LANE REGIONAL AIR PROTECTION AGENCY
TITLE V OPERATING PERMIT
REVIEW REPORT

1010 Main St.
Springfield, OR 97477

Murphy Company – Prairie Road Panelboard Plant **Permit No. 203102**
2350 Prairie Road
Eugene, Oregon 97404
Website: https://murphyplywood.com/

Source Information:

Primary SIC	2436
Secondary SIC	4961
Primary NAICS	321212
Secondary NAICS	221330

Source Category (LRAPA Title 37, Table 1)	B.57. – Plywood manufacturing and/or veneer drying 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	Y, see permit

COMS	N
CEMS	N
Ambient monitoring	N

Reporting Requirements

Annual report (due date)	March 15th
Emission fee report (due date)	March 15th
Semi-Annual Report (due date)	August 15th
Greenhouse Gas (due date)	March 31st

Monthly report (due dates)	N
Quarterly report (due dates)	N
Excess emissions report	Immediately
Other reports	N

Air Programs

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

SM-80	N
Title V	Y
Major FHAP source	N
Federal major source	N
Type A New Source Review (NSR)	N
Type B New Source Review (NSR)	N
Prevention of Significant Deterioration (PSD)	NA
Nonattainment New Source Review (NNSR)	NA

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LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS REVIEW REPORT

ACDP	Air Contaminant Discharge Permit
AQMA	Air Quality Management Area
Act	Federal Clean Air Act
ASTM	American Society of Testing and Materials
Btu	British thermal unit
CAM	Compliance Assurance Monitoring
CAO	Cleaner Air Oregon
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CI	Compression Ignition
CMS	Continuous Monitoring System
CO	Carbon Monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
COMS	Continuous Opacity Monitoring System
CPDS	Certified Product Data Sheet
CPMS	Continuous parameter monitoring system
DEQ	Department of Environmental Quality
dscf	Dry standard cubic feet
EF	Emission factor
EPA	US Environmental Protection Agency
ESP	Electrostatic Precipitator
EU	Emissions Unit
FCAA	Federal Clean Air Act
FHAP	Federal Hazardous Air Pollutant as defined by LRAPA title 12
ft^2	Square foot
FSA	Fuel sampling and analysis
GHG	Greenhouse Gas
gr/dscf	Grain per dry standard cubic feet (1 pound = 7000 grains)
HCFC	Halogenated Chlorofluorocarbons
ID	Identification number or label
I&M	Inspection and maintenance
LAER	Lowest Achievable Emission Rate
LRAPA	Lane Regional Air Protection Agency
MACT	Maximum Achievable Control Technology
MB	Material Balance
MM	Million
MMBtu	Million British thermal units
MW	Megawatts
NA	Not applicable
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ORS	Oregon Revised Statutes
O&M	Operation and maintenance
Pb	Lead
PCD	Pollution Control Device
PM	Particulate matter
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PM_{10}	Particulate matter less than 10 microns in size
ppm	Parts per million
PSEL	Plant Site Emission Limit
psia	pounds per square inch, actual
PTE	Potential to Emit
RATA	Relative Accuracy Testing Audit
RICE	Reciprocating Internal Combustion Engine
SACC	Semi-Annual Compliance Certification
SCEMP	Surrogate Compliance Emissions Monitoring Parameter
Scf	Standard cubic foot
SDS	Safety Data Sheet
SER	Significant emission rate
SERP	Source emissions reduction plan
SI	Spark Ignition
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	Sulfur dioxide
ST	Source test
TAC	Toxic air contaminant as defined by OAR 340-245-0020(56)
TACT	Typically Achievable Control Technology
TPY	Tons per year
VDSC	Veneer Dryer Scrubber Control
VE	Visible emissions
VMT	Vehicle miles traveled
VOC	Volatile organic compounds
VHAP	Volatile hazardous air pollutant
Year	A period consisting of any 12 consecutive calendar months

INTRODUCTION

1. Murphy Company – Prairie Road Panelboard Plant ("Murphy" or "the facility") is an existing facility applying for renewal of an existing Title V federal operating permit. Upon issuance, the renewed Title V federal operating permit will be valid for 5 years.

2. In accordance with OAR 340-218-0120(1)(f), this review report is intended to provide the legal and factual basis for the draft permit conditions. In most cases, the legal basis for a permit condition is included in the permit by citing the applicable regulation. In addition, the factual basis for the requirement may be the same as the legal basis. However, when the regulation is not specific and only provides general requirements, this review report is used to provide a more thorough explanation of the factual basis for the draft permit conditions.

FACILITY DESCRIPTION

3. The Muphy Company – Prairie Road Panelboard Plant is a specialty panelboard/plywood manufacturing facility. Wall paneling and hardwood plywood is produced from veneer or manufactured board that is delivered to the facility. Paneling and plywood panels are manufactured by pressing layers of veneer or manufactured board to which glue has been applied. These panels are processed in a variety of ways, including trimming, patching, sanding, and similar activities. Some panels are sold without further finishing, while others are processed through the coating line. In the coating line, UV activated, waterborne, high solids finishes are applied to one or more of the panel faces to achieve the desired properties (color, texture, durability, etc.).

4. The facility is located in an area that is generally flat. To the north of the facility there is a mixed industrial, commercial, and residential area along with an active train track. To the east of the facility is light industrial and residential. To the south of the facility there is the Randy Papé Beltline, and a mixed industrial, commercial, and residential area. To the west of the facility there is Highway 99 and a mixed industrial, commercial area and agricultural.

GENERAL BACKGROUND INFORMATION

5. The facility is a Title V major source because potential emissions of CO exceed 100 tons per year. The facility is not a federal major source for PSD purposes because the potential emissions of any individual regulated pollutant, excluding GHGs, are less than 250 tons per year and the facility is not in a listed source category. In addition, the facility is not a major source of FHAPs, nor does it have the potential to emit above major source thresholds for FHAPs. The facility was formerly a major source of FHAPs when the facility was owned by Georgia-Pacific along with the adjacent resin manufacturing facility (now called "Bakelite Chemicals, LLC", Permit No. 203129). Murphy Company purchased the facility from Georgia-Pacific in 2006. Since this facility and Bakelite are no longer owned and operated by the same entity, the two facilities are considered separate sources for purposes of major source FHAP applicability.

6. The facility is located inside the Eugene-Springfield Air Quality Management Area. The facility is located in an area that has been designated an attainment/unclassified area for $PM_{2.5}$, ozone (VOC), NO_X, SO_2 and Pb and a maintenance area for CO and PM_{10}. The facility is located within 100 kilometers of three (3) Class I air quality protection areas: Mt. Washington Wilderness area, Three Sisters Wilderness area, and Diamond Peak Wilderness area.

7. The current permit was issued on May 2, 2019. The following changes to the permit were made during the last permit term:

Date	Permit Revision or Notification	Explanation
02/15/2024	Addendum No. 1 (Administrative Amendment – Application No. 70028)	Amendment to change the date of the source test requirement for the veneer dryers and East Fuel Cell (EU-01 and EU-01A).

EMISSIONS UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

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

EU ID	Emission Unit Description	PCD ID	Pollution Control Device Description
EU-01	**Veneer Drying Operations** Veneer Dryer #1 Veneer Dryer #2	VDSC	Packed-bed Wet Scrubber
EU-01A	**East Fuel Cell (EU-01 heat source)**	VDSC	Packed-bed Wet Scrubber
EU-02	**Plywood Production** Hot Press #1 Hot Press #2	NA	None
EU-03	**Finishing Line**	NA	None
EU-04	**Wood Residuals Conveying System A** Core Saws Skinner and Cutoff Saws Sanding Lines Groovers Big Cyclone Buffers #2 Metering Bin Cyclone	Bag-1, Bag-2, and Bag-3	Three (3) Baghouses
EU-05	**Wood Residuals Conveying System B** Metering Bin Cyclone	Bag-4	Baghouse
EU-07	**Unpaved Road Emissions**	NA	None
EU-08	**West Fuel Cell**	ESP	Dry ESP
EU-09	**Hogged Fuel Pile**	NA	Enclosed Building
EU-10	**Putty Patching Operations**	NA	None
EU-AGG	**Aggregate Insignificant (AI) Activities** #1 Natural Gas Boiler #2 Natural Gas Boiler Paper Cyclone Sample Department Cyclone Carpenter Shop Cyclone Rubber Cyclone	NA	None
CIA EU-CIA-1 EU-CIA-2 EU-CIA-3 EU-CIA-4	**Categorically Insignificant Activities** Paved Roads Diesel-Fired 48.8 Hp Emergency Generator Gas-fired 28 Hp Emergency Generator Gas-fired 28 Hp Emergency Generator	None	None

9. Veneer Drying Operations (EU-01): Veneer Dryer 1 is a COE Manufacturing, longitudinal deck, direct-heated, with four (4) decks and three (3) zones, installed in 1967. The dryer is controlled by a Packed Bed Wet Scrubber (pollution control device ID VDSC, assumed to be medium efficiency) installed in January 1975. Veneer Dryer 2 is a Moore Dry Kiln, longitudinal deck, direct-heated with five (5) decks and (1)

zone, installed in 1971. The dryer is controlled by a Packed Bed Wet Scrubber (pollution control device ID VDSC, assumed to be medium efficiency) installed in January 1975.

10. East Fuel Cell (EU-01A): Heated air produced by the sanderdust-fired and hogged fuel-fired, 34 MMBtu/hr, East Fuel Cell (EU-01A) is the heat source for the Veneer Dryers 1 and 2. Exhaust air from the dryers is partially recirculated as make-up air for the East Fuel Cell. All exhaust passes through the Packed Bed Wet Scrubber (pollution control device ID VDSC, assumed to be medium efficiency). The East Fuel Cell was installed in 1979 (NC-203102-A79).

11. Packed Bed Scrubber (VDSC): The packed bed scrubber that controls emissions from EU-01 and EU-01A was manufactured by the Georgia-Pacific Corporation and was installed in 1975. The design flow rate is 75 gallons/minute and has an inlet gas design flow rate of 26,000 acfm.

12. Plywood Production (EU-02): Plywood production consists of coating the veneer with a phenol formaldehyde resin and gluing panels together. Panels are pressed in a cold press to initiate the glue bond and are then pressed in the hot presses to produce plywood panels. The production rate of plywood for the facility is set by the renewal application at 160,000 thousand square feet (MSF) per year on a ⅜-inch basis. Press 1 was installed in 1959 with maximum hourly production of 19,672 ft^2/hr (3/8" basis). Press 2 was installed in 1978 with maximum hourly production of 19,672 ft^2/hr (3/8" basis). The press-loading operations on Press 1 and Press 2 were modified in 1996 to increase the short-term production capacity of the presses.

13. Finishing Line (EU-03): Unfinished paneling passes through a variety of coating applicators and curing ovens to be finished according to specifications. The finished product may include a topcoat, paper overlay, or wet-grain print. Coatings are applied with flooding rollers. Excess coatings are collected and recirculated to the flooding rollers. Oven #5 (color oven) was removed in November of 2018 and was not replaced.

