lb/Mlb Steam	685000	MlbSteam/yr	514.1	0.26
EU-01 (Boilers)		Ethylene dichloride	107-06-2	Y	Y	5.51E-05	lb/Mlb Steam	685000	MlbSteam/yr	37.7	0.02
EU-01 (Boilers)		Fluoranthene	206-44-0	Y	Y	3.17E-06	lb/Mlb Steam	685000	MlbSteam/yr	2.17	1.09E-03
EU-01 (Boilers)		Fluorene	86-73-7	Y	Y	5.72E-06	lb/Mlb Steam	685000	MlbSteam/yr	3.92	1.96E-03
EU-01 (Boilers)		Formaldehyde	50-00-0	Y	Y	4.09E-03	lb/Mlb Steam	685000	MlbSteam/yr	2804.0	1.40
EU-01 (Boilers)		Heptachlorobiphenyl	1336-36-3	Y	Y	1.25E-10	lb/Mlb Steam	685000	MlbSteam/yr	8.59E-05	4.29E-08
EU-01 (Boilers)		Hexachlorobiphenyl	1336-36-3	Y	Y	1.05E-09	lb/Mlb Steam	685000	MlbSteam/yr	7.16E-04	3.58E-07
EU-01 (Boilers)		Hexane	110-54-3	Y	Y	5.47E-04	lb/Mlb Steam	685000	MlbSteam/yr	3.75E+02	1.87E-01

EU-01 (Boilers)	Hydrochloric acid	7647-01-0	Y	Y	0.01	lb/Mlb Steam	685000	MlbSteam/yr	5674.5	2.84
EU-01 (Boilers)	Hydrogen fluoride	7664-39-3	Y	Y	4.47E-04	lb/Mlb Steam	685000	MlbSteam/yr	305.9	0.15
EU-01 (Boilers)	Indeno[1,2,3-cd]pyrene	193-39-5	Y	Y	1.94E-07	lb/Mlb Steam	685000	MlbSteam/yr	0.13	6.64E-05
EU-01 (Boilers)	Lead and compounds	7439-92-1	Y	Y	5.91E-05	lb/Mlb Steam	685000	MlbSteam/yr	40.5	0.02
EU-01 (Boilers)	Manganese	7439-96-5	Y	Y	5.24E-03	lb/Mlb Steam	685000	MlbSteam/yr	3592.1	1.80
EU-01 (Boilers)	Mercury	7439-97-6	Y	Y	3.36E-06	lb/Mlb Steam	685000	MlbSteam/yr	2.30	1.15E-03
EU-01 (Boilers)	Methanol	67-56-1	Y	Y	2.26E-03	lb/Mlb Steam	685000	MlbSteam/yr	1548.1	0.77
EU-01 (Boilers)	Methyl chloride	74-87-3	Y	Y	7.18E-05	lb/Mlb Steam	685000	MlbSteam/yr	49.2	0.02
EU-01 (Boilers)	Methyl chloroform	71-55-6	Y	Y	1.10E-04	lb/Mlb Steam	685000	MlbSteam/yr	75.2	0.04
EU-01 (Boilers)	Methylene chloride	75-09-2	Y	Y	1.04E-03	lb/Mlb Steam	685000	MlbSteam/yr	711.9	0.36
EU-01 (Boilers)	m-Xylene	108-38-3	Y	Y	6.72E-06	lb/Mlb Steam	685000	MlbSteam/yr	4.6	2.30E-03
EU-01 (Boilers)	Naphthalene	91-20-3	Y	Y	1.89E-04	lb/Mlb Steam	685000	MlbSteam/yr	129.6	0.06
EU-01 (Boilers)	Nickel	7440-02-0	Y	Y	2.51E-05	lb/Mlb Steam	685000	MlbSteam/yr	17.18	8.59E-03
EU-01 (Boilers)	o-Xylene	95-47-6	Y	Y	2.15E-05	lb/Mlb Steam	685000	MlbSteam/yr	14.7	0.01
EU-01 (Boilers)	PCB-209	2051-24-3	Y	Y	5.13E-10	lb/Mlb Steam	685000	MlbSteam/yr	3.51E-04	1.76E-07