14. Wood Residuals Conveying System A (EU-04): The wood residuals conveying system "A" includes the collection and routing of residuals from saws, sanders and cyclones. The table below shows the devices, materials, installation dates, and descriptions.

Device Description	Material	Year Installed	Max Rated Design Capacity	Description
Core Saw (SAW-1)	Sawdust	1961	NA	Sawdust from SAW-1
Core Saw (SAW-2)	Sawdust	1978	NA	Sawdust from SAW-2
Skinner & Cut-off Saws (SL-1)	Sawdust & Trim	1961	NA	Trim from SL-1 is conveyed to the hogger
#1 Sanding Line (SD-1)	Sanderdust	1972	NA	Sanderdust from SD-1
#2 Sanding Line (SD-2)	Sanderdust	2015	NA	Sanderdust from SD-2
#3 Sanding Line (SD-3)	Sanderdust	2010	NA	Sanderdust from SD-3
#1 & #3 Groovers (GR-1 &GR-3)	Sawdust	1977	NA	Sawdust from GR-1 and GR-3
#2 Groover (GR-2)	Sawdust	1961	NA	Sawdust from GR-2

Device Description	Material	Year Installed	Max Rated Design Capacity	Description
Big Cyclone (BC-1)	Wood Residuals	1976	27,000 cfm	Sawdust is collected by the high efficiency cyclone
Buffers 1 and 2 (BF-1, BF-2)	Particulate Dust	1977	NA	Sawdust from BF-1 and BF-2
#2 Metering Bin Cyclone (MB-2)	Sanderdust	1974	4,300 lbs/hr	Sanderdust is pneumatically conveyed to MB-2.

The following table summarizes the baghouse information for the wood residuals conveying system A (EU-04):

Device Description	ID Number	Manufacturer	Year Installed	Design Air-to-Cloth Ratio	Design Inlet Gas Flow Rate (acfm)
Baghouse	Bag-1	Carter Day	1972	10:1	30,600
Baghouse	Bag-2	Carter Day	1983	10:1	30,600
Baghouse	Bag-3	Clarke's	1976	8:1	27,000

15. Wood Residuals Conveying System B (EU-05): The wood residuals conveying system "B" includes the collection and routing of residuals from the #1 Metering Bin Cyclone. The table below shows the devices, materials, installation dates, and descriptions:

Device Description	Material	Year Installed	Max Rated Design Capacity	Description
#1 Metering Bin Cyclone (MB-1)	Hogged Fuel/ Sanderdust	1971	4,300 lbs/hr	Hogged Fuel/Sanderdust is pneumatically conveyed to MB-1. Cyclone exhausts to East Fuel Cell Baghouse.

The following table summarizes the baghouse information for the above material-handling system:

Device Description	ID Number	Manufacturer	Year Installed	Design Air-to-Cloth Ratio	Design Inlet Gas Flow Rate (acfm)
Baghouse	Bag-4	Clarke's	1976	8:1	7,850

16. Unpaved Road Emissions (EU-07): This emission unit includes the vehicular traffic on unpaved roads around the plant that causes fugitive particulate matter emissions. Emissions are based on vehicle miles traveled (VMT).

17. West Fuel Cell (EU-08): This emissions unit burns hogged fuel including plywood trim and sanderdust in a suspension firing method. Hot combustion gases are exhausted to the heat recovery boiler or the combustion gas-to-air heat exchanger. Steam from the heat recovery boiler is used to heat the Plywood Presses (EU-02). Heated air from the combustion gas-to-air heat exchanger is used in the Finishing Line (EU-03). Some hot gas is recirculated to the heat cell, while the rest is exhausted to the inlet to the Dry Electrostatic Precipitator (ESP). The fuel cell was installed in 1975 and has a rated capacity of 34 MM

Btu/hr. The two-field ESP manufactured by PPC Industries (Model # RH-1212-2S) was installed in 2003 and has a rated efficiency of 95%. The design inlet gas flow rate is 20,000 ACFM.

18. Hogged Fuel Pile (EU-09): The facility has a hogged fuel pile with material stored in an enclosed building.

19. Putty Patching Operations (EU-10): The facility conducts patching using putty on various products.

20. Mill Sources subject to Board Products Rule: The emissions units and devices subject to the Board Products Rule in title 33 includes Veneer Dryers (EU-01 and 01A), Plywood Presses (EU-02), Residuals Handling (EU-04 and 05), West Fuel Cell (EU-08), and Hogged Fuel Pile (EU-09) for the purposes of the Title 33 Board Products Rule (1.0 lb/MSF - 3/8" basis).

21. Aggregate Insignificant Activities (EU-AGG): Activity includes natural gas-fired Boilers 1 and 2 (NG-1 and NG-2), and various cyclones (MC-1 through MC-4), as listed below:

Device Description	Material	Design Gas Flow Rate/Max Design Capacity	Year Installed	Description
Natural Gas Boiler 1 (NG-1)	Natural Gas	3.8 MMBtu/hr	1972	Steam is supplied to the hot presses at 175 psi and 370˚F. Hot gases are exhausted to the atmosphere. The boiler is used as a backup for the Plywood Presses (EU-02) and is operated less than 1,500 hours per year.
Natural Gas Boiler 2 (NG-2)	Natural Gas	3.8 MMBtu/hr	1978	Steam is supplied to the hot presses at 175 psi and 370˚F. Hot gases are exhausted to the atmosphere. The boiler is used as a backup for the Plywood Presses (EU-02) and is operated less than 1,500 hours per year.
Paper Cyclone (MC-1)	Paper trimmings	3 BDT/year	1977	This process cyclone collects excess paper from the laminating machine.
Sample Department Cyclone (MC-2)	Particulate Matter	1 BDT/year	1961	This process cyclone collects particulate generated by the sample department.
Carpenter Shop Cyclone (MC-3)	Sawdust	2 BDT/year	1989	This process cyclone collects sawdust generated in the carpenter shop.
Rubber Cyclone (MC-4)	Particulate Matter	2 Ton/year	1961	This process cyclone collects particulate generated in roller conditioning.
Resin Storage Tanks (EU-2C)	Plywood Resin	8 MM lbs/year	Unknown	Various resin storage tanks

22. Categorically Insignificant Activities (CIA): The facility has one (1) diesel-fired emergency generator and two (2) natural gas-fired emergency generators that are only permitted to operate during emergencies and for 100 hours of maintenance and readiness testing a year. The facility also has paved roads which were previously included in EU-07 and the PSELs, but have been moved to CIA and removed from the PSELs with this renewal.

ALTERNATE OPERATING SCENARIOS

23. This facility does not have any alternate operating scenarios.

AGGREGATE INSIGNIFICANT EMISSIONS

24. The emissions estimates from the activities included in the aggregate insignificant emissions unit (EU-AGG) are as follows:

Emissions Source	Pollutants (tons/yr)						
	PM	PM_{10}	$PM_{2.5}$	VOC	NO_X	SO_2	CO
Boilers 1 and 2	0.01	0.01	0.01	0.03	0.57	0.01	0.48
Rubber Cyclone	0.0005	0.0003	0.0001	NA	NA	NA	NA
Sample Department Cyclone	0.0003	0.0001	0.0001	NA	NA	NA	NA
Carpenter Shop Cyclone	0.0005	0.00025	0.000125	NA	NA	NA	NA
Paper Cyclone	0.0005	0.00025	0.000125	NA	NA	NA	NA
Resin Storage Tanks	NA	NA	NA	0.0106	NA	NA	NA
Totals	**0.02**	**0.02**	**0.02**	**0.031**	**0.57**	**0.01**	**0.48**

CATEGORICALLY INSIGNIFICANT ACTIVITIES

25. The facility has the following categorically insignificant activities:

- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under OAR Chapter 340, Divisions 218 and 220, and LRAPA Titles 12 through 51, excluding Title 43, o0r less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
- Evaporative and tail pipe emissions from on-site motor vehicle operation
- Distillate oil, kerosene, gasoline, natural gas or propane burning equipment, provided the aggregate expected actual emissions of the equipment identified as categorically insignificant do not exceed the de minimis level for any regulated pollutant, based on the expected maximum annual operation of the equipment. If a source's expected emissions from all such equipment exceed the de minimis levels, then the source may identify a subgroup of such equipment as categorically insignificant with the remainder not categorically insignificant including:
    - Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr;
- Office activities
- Instrument calibration
- Food service activities;
- Personal care activities;
- Janitorial activities;
- Grounds-keeping activities including but not limited to building, painting, and road and parking lot maintenance;
- Maintenance and repair shop;
- Automotive repair shops or storage garages;
- Air-cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment;
- Refrigeration systems with less than 50 pounds of charge or ozone-depleting substances regulated under Title VI of the CAA (Stratospheric Ozone Protection), including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems;
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum processing devices but excluding research and development facilities;
- Temporary construction activities;
- Warehouse activities;
- Accidental fires;
- Air vents from air compressors;
- Air purification systems;
- Electrical charging stations;
- Instrument air dryers and distribution;

- Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly-scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking;
- Electric motors;
- Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids;
- Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment;
- Pressurized tanks containing gaseous compounds;
- Emergency generators and pumps used only during loss of primary equipment or utility service, including:
    - One (1) diesel-fired 48.8 Hp emergency generator (CIA-2): The facility has a diesel-fired generator to provide electrical power to the administrative building in the event of an interruption of power service. The generator is a 48.8 Hp internal combustion engine installed in 2018. This emergency generator was installed after June 12, 2006 and is subject to the RICE NESHAP (subpart ZZZZ) and the RICE NSPS (subpart IIII). This activity is considered to be a Categorically Insignificant Activity (CIA) as per the definition of CIA in LRAPA title 12, Item UU.
    - Two (2) natural gas-fired 28.0 Hp emergency generators (CIA-3 and CIA-4): The facility has two (2) natural gas-fired generators to provide electrical power to two (2) server rooms in the event of an interruption of power service. The generators are each a 28.0 Hp internal combustion engine installed in the 1990s. These emergency generators are subject to the RICE NESHAP (subpart ZZZZ), but not the RICE NSPS (subpart JJJJ) due to their installation dates. This activity is considered to be a Categorically Insignificant Activity (CIA) as per the definition of CIA in LRAPA title 12, Item UU.
- Vacuum sheet stacker vents;
- Emissions from waste water discharges to publicly-owned treatment works (POTW) provided the facility is authorized to discharge to the POTW, not including on-site waste water treatment and/or holding facilities;
- Storm water settling basins;
- Fire suppression and training;
- Paved roads and paved parking lots within an urban growth boundary;
- Hazardous air pollutant emissions of fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils;
- Health, safety, and emergency response activities;
- 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;
- Industrial cooling towers that do not used chromium-based water treatment chemicals;
- Uncontrolled oil/water separators in effluent treatment systems;
- On-site storage tanks not subject to any NSPS, including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles; and
- Combustion source flame safety purging on startup

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING

26. 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.

27. 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

28. 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.

29. 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.

30. 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

31. The facility is 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 to be completed at least once a week. 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.

32. The facility 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 plant survey of visible emissions using EPA Method 22 to be completed at least once a quarter. 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. In addition, the permittee must prepare and maintain an Operation & Maintenance Plan (O&M Plan) for all particulate matter emission control devices at the facility.

33. The non-fuel burning equipment at this source that emit particulate matter are subject to particulate matter emission limitations under subsection 32-015(2):
    - 33.a. For sources installed, constructed, or modified on or after June 1, 1970 but prior to April 16, 2015 for which there are representative compliance source test results that are no greater than 0.080 grains per dry standard cubic foot, the particulate matter emission limit is 0.10 grains per dry standard cubic foot; and
    - 33.b. For sources installed, constructed, or modified after April 16, 2015, the particulate matter emission limit is 0.10 grains per dry standard cubic foot.
    - 33.c. The current list of emission units subject to the 0.10 grains per dry standard cubic foot limit are as follows:
        - 33.c.i. EU-01 Veneer Dryers;
        - 33.c.ii. EU-01A East Fuel Cell;

33.c.iii. EU-04 and EU-05 (Wood Residuals Conveying System A and Wood Residuals Conveying System B); and
33.c.iv. EU-08 West Fuel Cell.

34. The facility 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.

35. Compliance demonstration with the particulate matter emission limitations under Item 33 will include:
35.a. Veneer Drying Operations (EU-01): The permittee must control particulate matter emissions from these activities using a packed-bed wet scrubber (VDSC). The permittee must monitor the gas temperature in the scrubber at least once per week. If the gas temperature is not within the operating range listed in the permit, the permittee must take corrective action. The permittee must prepare and maintain an O&M Plan for each particulate matter emission control device associated with this process.
35.b. Plywood Production (EU-02): The permittee must perform a plant survey of visible emissions as discussed in Item 31 that includes these emission units.
35.c. Wood Residuals Conveying System A & B (EU-04 and EU-05): The permittee must control particulate matter emissions from these emission units using a baghouse. The permittee must monitor and record pressure drop across the baghouse controlling particulate matter emissions from this emission unit at least once per day. If the pressure drop is not within the operating range listed in the permit, the permittee must take corrective action.
35.d. West Fuel Cell (EU-08): The permittee must control particulate matter emissions from this emissions unit using a dry electrostatic precipitator (ESP). The permittee must monitor the voltage and amperage readings and ensure that the values are consistent with manufacturer's recommendations for good operations.
35.e. Unpaved Road Emissions (EU-07) and Hogged Fuel Pile (EU-09): The permittee must perform a plant survey of visible emissions as discussed in Item 31 that includes these emission units.
35.f. Putty Patching Operations (EU-10): The permittee must record material usage and use data sheets to estimate emissions.
35.g. Insignificant Emission Units: Categorically insignificant activities and aggregate insignificant activities do not require the same level of compliance demonstration as significant emission units. Compliance for these emission units with the particulate matter emission limitation, as applicable, will be demonstrated by compliance with the visible emission limitations as discussed in Item 32

<u>Board Products Rules</u>

36. The emissions units and devices subject to the Board Products Rule in title 33 for "Other Sources" include Plywood Production (EU-02), the Residuals Conveying System A & B (EU-04 and EU-05), and the Hogged Fuel Pile (EU-09):
36.a. No person may cause to be emitted particulate matter from veneer and plywood mill sources, including but not limited to, sanding machines, saws, presses, barkers, hogs, chippers and other material size reduction equipment, process or space ventilation systems, and truck loading and unloading facilities in excess of a total from all sources within the plant site of an average hourly emission rate (pounds/hour) based on the maximum hourly production capacity of the facility times one (1.0) pound per 1000 square feet of production. Production is expressed in terms of 1000 square feet of plywood or veneer production on a 3/8 inch basis of finished product equivalent. The maximum hourly production capacity is the maximum production capacity for a typical operating shift divided by the number of hours in the operating shift. Monitoring of hourly production rates in terms of 1000 square feet of plywood or veneer production on a 3/8 inch basis of finished product equivalent will be used to ensure compliance.

36.b. The facility is limited to 55.0 lb/hour based on a maximum hourly production rate for veneer and plywood at 55,000 MSF/hour on a 3/8" basis. The emission details include more information on the setting of the limit under the Board Products Rule.

37. The veneer dryers in EU-01 are subject to the veneer dryer opacity limitation from LRAPA title 33: 10% average opacity, 2 days within any 12-month period separated by at least 30 days.

38. The direct-fired veneer dryers in EU-01 are subject to the wood-fired veneer dryer PM limitation from LRAPA title 33:
38.a. 0.75 pounds per 1000 square feet of veneer dried (3/8" basis) for units using fuel which has a moisture content equal to or less than 20 percent by weight on a wet basis as measured by ASTM D442-84; or
38.b. 1.50 pounds per 1000 square feet of veneer dried (3/8" basis) for units using fuel which has a moisture content of greater than 20 percent by weight on a wet basis as measured by ASTM D442-84.

Typically Achievable Control Technology (TACT)

39. 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.
39.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: Plywood Production (EU-02), EU-03 Finishing Line, Wood Residuals Conveying System A (EU-04), Wood Residuals Conveying System B (EU-05), EU-07 Unpaved Road Emissions (EU-07), Hogged Fuel Pile (EU-09), and Putty Patching Operations (EU-10).
39.b. The veneer dryers in EU-01 and the East Fuel Cell in EU-01A emit greater than five (5) tons per year of particulate and greater than ten (10) tons per year of VOC, NO_X, and CO. However, the veneer dryers in EU-01 are subject to the grain loading standard in title 32 and therefore are not subject to TACT for PM. While LRAPA has not performed a formal TACT determination for VOC, NO_X and CO from these emission units, LRAPA has determined that good combustion practices work practices likely meet TACT for direct-fired veneer dryers of this size.
39.c. The West Fuel Cell in EU-08 was constructed prior to January 1, 1994. Therefore, since emissions from CO and NO_X are greater than 10 tons/year TACT may be considered applicable to EU-08. While LRAPA has not performed a formal TACT determination for NO_X and CO from these emission units, LRAPA has determined that good combustion practices and biennial tune-ups, along with the dry ESP likely meet TACT for boilers of this size.

40. 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.
40.a. The following emission units are not subject to TACT because they do not have emissions of any criteria pollutant equal to or greater than one (1) ton per year: EU-CIA Categorically Insignificant Activities, EU-AIA Aggregate Insignificant Activities.

EMISSION LIMITS FOR INSIGNIFICANT ACTIVITIES

41. As identified earlier in this Review Report, this facility has insignificant emissions units (IEUs) that include categorically insignificant activities and aggregate insignificant emissions, as defined in LRAPA title 12 and/or OAR 340-200-0020. For the most part, the standards that apply to IEUs are for opacity (20% limit) and particulate matter (0.14 gr/dscf limit). 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.

FEDERAL REQUIREMENTS

Chemical Accident Prevention Provisions

42. 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 Ozone-Depleting Substances

43. 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)

44. A facility that has potential emissions of FHAP greater than the major source thresholds of 10 tons per year of an individual FHAP or 25 tons per year of the aggregate of all FHAP is classified as a major source. The facility is considered an area or minor source of FHAP.

40 CFR part 63 subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants: Boiler Area Sources

45. Boiler Area Source NESHAP (40 CFR 63 Subpart JJJJJJ) is applicable to the West Fuel Cell (EU-08) at this facility and all requirements have been incorporated into the permit. The facility complied with the requirement to conduct an initial tune-up on September 14, 2011 and is required to continue to conduct biennial tune-ups. The facility complied with the one-time energy assessment requirement on November 6, 2013.

46. The Boiler Area Source NESHAP is not applicable to the East Fuel Cell (EU-01A) because that unit does not meet the definition of a "boiler" under 40 CFR 63.11237 since that unit does not heat water to recover thermal energy in the form of steam and/or hot water.

47. The 40 CFR part 63 subpart JJJJJJ requirements that are applicable to Emission Unit EU-08 are identified in the following table:

40 CFR part 63 subpart JJJJJJ Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
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	No	None.	NA
63.11201	Standards	No	None.	NA
63.11205	General requirements	Yes	None.	44
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
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	45
63.11224	Monitoring installation, operation, and maintenance requirements	No	None.	NA
63.11225	Notification, reporting, and recordkeeping requirements	Yes	None.	46, 47
63.11226	Reserved	No	None.	NA
63.11235	General Provision applicability	Yes	None.	48

40 CFR part 63 subpart JJJJJJ Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.11236	Implementation and enforcement	No	None.	NA
63.11237	Definitions	Yes	None.	NA

40 CFR part 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

48. RICE NESHAP (40 CFR 63 Subpart ZZZZ) is applicable to this facility as an area source of FHAPs, and all requirements have been incorporated into the permit. The facility has two (2), 28.0 Hp natural gas-fired emergency generators, CIA-3 and CIA-4, that are subject to the requirements under this subpart. Based upon the definition of an emergency generator under Title 12 Subpart UU, these emission units are not allowed to operate for non-emergency situations. Non-emergency situations do not include maintenance and testing.

49. The 40 CFR part 63 subpart ZZZZ requirements that are applicable to CIA-3 and CIA-4 are identified in the following table:

40 CFR Part 63, subpart ZZZZ Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.6580	Purpose	Yes	None.	NA
63.6585	Applicability	Yes	None.	NA
63.6590	Applicability	Yes	None.	NA
63.6600	Emission limitations	No	None.	NA
63.6601	Emission limitations	No	None.	NA
63.6602	Emission limitations	No	None.	NA
63.6603	Emission limitations	Yes	Work Practice Requirements	51
63.6604	Fuel requirements	No	None.	NA
63.6605	General requirements	Yes	None.	55, 60
63.6610	Initial compliance	No	None.	NA
63.6611	Initial performance test	No	None.	NA
63.6612	Initial performance test	No	None.	NA
63.6615	Subsequent performance tests	No	None.	NA
63.6620	Performance test procedures	No	None.	NA
63.6625	Monitoring and maintenance requirements	Yes	Oil Analysis Program Option, Operate According to Mfg. Instructions, Non-resettable Hour Meter Installation	52, 53, 54
63.6630	Initial compliance	No	None.	NA
63.6635	Continuous compliance	No	None.	NA
63.6640	Continuous compliance	Yes	None.	56
63.6645	Notifications	No	None.	NA
63.6650	Reports	No	None.	NA
63.6655	Records	Yes	None.	57, 58
63.6660	Record retention	Yes	None.	59
63.6665	General provisions	No	None.	NA

40 CFR Part 63, subpart ZZZZ Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
63.6670	Implementation and enforcement	No	None.	NA
63.6675	Definitions	No	None.	NA

40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

50. RICE NSPS (40 CFR 60 Subpart IIII) is applicable to this facility as an area source of FHAPs, and all requirements have been incorporated into the permit. The facility has one (1), 48.8 Hp diesel-fired emergency generator, CIA-2, that is subject to the requirements under this subpart. Based upon the definition of an emergency generator under Title 12 Subpart UU, this emission unit is not allowed to operate for non-emergency situations. Non-emergency situations do not include maintenance and testing.