EU-01 (Boilers)	Pentachlorobiphenyl	1336-36-3	Y	Y	2.28E-09	lb/Mlb Steam	685000	MlbSteam/yr	1.56E-03	7.81E-07
EU-01 (Boilers)	Pentachlorophenol	87-86-5	Y	Y	9.69E-08	lb/Mlb Steam	685000	MlbSteam/yr	0.07	3.32E-05
EU-01 (Boilers)	Perchloroethylene	127-18-4	Y	Y	7.22E-05	lb/Mlb Steam	685000	MlbSteam/yr	49.5	0.02
EU-01 (Boilers)	Perylene	198-55-0	Y	Y	6.08E-08	lb/Mlb Steam	685000	MlbSteam/yr	4.16E-02	2.08E-05
EU-01 (Boilers)	Phenanthrene	85-01-8	Y	Y	1.23E-05	lb/Mlb Steam	685000	MlbSteam/yr	8.41	4.20E-03
EU-01 (Boilers)	Phenol	108-95-2	Y	Y	3.04E-04	lb/Mlb Steam	685000	MlbSteam/yr	208.2	0.10
EU-01 (Boilers)	Phosphorus	504	Y	Y	1.04E-02	lb/Mlb Steam	685000	MlbSteam/yr	7093.2	3.55
EU-01 (Boilers)	Propionaldehyde	123-38-6	Y	Y	4.79E-04	lb/Mlb Steam	685000	MlbSteam/yr	328.0	0.16
EU-01 (Boilers)	Pyrene	129-00-0	Y	Y	6.73E-06	lb/Mlb Steam	685000	MlbSteam/yr	4.61	2.30E-03
EU-01 (Boilers)	Selenium	7782-49-2	Y	Y	6.18E-06	lb/Mlb Steam	685000	MlbSteam/yr	4.2	2.11E-03
EU-01 (Boilers)	Styrene	100-42-5	Y	Y	9.06E-04	lb/Mlb Steam	685000	MlbSteam/yr	620.8	0.31
EU-01 (Boilers)	Tetrachlorobiphenyl	1336-36-3	Y	Y	4.75E-09	lb/Mlb Steam	685000	MlbSteam/yr	3.25E-03	1.63E-06
EU-01 (Boilers)	Toluene	108-88-3	Y	Y	4.01E-05	lb/Mlb Steam	685000	MlbSteam/yr	27.5	0.01
EU-01 (Boilers)	Trichlorobiphenyl	1336-36-3	Y	Y	4.94E-09	lb/Mlb Steam	685000	MlbSteam/yr	3.38E-03	1.69E-06
EU-01 (Boilers)	Trichloroethylene	79-01-6	Y	Y	5.70E-05	lb/Mlb Steam	685000	MlbSteam/yr	39.0	0.02
EU-01 (Boilers)	Vinyl Chloride	75-01-4	Y	Y	3.42E-05	lb/Mlb Steam	685000	MlbSteam/yr	23.4	0.01
EU-05 (VOCs) Lam Finger Joint Adhesive	Formaldehyde	50-00-0	Y	Y	2.22E-04	lb/lb adhesive	225114.00	lb/yr	50.0	0.02
EU-05 (VOCs) Lam Finger Joint Adhesive	Methanol	67-56-1	Y	Y	0.02	lb/lb adhesive	225114.00	lb/yr	4254.7	2.13
EU-05 (VOCs) Lam Press Face Adhesive	Formaldehyde	50-00-0	Y	Y	9.48E-06	lb/lb adhesive	3000000	lb/yr	28.4	0.01
EU-05 (VOCs) Lam Press Face Adhesive	Methanol	67-56-1	Y	Y	1.42E-04	lb/lb adhesive	3000000	lb/yr	426.0	0.21
EU-05 (VOCs) Lam Press Face Adhesive	Phenol	108-95-2	Y	Y	1.57E-05	lb/lb adhesive	3000000	lb/yr	47.1	0.02
EU-05 (VOCs) Material balance	bisphenol A	80-05-7	Y	Y	5.00	%	5635.50	lb/yr	281.8	0.14
EU-05 (VOCs) Material balance	Ethylbenzene	100-41-4	Y	Y	0.30	%	296.00	lb/yr	0.89	4.44E-04
EU-05 (VOCs) Material balance	Ethylbenzene	100-41-4	Y	Y	0.30	%	1183.00	lb/yr	3.55	1.77E-03
EU-05 (VOCs) Material balance	Hexane	110-54-3	Y	Y	13.00	%	833.00	lb/yr	108.3	0.05
EU-05 (VOCs) Material balance	Toluene	108-88-3	Y	Y	10.00	%	494.00	lb/yr	49.4	0.02
EU-05 (VOCs) Material balance	Toluene	108-88-3	Y	Y	10.00	%	495.00	lb/yr	49.5	0.02
EU-05 (VOCs) Material balance	Xylene	1330-20-7	Y	Y	1.00	%	296.00	lb/yr	2.96	1.48E-03
EU-05 (VOCs) Material balance	Xylene mixed isomers	1330-20-7	Y	Y	0.30	%	494.00	lb/yr	1.48	7.41E-04
EU-08 (Kilns) Douglas Fir	Acetaldehyde	75-07-0	Y	Y	0.04	lb/MBF	287,000	MBF/yr	12341.0	6.17
EU-08 (Kilns) Douglas Fir	Acrolein	107-02-8	Y	Y	8.00E-04	lb/MBF	287,000	MBF/yr	229.6	0.11
EU-08 (Kilns) Douglas Fir	Formaldehyde	50-00-0	Y	Y	2.10E-03	lb/MBF	287,000	MBF/yr	602.7	0.30
EU-08 (Kilns) Douglas Fir	Methanol (Single HAP)	67-56-1	Y	Y	0.06	lb/MBF	287,000	MBF/yr	18023.6	9.01
EU-08 (Kilns) Douglas Fir	Propionaldehyde	123-38-6	Y	Y	9.00E-04	lb/MBF	287,000	MBF/yr	258.3	0.13
EU-08 (Kilns) Hemlock	Acetaldehyde	75-07-0	Y	Y	0.11	lb/MBF	45,000	MBF/yr	5076.0	2.54
EU-08 (Kilns) Hemlock	Acrolein	107-02-8	Y	Y	1.80E-03	lb/MBF	45,000	MBF/yr	81.0	0.04
EU-08 (Kilns) Hemlock	Formaldehyde	50-00-0	Y	Y	1.50E-03	lb/MBF	45,000	MBF/yr	67.5	0.03
EU-08 (Kilns) Hemlock	Methanol	67-56-1	Y	Y	0.08	lb/MBF	45,000	MBF/yr	3690.0	1.85

EU-08 (Kilns) Hemlock	Propionaldehyde	123-38-6	Y	Y	1.20E-03	lb/MBF	45,000	MBF/yr	54.0	0.03
EU-AIA (GDF)	2,2,4-Trimethylpentane	540-84-1	Y	Y	0.12	lb/Mgal	2,256	gal/yr	0.26	1.32E-04
EU-AIA (GDF)	Benzene	71-43-2	Y	Y	0.11	lb/Mgal	2,256	gal/yr	0.24	1.21E-04
EU-AIA (GDF)	Ethyl Benzene	100-41-4	Y	Y	0.09	lb/Mgal	2,256	gal/yr	0.20	9.78E-05
EU-AIA (GDF)	Hexane	110-54-3	Y	Y	0.28	lb/Mgal	2,256	gal/yr	0.63	3.17E-04
EU-AIA (GDF)	Toluene	108-88-3	Y	Y	0.57	lb/Mgal	2,256	gal/yr	1.29	6.46E-04
EU-AIA (GDF)	Xylenes, Total	1330-20-7	Y	Y	0.31	lb/Mgal	2,256	gal/yr	0.71	3.54E-04
EU-01 (Boilers)	2-Chlorophenol	95-57-8	N	Y	4.56E-08	lb/Mlb Steam	685000	MlbSteam/yr	0.03	1.56E-05
EU-01 (Boilers)	Acetone	67-64-1	N	Y	3.61E-04	lb/Mlb Steam	685000	MlbSteam/yr	247.3	0.12