51. The 40 CFR part 60 subpart IIII requirements that are applicable to CIA-2 are identified in the following table:

40 CFR part 60 subpart IIII Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
60.4200	Subpart applicability	Yes	None.	NA
60.4201	Emission standards (non-emergency engines)	No	None.	NA
60.4202	Emissions standards (emergency engine)	Yes	None.	NA
60.4203	Emission standards (manufacturer)	No	None.	NA
60.4204	Emission (non-emergency engine)	No	None.	NA
60.4205	Emission standards (emergency engines)	Yes	Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards in 40 CFR 89.112 and 40 CFR 89.113.	61
60.4206	Emission standards	Yes	The emission standards are applicable for the life of the engine.	63
60.4207	Fuel requirements	Yes	Must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.	64
60.4208	Requirements	No	None.	NA
60.4209	Monitoring requirements	Yes	Installation of a non-resettable hour meter.	65
60.4210	Compliance requirements (manufacturer)	No	None.	NA
60.4211	Compliance requirements	Yes	None.	66

40 CFR part 60 subpart IIII Citation	Description	Applicable to Source (Yes/No)	Comments	Permit Condition
60.4212	Testing requirements	No	None.	NA
60.4213	Testing methods	No	None.	NA
60.4214	Notification, reporting, and recordkeeping requirements	Yes	None.	67
60.4215	Special requirements	No	Engine is not located in the listed geographic areas.	NA
60.4216	Special requirements	No	Engine is not located in the listed geographic areas.	NA
60.4217	Special requirements	No	Engine does not use special fuels.	NA
60.4218	General provisions	Yes	None.	NA
60.4219	Definitions	Yes	None.	NA

Toxics Release Inventory (TRI)

52. The Toxics Release Inventory (TRI) is 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; or
- 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. This facility reported the following pollutants and associated amounts to the TRI program for the 2022 calendar year:

- Ammonia = 5 pounds per year;
- Formaldehyde = 10,529 pounds per year; and
- Methanol = 17,288 pounds per year.

COMPLIANCE ASSURANCE MONITORING

53. 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:

53.a. The unit is subject to an emission limitation or standard for a regulated air pollutant;
53.b. The unit uses a control device to achieve compliance with that emission limitation or standard;
53.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
53.d. The exemptions in 40 CFR 64.2(b) and LRAPA 35-0200(2) do not apply. The exemptions include:
  53.d.i. Emission limitations or standards proposed by EPA after November 15, 1990 under section 111 (NSPS) or section 112 (NESHAPs);
  53.d.ii. Stratospheric ozone protection requirements under Title VI;
  53.d.iii. Acid Rain Program requirements;
  53.d.iv. Emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by US EPA;
  53.d.v. An emissions cap that meets the requirements in 40 CFR 70.4(b)(12);
  53.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
  53.d.vii. Municipally-owned backup utility emission units meeting the requirements under 40 CFR 64.2(b)(2).

54. The following table evaluates CAM applicability for all significant emission units at the facility. For Residuals Handling A and Residuals Handling B (Emission Units EU-04 and EU-05), CAM applies to the baghouses controlling particulate matter. The permit includes CAM requirements for the applicable units and/or control devices.

Emission Unit	Uses a Control Device for a Regulated Pollutant	Regulated Pollutant	Uncontrolled Potential Emissions Exceed Major Source Threshold	Is there an Emission Limitation or Standard Applies for this Pollutant	Subject to CAM for the Pollutant
EU-01and EU-01A	Yes	$PM/PM_{10}/PM_{2.5}$	No	Yes	No
EU-02	No	--	--	--	NA
EU-03	No	--	--	--	NA
EU-04	Yes	$PM/PM_{10}/PM_{2.5}$	Yes	Yes	Yes
EU-05	Yes	$PM/PM_{10}/PM_{2.5}$	Yes	Yes	Yes
EU-07	No	--	--	--	NA
EU-08	Yes	$PM/PM_{10}/PM_{2.5}$	No	Yes	No
EU-09	No	--	--	--	NA
EU-10	No	--	--	--	NA
AI Activities (EU-AGG)	No	--	--	--	NA
CIA-Emergency Generators	No	--	--	--	NA

54.a.i. The pressure drop across the baghouses must be recorded daily whenever the material handling devices and activities in EU-04 and EU-05 are in operation. The facility is required to take corrective action if the daily pressure drop across the baghouses is outside the normal operating ranges detailed in the permit. Annual inspections must be conducted of the baghouses for signs of physical degradation that could affect the performance of the control device. Records must be maintained of all parameters monitored, excursions, corrective actions taken, and inspection and maintenance activities.

CURRENT PLANT SITE PRODUCTION

55. The facility can be operated as much as 24 hours per day, 7 days per week, and 52 weeks per year. The production rates used as a basis for determining the facility capacity and PSELs are as follows:

Production or Process Parameter	Period	Rate	Units
Plywood Production	Annual	160,000	MSF - 3/8" basis
Veneer Dried	Annual	120,000	MSF - 3/8" basis

PLANT SITE EMISSION LIMITS (PSEL)

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

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)			Capacity (tons/yr)
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase Over Netting Basis (tons/yr)	
PM	56	40	40	33	33	0	33
PM_{10}	49	34	34	33	33	0	33
$PM_{2.5}$	NA	29	24	14	13	0	13
CO	81	82	81	172	172	0	172
NO_x	50	50	50	48	48	0	48
SO_2	1.5	1.5	1.5	39	6.0	0	5.0
VOC	754	139	79	50	50	0	50
GHG	34,849	34,849	34,849	74,000	40,293	5,444	40,293

56.a. The baseline emission rates for PM, PM_{10}, CO, NO_X, SO_2, and VOC were determined in previous permitting actions and there are no changes. The Emission Details at the end of this Review Report contains the emission units and rates in the 1978 baseline. A baseline emission rate is not required for $PM_{2.5}$ in accordance with the definition of "baseline emission rate" in LRAPA title 12.

56.b. The GHG baseline emission rate is based upon actual emissions from the 2010 calendar year and accounts for hogged fuel, natural gas, and propane combustion at the facility. The Emission Details at the end of this Review Report contains the emission units and rates in the 2010 GHG baseline.

56.c. The proposed netting basis for PM, PM_{10}, NO_x, SO_2, and GHG are the same as the previous netting basis. However, the netting basis for CO was revised from 82 tons/year to 81 tons/year with this renewal to reflect the correct amount established in the 1978 baseline emission rate.

56.d. The netting basis for $PM_{2.5}$, and VOC are reduced by the unassigned emissions that are reduced in accordance with LRAPA 42-0055(3)(a).

56.e. The previous netting basis for $PM_{2.5}$ was established in the previous renewal using the procedure specified in the definition of "netting basis" in LRAPA title 12.

56.f. The PSELs for this facility were previously established under the previous renewal. Under the regulations allowed at that time, PSEL were established one of two ways: (1) For sources with a PTE less than the SER that request a source specific PSEL, the source specific PSEL was set equal to the generic PSEL level, or (2) For sources with PTE greater than or equal to the SER, the source specific PSEL was set equal to the source's PTE, netting basis or a level requested by the applicant, whichever was less, except as allowed by rule. The PSEL SO_2 was previously set at the generic PSEL level. Under the rules adopted by LRAPA on April 11, 2024, sources subject to an LRAPA Title V Operating Permit will have their PSEL set equal to the source's PTE, netting basis or a level requested by the applicant, whichever is less, except as allowed by rule.

56.g. The PSELs for Single HAP and Total HAP are removed with this renewal since the facility does not currently have the potential to emit above the major source thresholds for those categories.

UNASSIGNED EMISSIONS AND EMISSION REDUCTION CREDITS

57. The facility has unassigned emissions as shown 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. Unassigned emissions are established with this renewal and reduced to no more than the significant emission rate (SER). They will be established again and reduced to no more than the SER at the following renewal in accordance with LRAPA title 42 (Section 42-0055).

Pollutant	PSEL (tons/yr)	Previous Unassigned Emissions (tons/yr)	Proposed Unassigned Emissions (tons/yr)	Previous ERCs (tons/yr)	Proposed ERCs (tons/yr)
PM	33	7	7.4	--	--
PM_{10}	33	1	1.4	--	--
$PM_{2.5}$	13	15	0	--	--
CO	172	--	--	--	--
NO_x	48	--	--	--	--
SO_2	5.0	--	--	--	--
VOC	50	89	40	--	--
GHG	40,293	--	--	--	--

SIGNIFICANT EMISSION RATES

58. The proposed PSEL increase over the netting basis is less than the Significant Emission Rate (SER) as defined in LRAPA title 12 rules for all of the pollutants as shown in the following table:

Pollutant	Netting Basis (tons/year)	Proposed PSEL (tons/year)	Increase from Netting Basis (tons/year)	SER (tons/year)
PM	40	33	0	25
PM_{10}	34	33	0	15
$PM_{2.5}$	9	13	4	10
CO	81	172	91	100
NO_x	50	48	0	40
SO_2	1.5	5.0	3.5	40
VOC	79	50	0	40
GHG	34,849	40,293	5,444	75,000

HAZARDOUS AIR POLLUTANTS (HAPS)/TOXIC AIR CONTAMINANTS (TAC)

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

LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and 2020 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in rule. All 187 hazardous air pollutants are on the list of approximately 600 toxic air contaminants. 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.

60. The table below represents the potential emissions of FHAP/CAO TACs from the facility, excluding potential emissions from Categorically Insignificant Activities.

CAS/DEQ Number	Pollutant	PTE (tons/year)	FHAP	CAO TAC
Organics				
75-07-0	Acetaldehyde	2.4	Yes	Yes
107-02-8	Acrolein	0.2	Yes	Yes
50-00-0	Formaldehyde	5.5	Yes	Yes
67-56-1	Methanol	6.0	Yes	Yes
108-95-2	Phenol	0.02	Yes	Yes
91-20-3	Naphthalene	2.1E-04	Yes	Yes
123-38-6	Propionaldehyde	0.01	Yes	Yes
NA	Other HAPs/TACs	4.3	Yes	Yes
	Total (tons/year) =	**19.1**	**19.1**	**19.1**

TITLE V PERMIT CHANGE LOG

61. Condition-by-Condition Changes: A list of condition-by-condition changes between the previous permit and the draft permit was not completed for this renewal. The draft permit for this renewal was created using the current permit template format and the changes were not tracked due to the extensive revisions to the formatting and condition numbering.

GENERAL RECORDKEEPING REQUIREMENTS

62. 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

63. 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

64. This facility is regularly inspected by LRAPA and occasionally by other regulatory agencies. The following table indicates the full compliance evaluations of this facility since 2012:

Type of Inspection	Date	Results
LRAPA - Full Compliance Evaluation	08/31/2012	In Compliance
LRAPA - Full Compliance Evaluation	10/02/2014	In Compliance
LRAPA - Full Compliance Evaluation	08/29/2016	In Compliance
LRAPA - Full Compliance Evaluation	09/30/2018	In Compliance
LRAPA - Full Compliance Evaluation	09/03/2020	In Compliance
LRAPA - Full Compliance Evaluation	03/25/2022	In Compliance
LRAPA - Full Compliance Evaluation	07/20/2024	To Be Determined by 9/30/2024

65. As of the date of this permit issuance, there are no open enforcement actions or non-compliances for this facility.

66. LRAPA has issued the following violation notices and/or taken the following enforcement actions against this facility:

66.a. The facility was issued Notice of Violation No. 02-2367 on March 15, 2002 for the emission of PM in excess of 0.1 grain per standard cubic foot, corrected to 12% CO_2 or 50% excess air, from emission unit EU-08. The facility installed a Dry ESP and retested to show compliance with the above referenced standard.

66.a.i. On December 18 and 19, 2001, the facility conducted a source test on the West Fuel Cell that showed emissions greater than the 0.1 gr/dscf exhaust gas corrected to 50% excess air or 12% CO_2. The facility entered into a Stipulated and Final Order (SFO No. 02-2367) with LRAPA in which it was agreed a Dry ESP would be installed. A Notice of Completed Construction was received by LRAPA on July 7, 2003, for the Dry ESP. The

control device and West Fuel Cell were tested on August 26, 2003. The test showed that the unit was in compliance with the 0.1 grain-loading standard and now the current 0.10 grain-loading standard.

66.b. The facility was issued Notice of Noncompliance (NON) No. 3218 on September 17, 2010 for failing to include affirmation of compliance with the permit "General Conditions"; failing to submit Title V renewal application in a timely manner; and failing to recognize intermittent compliance in semi-annual certifications. Murphy submitted an account addressing the deficiencies. It was agreed that an acknowledgment of the deficiencies and subsequent inclusion of required report corrections was sufficient to reconcile, and the Notice of Non-Compliance was closed.

SOURCE TEST RESULTS

67. The emission detail sheets attached to this review report contain a summary of the compliance and emission factor verification testing conducted at the facility.

68. The permit requires the facility to verify emission factors (EF) for the Veneer Dryer Operations (EU-01) and the Plywood Production (EU-02) for VOC within 18 months of the veneer dryer(s) startup. The Veneer Dryer Operations (EU-01) and the East Fuel Cell (EU-01A) have not been operating since February 2023. The EF verification testing is in accordance with the once/term testing frequency specified in Oregon's Title V Monitoring and Testing Guidance since the EU's have pollutant-specific emissions of greater than 10 tons/year.

69. The permit requires the facility to conduct particulate matter (grain loading) compliance testing for the West Fuel Cell (EU-08) within 18 months of the Veneer Dryer Operations (EU-01) startup to coincide with the emission factor verification testing. However, the permit requires the facility to conduct the testing no later than within 12 months of permit expiration as a contingency should the Veneer Dryer Operations not be restarted during the permit term.

PUBLIC NOTICE

70. This permit was on public notice from September 11, 2024 to October 17, 2024. Comments were submitted in writing during the comment period. No public hearing was requested by at least ten (10) persons or an organization representing at least ten (10) persons. After the comment period, LRAPA reviewed the comments but did not make any changes to the permit.

Public Comments Summary and LRAPA Responses

[All public comments that were received for this action are a public record and are retained with the public permit review files. Public comments that are not related to the review report or proposed permit, such as those comments that are statements of fact or express an opinion, are not presented in this document, and do not require a response from LRAPA.]

Comment 1: The commenter asked if the cumulative air pollutants from all industries in a given area are considered when issuing the permit.

Response 1: Cumulative air pollutants from all industries near the facility were not considered as part of the renewal for this permit because the facility is not modifying their operations or asking for an increase in emissions above the SER for this permitting action.

For criteria pollutants, sources may be required to conduct a competing source analysis to show that their emissions, when considering emissions from other permitted sources' nearby, do not cause or contribute to an exceedance of any National Ambient Air Quality Standard (NAAQS). This facility does not have emission levels of any criteria pollutant that requires a competing source analysis as their emissions are well below any significant levels that would trigger this analysis.

Additionally, for air toxics regulated under Cleaner Air Oregon (CAO), LRAPA may not consider cumulative impacts since that aspect was limited by the Oregon legislature though SB 1541 in 2018 so that Oregon Department of Environmental Quality (DEQ) may only consider cumulative toxics impacts in one area of the state that meets certain requirements. This facility is in an area that is not eligible for consideration to be included in the Cumulative Health Risk Pilot (CHRP) to be analyzed by DEQ. More information on the CHRP project is available on DEQ's website here:

https://www.oregon.gov/deq/aq/air-toxics/pages/chrp.aspx

Comment 2: The commenter asked if LRAPA can provide a map with all the industries along Prairie Road and off Highway 99 from Chambers in Eugene to Junction City and the annual pollutant concentrations from those industries.

Response 2: LRAPA does not have a map of permitted sources and non-permitted industries that we can provide as part of this permit action. LRAPA also does not have air concentrations of pollutants emitted from all permitted sources or non-permitted industries. Sources report annual mass emissions to the atmosphere (in ton/year) each calendar year not annual concentrations in the atmosphere. Those annual reports are publicly available upon request.

Additionally, LRAPA does monitor concentrations of the National Ambient Air Quality Standards (NAAQSs) at LRAPA monitoring sites even though those values are not industry specific. That data is available to the general public at https://www.lrapa.org/air-quality-protection/current-aqi/ and upon request.

Comment 3: The commenter asked LRAPA to provide the concentration at which air pollutants become a health concern.

Response 3: LRAPA is not able to comprehensibly provide the concentration at which all air pollutants become a health concern as this would require a complex analysis.

However, as it relates to the six criteria pollutants regulated under the Federal Clean Air Act (FCAA), the U.S. EPA sets National Ambient Air Quality Standards (NAAQSs). These NAAQS concentrations vary by pollutant and are set at a level that protects human health and the environment. More information on criteria pollutants and the NAAQSs are available on EPA's website here: https://www.epa.gov/criteria-air-pollutants

Hazardous air pollutants (HAPs) are regulated by the EPA under FCAA, but those standards are not based on air concentration levels but rather they are based on various control technologies by industrial sector. More information on HAPs is available on EPA's website here:

https://www.epa.gov/haps

The Cleaner Air Oregon (CAO) program regulates over 600 air toxics. The concentration at which these air toxics become a health concern depends on a variety of factors including the amount of air toxics emitted, the distance between the emission location and the location of the person exposed to those pollutants, and the meteorological conditions occurring over time. Facilities must undergo a risk assessment process that includes air dispersion modeling to determine potential health risks from air toxics. DEQ has more information about air toxics and health risk assessments available on the CAO webpage here:

https://www.oregon.gov/deq/aq/cao/Pages/default.aspx

Public Hearing Comment Receipt Log

Written comments were received from: Julie Ulibarri, jgcrystal77@gmail.com

EPA REVIEW

71. The proposed permit was sent to EPA on October 18, 2024 for a 45-day review period. The 45-day EPA review period ended on December 2, 2024 without an objection from EPA to the issuance of the proposed permit.