EU-01 (Boilers)	Barium	7440-39-3	N	Y	3.23E-04	lb/Mlb Steam	685000	MlbSteam/yr	221.3	0.11
EU-01 (Boilers)	Copper	7440-50-8	N	Y	9.31E-05	lb/Mlb Steam	685000	MlbSteam/yr	63.8	0.03
EU-01 (Boilers)	Crotonaldehyde	4170-30-3	N	Y	1.88E-05	lb/Mlb Steam	685000	MlbSteam/yr	12.9	6.44E-03
EU-01 (Boilers)	Furan	110-00-9	N	Y	5.47E-10	lb/Mlb Steam	685000	MlbSteam/yr	3.75E-04	1.87E-07
EU-01 (Boilers)	Silver	7440-22-4	N	Y	3.23E-03	lb/Mlb Steam	685000	MlbSteam/yr	2212.6	1.11
EU-01 (Boilers)	Total Tetrachlorodibenzofuran	55722-27-5	N	Y	1.43E-09	lb/Mlb Steam	685000	MlbSteam/yr	9.76E-04	4.88E-07
EU-01 (Boilers)	Total Tetrachlorodibenzo-p-dioxin	41903-57-5	N	Y	8.93E-10	lb/Mlb Steam	685000	MlbSteam/yr	6.12E-04	3.06E-07
EU-01 (Boilers)	Trichlorofluoromethane	75-69-4	N	Y	7.79E-05	lb/Mlb Steam	685000	MlbSteam/yr	53.4	0.03
EU-01 (Boilers)	Vanadium (fume or dust)	7440-62-2	N	Y	1.86E-06	lb/Mlb Steam	685000	MlbSteam/yr	1.28	6.38E-04
EU-01 (Boilers)	Zinc	7440-66-6	N	Y	7.98E-04	lb/Mlb Steam	685000	MlbSteam/yr	546.6	0.27
EU-05 (VOCs) Material balance	1,2,4-Trimethyl benzene	95-63-6	N	Y	8.00	%	67.20	lb/yr	5.38	2.69E-03
EU-05 (VOCs) Material balance	1,3,5-Trimethylbenzene	108-67-8	N	Y	3.00	%	67.20	lb/yr	2.02	1.01E-03
EU-05 (VOCs) Material balance	2-methoxymethylethoxy)propanol	34590-94-8	N	Y	3.00	%	168.00	lb/yr	5.04	2.52E-03
EU-05 (VOCs) Material balance	Acetone	67-64-1	N	Y	30.00	%	2088.00	lb/yr	626.4	0.31
EU-05 (VOCs) Material balance	Acetone	67-64-1	N	Y	50.00	%	296.00	lb/yr	148.0	0.07
EU-05 (VOCs) Material balance	Acetone	67-64-1	N	Y	50.00	%	494.00	lb/yr	247.0	0.12
EU-05 (VOCs) Material balance	Acetone	67-64-1	N	Y	50.00	%	495.00	lb/yr	247.5	0.12
EU-05 (VOCs) Material balance	Acetone	67-64-1	N	Y	50.00	%	1183.00	lb/yr	591.5	0.30
EU-05 (VOCs) Material balance	Dipropylene Glycol Methyl Ether	34590-94-8	N	Y	10.00	%	2088.00	lb/yr	208.8	0.10
EU-05 (VOCs) Material balance	propanol, oxybis-	25265-71-8	N	Y	20.00	%	67.20	lb/yr	13.4	6.72E-03
EU-01 (Boilers)	2-Butanone	78-93-3	Delisted	Y	1.03E-05	lb/Mlb Steam	685000	MlbSteam/yr	7.03	3.51E-03
							<b>Total HAP</b>		7.50E+04	37.5
							<b>Total TAC</b>		8.04E+04	40.2
							<b>Single HAP (Methanol)</b>		2.79E+04	14.0