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

MH/aa
12/04/24

EMISSIONS DETAIL SHEETS

Emissions Unit	Annual Production Rate	Units	Pollutant	Emission Factor	Units	Reference	Annual Emissons (ton/yr)	CAM Uncontrolled (tons/yr)
EU-01: Veneer Dryer	120,000	MSF 3/8/yr	Formaldehyde	0.0664	lb/MSF 3/8"	NCASI Tech. Bull. 768 (cooling and fugitives), 2013 Source Test (ST -heating section)	3.98	
EU-01: Veneer Dryer	120,000	MSF 3/8/yr	Methanol	0.0522	lb/MSF 3/8"	NCASI Tech. Bull. 768 (cooling and fugitives), 2013 ST (heating section)	3.13	
EU-01: Veneer Dryer	120,000	MSF 3/8/yr	Acetaldehyde	0.03103	lb/MSF 3/8"	NCASI Tech. Bull. 768 (cooling and fugitives), 2013 ST	1.86	
EU-01: Veneer Dryer	120,000	MSF 3/8/yr	Total HAP	0.17	lb/MSF 3/8"	NCASI Tech. Bull. 768 (cooling and fugitives), 2013 ST (heating section)	9.95	
EU-01: Veneer Dryer	120,000	MSF 3/8/yr	VOC	0.556	lb/MSF 3/8"	NCASI Tech. Bull. 768 (cooling and fugitives), 2013 and 1994 ST (heating section)	33.33	
EU-01: Veneer Dryer and EU-01A East Fuel Cell	120,000	MSF 3/8/yr	PM/PM_{10}	0.423	lb/MSF 3/8"	Average 2001, 2013, 2018 and 1994 ST	25.35	39
EU-01: Veneer Dryer and EU-01A East Fuel Cell	120,000	MSF 3/8/yr	$PM_{2.5}$	0.106	lb/MSF 3/8"	Ave of PM Source Tests, $PM_{2.5}$ Fraction = 0.25, AQ-EF03 Med Eff Wet Scrubber	6.34	9.75
EU-01: Veneer Dryer and EU-01A East Fuel Cell	120,000	MSF 3/8/yr	NO_x	0.406	lb/MSF 3/8"	Average of 2018 and 2013 ST	24.36	
EU-01: Veneer Dryer and EU-01A East Fuel Cell	120,000	MSF 3/8/yr	CO	1.77	lb/MSF 3/8"	Average of 2018 and 2013 ST	106.02	
EU-01A: East Fuel Cell	14,500	BDT/yr	SO_2	0.45	lb/ton of fuel	AP-42 1.6, converted to lb/ton using HHV of 9000 Btu/lb	3.26	
EU-01A: East Fuel Cell	14,500	BDT/yr	HAPs (not already included in EU-01)	0.53	lb/ton of fuel	AP-42 1.6, converted to lb/ton using HHV of 9000 Btu/lb. See also EU-1A HAPs sheet	3.83	
EU-01A: East Fuel Cell	14,500	BDT/yr	CO_2	93.80	kg CO2/MMBtu	40 CFR Part 98 Table C-1	26,206.92	
			CH_4	0.0072	kg CH4/MMBtu	40 CFR Part 98 Table C-2	50.29	
			N_20	0.0036	kg N20/MMBtu	40 CFR Part 98 Table C-2	299.73	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Formaldehyde	0.0010	lb/MSF 3/8"	2013 ST	0.08	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Methanol	0.022	lb/MSF 3/8"	2013 ST	1.76	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Phenol	0.0003	lb/MSF 3/8"	2013 ST	0.02	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Acetaldehyde	0.0010	lb/MSF 3/8"	2013 ST	0.08	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Acrolein	0.00010	lb/MSF 3/8"	2013 ST	0.01	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Propionaldehyde	0.00010	lb/MSF 3/8"	2013 ST	0.01	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	Total HAP	0.025	lb/MSF 3/8"	sum of 2013 ST HAPs	1.96	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	VOC	0.1027	lb/MSF 3/8"	EPA Region 10 WPP1	8.22	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	PM/PM_{10}	0.011	lb/MSF 3/8"	2013 ST	0.88	
EU-02A & 02B: Presses	160000	MSF 3/8/yr	$PM_{2.5}$	0.01	lb/MSF 3/8"	DEQ AQ-EF08 (50%)	0.44	
EU-03: Finishing Line			VOC	VOCs determined by mass balance. Amount here = 2023 renewal Requested PSELs			1.7	
EU-03: Finishing Line			Methanol	Methanol determined by mass balance. Amount here = 2023 renewal Requested PSELs			0.0132	
EU-03: Finishing Line			Total HAP	HAPs determined by mass balance. Amount here = 2023 renewal Requested PSELs			0.235	
EU-04: Wood Residuals Conveying System A	160000	MSF 3/8/yr	Methanol	0.01	lbs/Mft^2 3/8"	NCASI Tech. Bull. 768	0.80	
EU-04: Wood Residuals Conveying System A	160000	MSF 3/8/yr	Formaldehyde	0.002	lbs/Mft^2 3/8"	NCASI Tech. Bull. 768	0.16	
EU-04: Wood Residuals Conveying System A	160000	MSF 3/8/yr	Acetaldehyde	0.002	lbs/Mft^2 3/8"	NCASI Tech. Bull. 768	0.16	
EU-04: Wood Residuals Conveying System A	160000	MSF 3/8/yr	VOC	0.014	lbs/Mft^2 3/8"	Sum of Methanol, Formaldehyde and Acetaldehyde	1.12	
EU-04: Wood Residuals Conveying System A	160000	MSF 3/8/yr	PM/PM_{10}	0.012	lbs/Mft^2 3/8"	2001 source test (ply press production basis)	0.96	
EU-04: Wood Residuals Conveying System A	160000	MSF 3/8/yr	$PM_{2.5}$	0.012	lbs/Mft^2 3/8"	2001 test + ($PM_{2.5}$ Fraction = 0.99)	0.95	
EU-05: Wood Residuals Conveying System B	3.40E+09	acfm/yr	PM/PM_{10}	0.01	gr/scf	GP Estimate	2.43	2429
EU-05: Wood Residuals Conveying System B	3.40E+09	acfm/yr	$PM_{2.5}$	0.01	gr/scf	GP Estimate + ($PM_{2.5}$ Fraction = 0.99)	2.40	2404
EU-6: Bleaching Operations	Bleaching operations no longer occur at the facility						0	
EU-07: Unpaved Road	See Unpaved Roads PM Sheet		PM	1.46	Tons/year	EPA AP-42. Chapter 13.2.2, Eq. 1a	1.46	
EU-07: Unpaved Road	See Unpaved Roads PM Sheet		PM_{10}	0.42	Tons/year	EPA AP-42. Chapter 13.2.2, Eq. 1a	0.42	
EU-07: Unpaved Road	See Unpaved Roads PM Sheet		$PM_{2.5}$	0.04	Tons/year	EPA AP-42. Chapter 13.2.2, Eq. 1a	0.04	
EU-08: West Fuel Cell	7,500	BDT/yr	VOC	1.20	lb/ton fuel	2013 ST VOC as propane plus HCOH and MeOH	4.49	
EU-08: West Fuel Cell	7,500	BDT/yr	PM/PM_{10}	0.39	lb/ton fuel	2013 ST	1.46	29.25
EU-08: West Fuel Cell	7,500	BDT/yr	$PM_{2.5}$	0.35	lb/ton fuel	DEQ AQ-EF08 (ESP)	1.33	26.62
EU-08: West Fuel Cell	7,500	BDT/yr	NO_x	6.1	lb/ton fuel	2018 ST, 2013 ST, 1994 ST	22.86	
EU-08: West Fuel Cell	7,500	BDT/yr	CO	17.2	lb/ton fuel	2018 ST, 2013 ST, 1994 ST	64.50	
EU-08: West Fuel Cell	7,500	BDT/yr	SO_2	0.450	lb/ton fuel	AP-42 1.6, converted to lb/ton using HHV of 9000 Btu/lb	1.69	
EU-08: West Fuel Cell			CO_2	93.80	kg CO2/MMBtu	40 CFR Part 98 Table C-1	13,555.30	
EU-08: West Fuel Cell			CH_4	0.0072	kg CH4/MMBtu	40 CFR Part 98 Table C-2	26.01	
EU-08: West Fuel Cell	7,500	BDT/yr	N_2O	0.0036	kg N20/MMBtu	40 CFR Part 98 Table C-2	155.03	
EU-08: West Fuel Cell	7,500	BDT/yr	Formaldehyde	0.3310	lb/ton fuel	2013 ST	1.24	
EU-08: West Fuel Cell	7,500	BDT/yr	Methanol	0.0660	lb/ton fuel	2013 ST	0.25	
EU-08: West Fuel Cell	7,500	BDT/yr	Acetaldehyde	0.0750	lb/ton fuel	2013 ST	0.28	
EU-08: West Fuel Cell	7,500	BDT/yr	Acrolein	0.0580	lb/ton fuel	2013 ST	0.22	
EU-08: West Fuel Cell	7,500	BDT/yr	Phenol	0.0000	lb/ton fuel	2013 ST	0.00	
EU-08: West Fuel Cell	7,500	BDT/yr	Propionaldehyde	0.0000	lb/ton fuel	2013 ST	0.00	
EU-08: West Fuel Cell	7,500	BDT/yr	Benzene	0.0280	lb/ton fuel	2013 ST	0.11	
EU-08: West Fuel Cell	7,500	BDT/yr	HCl	0.0050	lb/ton fuel	2013 ST	0.02	
EU-08: West Fuel Cell	7,500	BDT/yr	Manganese	0.0004	lb/ton fuel	2013 ST	0.001	
EU-08: West Fuel Cell	7,500	BDT/yr	Other HAP	0.0238	lb/ton fuel	AP-42 1.6, converted to lb/ton using HHV of 4472 Btu/lb	0.09	
EU-08: West Fuel Cell	7,500	BDT/yr	Total HAP	0.5872	lb/MMBtu	2013 ST and AP-42 1.6	2.20	
EU-09: Hogged Fuel Pile	5.00E+02	Tons/yr	PM/PM_{10}	0.24	lbs/BDT	GP Estimate	0.06	
EU-09: Hogged Fuel Pile	5.00E+02	Tons/yr	$PM_{2.5}$	0.036	lbs/BDT	GP Estimate ($PM_{2.5}$ Fraction = 0.15)	0.01	
EU-09: Hogged Fuel Pile	5.00E+02	Tons/yr	VOC	0.33	lbs/BDT	NCASI Tech Bul. 723 Pg. 14 x 1.22 (as propane)	0.08	
EU-10: Putty Patching Operations	77,348	pounds/yr	Formaldehyde	0.00E+00	lb/lb	Tech industry sales SDS, 2023 reported usage	0.00	
EU-10: Putty Patching Operations	77,348	pounds/yr	VOC	0.0025	lb/lb	Tech industry sales SDS, 2023 reported usage	0.10	
EU-AGG			$PM/PM_{10}/PM_{2.5}$	1		See EU-AGG tab	1.0	
EU-AGG			VOC	1			1.0	
EU-AGG			NOx	1			1.0	
EU-AGG			CO	1			1.0	
EU-AGG			SO_2	1			1.0	

PSELs	Tons/year	Unassigned (ton/year)
PM	33	7
PM10	33	1.4
$PM_{2.5}$	13	0
VOC	50	40
NO_x	48	--
SO_2	6.0	--
GHG	40,293	--
CO	172	--

HAP PTE		
Formaldehyde	5.5	--
Methanol	6.0	--
Acetaldehyde	2.4	--
Acrolein	0.2	--
Phenol	0.02	--
Propionaldehyde	0.01	--
Other HAPs	4.3	--
Total HAPs	19.1	--

2024 Revised Netting Basis and Unassigned Emissions

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limit (PSEL)			Unassigned Emissions
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase Over Netting Basis (tons/yr)	
PM	56	40	40	40	33	0	7.4
PM_{10}	49	34	34	34	33	0	1.4
$PM_{2.5}$	NA	29	24	29	13	-11	0
CO	81	82	81	175	172	91	--
NO_x	50	50	50	55	48	0	--
SO_2	1.5	1.5	1.5	39	6.0	4.5	--
VOC	754	139	90	99	50	0	40
GHG	34849	34849	34849	74000	40293	5444	--

EU-01 Veneer Dryer HAPs
PTE HAP Emission Inventory

Dryer Activity	**VOC**	**Total HAP**	Acetaldehyde	Formaldehyde	Methanol	Phenol	Propionaldehyd	m,p-Xylene	o-Xylene
Heating	0.486	0.097	0.026	0.03	0.04	0	0	0.001	0
Cooling	0.0295	0.0241	0.0042	0	0.0039	0.0091	0	0.0043	0.0026
Fugitives	0.0026	0.0447	0	0.0364	0.0083	0	0	0	0
TOTAL (lb/MSF 3/8")	0.5181	0.166	0.0302	0.0664	0.052	0.0091	0	0.0053	0.0026

Cooling, Fugitive and xylene heating section factors from EPA Region X (NCASI TB 768, updated 2015 and 2016), using highest emitting wood species.
Heating section emission factors 2013 VOC as propane plus methanol and formaldehyde

EU1A Fuel Cell - Wood Combustion

HAP	Emission Factor (lbs/MMBtu)		Annual Estimated PTE Emissions [(a)] (tons/yr)
ORGANICS			
1,1,1-Trichloroethane	3.1E-05	(2)	4.3E-03
1,2-Dichloroethane	2.9E-05	(2)	4.0E-03
1,2-Dichloropropane	3.3E-05	(2)	4.6E-03
2,4-Dinitrophenol	1.8E-07	(2)	2.5E-05
2,4,6-Trichlorophenol	2.2E-08	(2)	3.0E-06
4-Nitrophenol	1.1E-07	(2)	1.5E-05
Acenaphthene	9.1E-07	(2)	1.3E-04
Acenaphthylene	5.0E-06	(2)	6.9E-04
Acetaldehyde	8.3E-04	(2)	1.1E-01
Acetophenone	3.2E-09	(2)	4.4E-07
Acrolein	4.0E-03	(2)	5.5E-01
Anthracene	3.0E-06	(2)	4.1E-04
Benzene	4.2E-03	(2)	5.8E-01
Benzo(a)anthracene	6.5E-08	(2)	9.0E-06
Benzo(a)pyrene	2.6E-06	(2)	3.6E-04
Benzo(b)fluoranthene	1.0E-07	(2)	1.4E-05
Benzo(e)pyrene	2.6E-09	(2)	3.6E-07
Benzo(g,h,i)perylene	9.3E-08	(2)	1.3E-05
Benzo(j,k)fluoranthene	1.6E-07	(2)	2.2E-05
Benzo(k)fluoranthene	3.6E-08	(2)	5.0E-06
bis(2-Ethylhexyl)phthalate	4.7E-08	(2)	6.5E-06
Bromomethane	1.5E-05	(2)	2.1E-03
Carbon tetrachloride	4.5E-05	(2)	6.2E-03
Chlorine	7.9E-04	(2)	1.1E-01
Chlorobenzene	3.3E-05	(2)	4.6E-03
Chloroform	2.8E-05	(2)	3.9E-03
Chloromethane	2.3E-05	(2)	3.2E-03
Chrysene	3.8E-08	(2)	5.2E-06
Dibenzo(a,h)anthracene	9.1E-09	(2)	1.3E-06
Dichloromethane	2.9E-04	(2)	4.0E-02
Ethylbenzene	3.1E-05	(2)	4.3E-03
Fluoranthene	1.6E-06	(2)	2.2E-04
Fomaldehyde	4.4E-03	(2)	6.1E-01
Fluorene	3.4E-06	(2)	4.7E-04
Hydrogen chloride	1.9E-02	(2)	2.6E+00
Indeno(1,2,3,c,d)pyrene	8.7E-08	(2)	1.2E-05
Methanol	8.3E-04	(5)	1.1E-01
Naphthalene	9.7E-05	(2)	1.3E-02
Pentachlorophenol	5.1E-08	(2)	7.0E-06
Phenanthrene	7.0E-06	(2)	9.7E-04
Phenol	5.1E-05	(2)	7.0E-03
Polychlorinated dibenzo-p-d	1.7E-06	(2)	2.3E-04
Polychlorinated dibenzo-p-f	1.9E-09	(2)	2.6E-07
Polychlorinated biphenyls	8.1E-09	(2)	1.1E-06
Propanal	3.2E-06	(2)	4.4E-04
Propionaldehyde	6.1E-05	(2)	8.4E-03
Pyrene	3.7E-06	(2)	5.1E-04
Styrene	1.9E-03	(2)	2.6E-01
Tetrachloroethylene (Tetrac	3.8E-05	(2)	5.2E-03
Toluene	9.2E-04	(2)	1.3E-01
Trichloroethylene (Trichlorc	3.0E-05	(2)	4.1E-03
Vinyl chloride	1.8E-05	(2)	2.5E-03
Xylene-o	2.5E-05	(2)	3.5E-03

HAP	Emission Factor (lbs/MMBtu)		Annual Estimated PTE Emissions [(a)] (tons/yr)
METALS			
Antimony	7.9E-06	(3)	1.1E-03
Arsenic	2.2E-05	(3)	3.0E-03
Beryllium	1.1E-06	(3)	1.5E-04
Cadmium	4.1E-06	(3)	5.7E-04
Chromium (total)	2.1E-05	(3)	2.9E-03
Cobalt	6.5E-06	(3)	9.0E-04
Lead	4.8E-05	(3)	6.6E-03
Manganese	1.6E-03	(3)	2.2E-01
Mercury	3.5E-06	(3)	4.8E-04
Nickel	3.3E-05	(3)	4.6E-03
Selenium	2.8E-06	(3)	3.9E-04
Total Other HAPs	*2.9E-02*	*(4)*	*4.05E+00*
	Total HAPs		**5.46**

Notes:

(a) PTE annual emission rate (tons/yr) = (emission factor [lbs/MMBtu]) x (total heat input from fuel [MMBtu/yr]) / (2000 [lbs/ton])

Total fuel cell heat input (MMBtu/yr) ~ 276,000 (1)

References:

(1) Approximately 7500 btu/lb of fuel 21,400 TPY requested permitted fuel consumption.
(2) AP-42, Section 1.6., Table 1.6-3, September 2003.
(3) AP-42, Section 1.6., Table 1.6-4, September 2003.
(4) Sum of the emission factors for all detected HAPs other than formaldehyde. Used for permitting purposes only.
(5) NCASI Tech. Bull. 858

EU8 Fuel Cell - Wood Combustion

HAP	Emission Factor (lbs/MMBtu)		Annual Estimated PTE Emissions [a] (tons/yr)	
ORGANICS				
1,1,1-Trichloroethane	3.1E-05	(2)	7.0E-04	
1,2-Dichloroethane	2.9E-05	(2)	6.5E-04	
1,2-Dichloropropane	3.3E-05	(2)	7.4E-04	
2,4-Dinitrophenol	1.8E-07	(2)	4.1E-06	
2,4,6-Trichlorophenol	2.2E-08	(2)	5.0E-07	
4-Nitrophenol	1.1E-07	(2)	2.5E-06	
Acenaphthene	9.1E-07	(2)	2.0E-05	
Acenaphthylene	5.0E-06	(2)	1.1E-04	
Acetaldehyde			Use ST	
Acetophenone	3.2E-09	(2)	7.2E-08	
Acrolein			Use ST	
Anthracene	3.0E-06	(2)	6.8E-05	
Benzene			Use ST	
Benzo(a)anthracene	6.5E-08	(2)	1.5E-06	
Benzo(a)pyrene	2.6E-06	(2)	5.9E-05	
Benzo(b)fluoranthene	1.0E-07	(2)	2.3E-06	
Benzo(e)pyrene	2.6E-09	(2)	5.9E-08	
Benzo(g,h,i)perylene	9.3E-08	(2)	2.1E-06	
Benzo(j,k)fluoranthene	1.6E-07	(2)	3.6E-06	
Benzo(k)fluoranthene	3.6E-08	(2)	8.1E-07	
bis(2-Ethylhexyl)phthalate	4.7E-08	(2)	1.1E-06	
Bromomethane	1.5E-05	(2)	3.4E-04	
Carbon tetrachloride	4.5E-05	(2)	1.0E-03	
Chlorine	7.9E-04	(2)	1.8E-02	
Chlorobenzene	3.3E-05	(2)	7.4E-04	
Chloroform	2.8E-05	(2)	6.3E-04	
Chloromethane	2.3E-05	(2)	5.2E-04	
Chrysene	3.8E-08	(2)	8.6E-07	
Dibenzo(a,h)anthracene	9.1E-09	(2)	2.0E-07	
Dichloromethane	2.9E-04	(2)	6.5E-03	
Ethylbenzene	3.1E-05	(2)	7.0E-04	
Fluoranthene	1.6E-06	(2)	3.6E-05	
Formaldehyde			Use ST	
Fluorene	3.4E-06	(2)	7.7E-05	
Hydrogen chloride			Use ST	
Indeno(1,2,3,c,d)pyrene	8.7E-08	(2)	2.0E-06	
Methanol			Use ST	
Naphthalene	9.7E-05	(2)	2.2E-03	0.018675
Pentachlorophenol	5.1E-08	(2)	1.1E-06	
Phenanthrene	7.0E-06	(2)	1.6E-04	
Phenol			Use ST	
Polychlorinated dibenzo-p-d	1.7E-06	(2)	3.8E-05	
Polychlorinated dibenzo-p-f	1.9E-09	(2)	4.3E-08	
Polychlorinated biphenyls	8.1E-09	(2)	1.8E-07	
Propanal	3.2E-06	(2)	7.2E-05	
Propionaldehyde			Use ST	
Pyrene	3.7E-06	(2)	8.3E-05	
Styrene			Use ST	
Tetrachloroethylene (Tetrac	3.8E-05	(2)	8.6E-04	
Toluene	9.2E-04	(2)	2.1E-02	
Trichloroethylene (Trichlorc	3.0E-05	(2)	6.8E-04	
Vinyl chloride	1.8E-05	(2)	4.1E-04	
Xylene-o	2.5E-05	(2)	5.6E-04	

HAP	Emission Factor (lbs/MMBtu)		Annual Estimated PTE Emissions [a] (tons/yr)
METALS			
Antimony	7.9E-06	(3)	1.8E-04
Arsenic	2.2E-05	(3)	5.0E-04
Beryllium	1.1E-06	(3)	2.5E-05
Cadmium	4.1E-06	(3)	9.2E-05
Chromium (total)	2.1E-05	(3)	4.7E-04
Cobalt	6.5E-06	(3)	1.5E-04
Lead	4.8E-05	(3)	1.1E-03
Manganese			Use ST
Mercury	3.5E-06	(3)	7.9E-05
Nickel	3.3E-05	(3)	7.4E-04
Selenium	2.8E-06	(3)	6.3E-05
Total Other HAPs	*2.7E-03*	*(4)*	*6.0E-02*
	Total HAPs		**0.06**

Notes:

(a) PTE annual emission rate (tons/yr) = (emission factor [lbs/MMBtu]) x (total heat input from fuel [MMBtu/yr]) / (2000 [lbs/ton])

Total fuel cell heat input (MMBtu/yr) ~ 45,000 (1)

References:

(1) Approximately 7500 btu/lb of fuel 21,400 TPY requested permitted fuel consumption.
(2) AP-42, Section 1.6., Table 1.6-3, September 2003.
(3) AP-42, Section 1.6., Table 1.6-4, September 2003.
(4) Sum of the emission factors for all detected HAPs other than formaldehyde. Used for permitting purposes only.
(5) NCASI Tech. Bull. 858

Unpaved Roads: EU - UPR (Current)		
Source Used		EPA AP-42. Chapter 13.2.2, Eq. 1a
Equation		E = k(s/12)^a(W/3)^b
Where:		a = 0.7 for PM and 0.9 for PM_{10} &$PM_{2.5}$ and b = 0.45. Both 'a' and 'b' are empirical constants
Variable Descriptions and Calculations		
PM		
E =		Emission Factor, pounds per vehicle miles traveled (lb/VMT)
k =	4.9	Particle size multiplier (lb/VMT), AP-42, Table 13.2.2.2
a =	0.7	Unitless constant, AP-42, Table 13.2.2.2
b =	0.45	Unitless constant, AP-42, Table 13.2.2.3
s =	8.4	Silt Content of road surface material, %, AP-42, Table 13.2.2.1 - "Lumber sawmills" (mean percent
W =	2.05	Mean vehicle weight, tons (Ave passenger vehcile weight as per EPA 2022)
E =	3.21	lb/VMT (PM emission factor)
p =	150	Number of annual days with at least 0.01 inches of precipitation, unitless (AP-42 Figure 13.2.2-1)
E(ext) =	**1.89**	EF for PM adjusted for rain days (AP-42, 13.2.2, Eq (2))
PM10		
E =		Emission Factor, pounds per vehicle miles traveled (lb/VMT)
k =	1.5	Particle size multiplier (lb/VMT), AP-42, Table 13.2.2.2
a =	0.9	Unitless constant, AP-42, Table 13.2.2.2
b =	0.45	Unitless constant, AP-42, Table 13.2.2.3
s =	8.4	Silt Content of road surface material, %, AP-42, Table 13.2.2.1 - "Lumber sawmills" (mean percent
W =	2.047	Mean vehicle weight, tons (source supplied)
E =	0.92	lb/VMT (PM_{10} emission factor)
p =	150	Number of annual days with at least 0.01 inches of precipitation, unitless (AP-42 Figure 13.2.2-1)
E(ext) =	**0.54**	EF for PM_{10} adjusted for rain days (AP-42, 13.2.2, Eq (2))
PM2.5		
E =		Emission Factor, pounds per vehicle miles traveled (lb/VMT)
k =	0.15	Particle size multiplier (lb/VMT), AP-42, Table 13.2.2.2
a =	0.9	Unitless constant, AP-42, Table 13.2.2.2
b =	0.45	Unitless constant, AP-42, Table 13.2.2.3
s =	8.4	Silt Content of road surface material, %, AP-42, Table 13.2.2.1 - "Lumber sawmills" (mean percent
W =	2.047	Mean vehicle weight, tons (source supplied)
E =	0.09	lb/VMT ($PM_{2.5}$ emission factor)
p =	150	Number of annual days with at least 0.01 inches of precipitation, unitless (AP-42 Figure 13.2.2-1)
E(ext) =	**0.054**	EF for $PM_{2.5}$ adjusted for rain days (AP-42, 13.2.2, Eq (2))
Control %	**75**	Road watering efficiency (%)
PM EF	**0.4733**	Emission factors (lb/VMT) with wet suppression control.
PM_{10} EF	**0.1349**	
$PM_{2.5}$ EF	**0.0135**	
Annual Vehicle Miles Traveled		
VMT	**6,182**	Total amount of vehicle miles traveled per year
Total Annual Particulate Matter Emissions, tons ((EF x VMT)/2000 lb/ton		
PM	**1.46**	**tons per year**
PM10	**0.42**	**tons per year**
PM2.5	**0.04**	**tons per year**
Silt Content of road surface material, %, AP-42, Table 13.2.2.1: Sand and gravel processing - Haul roads to/from pit (percent of mean)		

Passenger Vehicle and Vehicle Miles Travel Information		
Mile traveled one way	0.2	miles (at ~200 + 600 ft)
Miles traveled round trip	0.3	miles
Trips per day each passenger vehicle makes	4	trips/day
Number of passenger vehicles	20	Passenger vehicles
Total amount of trips made per day	80	Total number of passenger vehicle trips/day
Number of miles driven by passenger vehicle per day	24.24242	miles/day
Number of miles driven by passenger vehicles per week (5 days/wk)	121.2121	Miles/week
Total miles per year (51 weeks)	**6,182**	Miles/year
Average weight of a passenger vehicle	**2.0**	tons (EPA 2022)

Emissions for unpaved roads were estimated by LRAPA based on information provided by the facility.

Aggregate Insignifcant Emissions

Device	Pollutant	Max Heat Input (MMBtu/hr)	Max Heat Input (MMSCF/hr)	Emission Factor (lb/MMSCF)	Annual Emissions (ton/yr)
Natural Gas-Fired Boilers #1 and #2 (NG-1 and NG-2)	PM/PM10/PM2.5	7.6	0.0076	2.5	0.01
	SO2			1.7	0.01
	NOx			100	0.57
	CO			84	0.48
	VOC			5.5	0.03

Actual hours of each boiler operation = 1500 per year
Emission factors from AQ-EF05

Device	Pollutant	Material Throughput (BDT/year)	Emission Factor (lb/BDT)	Annual Emissions (ton/yr)
Rubber Cyclone (MC-4)	PM	2	0.5	0.0005
	PM10		0.425	0.0004
	PM2.5		0.25	0.0003
Sample Dept Cyclone (MC-2)	PM	1	0.5	0.0003
	PM10		0.425	0.0002
	PM2.5		0.25	0.0001
Carpenter Shop Cyclone (MC-3)	PM	2	0.5	0.0005
	PM10		0.425	0.000425
	PM2.5		0.25	0.00025
Paper Cyclone (MC-1)	PM	3	0.5	0.0005
	PM10		0.425	0.000425
	PM2.5		0.25	0.00025
		TOTAL	PM	0.016
			PM10	0.016
			PM2.5	0.015

Emission factors from AQ-EF02, AQ-EF03
Updated material throughput amounts (BDT/year) provided from facility consultant12/8/17 email.

Device	Pollutant	Material Throughput (lb/yr)	Related Production Basis (MMSF/yr 3.8")	Emission Factor (lb/MMSF 3/8")	Annual Emissions (ton/yr)
Resin Storage Tank(s) EU-2C	VOC	8,000,000	160	0.133	0.0106

Emission factor from Swanson Title V which cites Weyerhaeuser Foster 2006 Permit
Also reviewed Roseburg Forest Products, Riddle Plywood (and other) detail sheets that used AP-42 Chapter 7
Other facilities have more resin usage (~10 million pounds/year) and VOC emissions of 0.066 ton/year

Activity	Pollutant	Material Throughput and Annual Emissions (lb/yr)
Spray Painting	VOC	109

Facility uses up to 350 10-ounce spray paint cans per year
Assume contents = 100% acetone that volatalize

Maximum Hourly Design Capacity

Device ID	Device Description	Rate (MSF/hr 3/8")	Ref.
VD#1	Veneer Dryer #1	19	1994 Title V Application, DV210-L
VD#2	Veneer Dryer #2	14	1994 Title V Application, DV210-L
HP-1	Hot Press #1	11	1994 Title V Application, DV208-L
HP-2	Hot Press #2	11	1994 Title V Application, DV208-L
	TOTAL	**55**	**lb/hour for Board Products Rule**

Source Test Results

Emission Unit	Date	Pollutant	Result	Units	
Plywood Presses EU-02A and O2B	3-Mar-14	Formaldehyde	0.001	lb/MSF 3/8"	
		Methanol	0.022	lb/MSF 3/8"	
		Phenol	0.0003	lb/MSF 3/8"	
		Acetaldehyde	0.001	lb/MSF 3/8"	
		Acrolien	0.0001	lb/MSF 3/8"	
		Propionaldehyde	0.0001	lb/MSF 3/8"	
		Particulate (PM)	0.011	lb/MSF 3/8"	
Veneer Dryer EU-01 and East Fuel Cell EU-01A Wet Scrubber	Jul-18	PM	0.128	lb/MSF 3/8"	0.016 gr/dscf
		CO	1.252	lb/MSF 3/8"	
		NOx	0.381	lb/MSF 3/8"	
		VOC	0.207	lb/MSF 3/8"	Not used in average since it does not include values of concurrent measurement of methanol and formaldehyde
	23-Sep-14	Particulate (PM)	0.431	lb/MSF 3/8"	0.0282 gr/dscf
	Febraury 20-22, 2013	Particulate (PM)	0.9	lb/MSF 3/8"	0.0641 gr/dscf
	Febraury 20-22, 2013	CO	2.282	lb/MSF 3/8"	
		NOx	0.431	lb/MSF 3/8"	
		VOC	0.416	lb/MSF 3/8"	
		Formaldehyde	0.03	lb/MSF 3/8"	
		Methanol	0.04	lb/MSF 3/8"	
		Phenol	0	lb/MSF 3/8"	
		Acetaldehyde	0.026	lb/MSF 3/8"	
		Acrolien	0	lb/MSF 3/8"	
		Propionaldehyde	0	lb/MSF 3/8"	
West Heat Cell EU-08 Dry ESP	Febraury 20-22, 2013	Particulate (PM)	0.39	lb/ton	0.0064 gr/dscf
		CO	33.377	lb/ton	
		NOx	4.351	lb/ton	
		VOC	0.8	lb/ton	
		Manganese	0.000368	lb/ton	
		HCl	0.005	lb/ton	
		Formaldehyde	0.331	lb/ton	
		Methanol	0.066	lb/ton	
		Phenol	0	lb/ton	
		Acetaldehyde	0.075	lb/ton	
		Acrolein	0.058	lb/ton	
		Propionaldehyde	0	lb/ton	
		Benzene	0.028	lb/ton	
		Styrene	0	lb/ton	
	Jul-18	CO	10.715	lb/ton	
		NOx	5.359	lb/ton	
		VOC	0.439	lb/ton	Not used in average since it does not include values of concurrent measurement of methanol and formaldehyde
Older Testing					
Veneer Dryer EU-01 and East Fuel Cell EU-01A Wet Scrubber	2001	Particulate (PM)	0.231	lb/MSF 3/8"	
Veneer Dryer EU-01 and East Fuel Cell EU-01A Wet Scrubber	1994	Particulate (PM)	1.06	lb/MSF 3/8"	
		NOx	0.53	lb/MSF 3/8"	(see Original Title V App. 1994)
		CO	1.45	lb/MSF 3/8"	(see Original Title V App. 1994)
		THC	2.24	lb/MSF 3/8"	as carbon
		VOC	0.593	lb/MSF 3/8"	as propane (see Original Title V App. 1994)
		Formaldehyde	1.21	lb/MSF 3/8"	
		Acetaldehyde	1.03	lb/MSF 3/8"	
		Acrolien	1	lb/MSF 3/8"	
West Heat Cell EU-08 Dry ESP	2003	Particulate (PM)	0.116	lb/ton	
West Heat Cell EU-08 (pre-ESP)	1994	CO	7.51	lb/ton	average of test results, excludes adding std. dev.
	1994	NOx	8.58	lb/ton	average of test results, excludes adding std. dev.
Veneer Dryer EU-01 and East Fuel Cell EU-01A Wet Scrubber	2001	Particulate (PM)	0.257	lb/MSF 3/8"	
Wood Residuals Baghouse EU-04	2001	Particulate (PM)	0.012	lb/MSF 3/8"	

2010 GHG Baseline Emission Rates

Source	CO_2	CH_4	N_2O	CO_2e
Hogged Fuel (BDT)	32734	11	1	33423
Natural Gas (Units)	656	0.01	0.001	657
Propane (Units)	766	0.04	0.007	769
Biogenic Total	32734	11	1	33353
Anthropogenic Total	1422	0.05	0.009	1426
Total GHG	33857	11	1	34776

1978 Baseline Emission Rates

Emissions Unit ID	PM	PM_{10}	$PM_{2.5}$	CO	NO_X	SO_2	VOC
Veneer Dryers	8.3	8.3	NA	53.8	19.7	NA	22
East Fuel Cell	NA	NA	NA	NA	NA	1	NA
Hot Presses	1.8	1.8	NA	NA	NA	NA	2.6
Resin Usage	NA	NA	NA	NA	NA	NA	48.8
Finishing Line	NA	NA	NA	NA	NA	NA	680
North Carter Day Baghouse	8.1	8.1	NA	NA	NA	NA	NA
#2 Clark Baghouse	7.1	7.1	NA	NA	NA	NA	NA
East Fuel Cell Baghouse	2.1	2.1	NA	NA	NA	NA	NA
Unpaved Road (Employees')	5.2	1.9	NA	NA	NA	NA	NA
Unpaved Road (Shipping)	2.7	1	NA	NA	NA	NA	NA
West Fuel Cell	17.4	17.4	NA	26.6	27.2	0.4	0.6
Hogged Fuel Storage	2.5	1.1	NA	NA	NA	NA	NA
Natural Gas Boilers 1 and 2 (EU-AGG)	0.3	0.3	NA	0.5	2.4	0.1	0.1
Aggregate Insignificant (all other EU-AGG)	0.3	0.3	NA	0.12	0.57	0	0.03
Total	**55.7**	**49.4**	**NA**	**81.0**	**49.8**	**1.5**	**754.1**