Standard Air Contaminant Discharge Permit
Review Report
Lane Regional Air Protection Agency

Eagle Veneer, Inc.
215 West 16th Avenue
Junction City, Oregon 97448
http://www.eagleveneer.com

Permit No. 200517

Source Information:

SIC	2436
NAICS	321212

Source Categories (LRAPA title 37, Table 1, Part B)	B57: Veneer Drying, B12: Fuel Burning Equip. >10 MMBtu/hr
Public Notice Category	Category II -LRAPA 37-0066(4)(a)(A)

Compliance and Emissions Monitoring Requirements:

FCE	NA
Compliance schedule	NA
Unassigned emissions	NA
Emission credits	NA
Special Conditions	NA

Source tests	Within 18 months of permit issuance
COMS	NA
CEMS	NA
PEMS	Veneer Production (⅜" basis) & NG Usage
Ambient monitoring	NA

Reporting Requirements

Annual report (due date)	March 15th
Quarterly report (due dates)	NA

Monthly report (due dates)	NA
Excess emissions report	NA
Other (specify)	NA

Air Programs

Synthetic Minor (SM)	NA
CAM	NA
NSPS (list subparts)	A, Dc
NESHAP (list subparts)	NA
CAO	NA
NSR	NA

PSD	NA
GHG (due date)	March 31st
RACT	NA
TACT	NA
Other (specify)	NA

PERMITTING

PERMITTEE IDENTIFICATION

1. Eagle Veneer, Inc. ("Eagle Veneer" and/or "the facility") operates a veneer-drying facility at 215 W. 16th Ave in Junction City, Oregon. Unfinished dried veneer from the facility is trucked to Eagle Veneer's plywood facility in Harrisburg, Oregon (Linn County) for finishing and manufacturing plywood (Eagle Plywood Specialties assigned to ODEQ General ACDP AQGP-010, Source #22-6031).

PERMITTING ACTION

2. The proposed permit is a renewal of an existing Standard Air Contaminant Discharge Permit (ACDP #200517) that was issued on November 19, 2015 and was originally scheduled to expire on November 19, 2020. The facility is permitted as a Standard ACDP because the facility operates a process listed in LRAPA title 37 Table 1, Part B:57 (Veneer Drying), Part B:12 (Boilers > 10 MMBtu/hr heat input) and Part C:3 (Source electing to maintain the source's netting basis). The existing ACDP remains in effect until final action on the renewal application because the facility submitted a timely and complete application for renewal.

   As part of the renewal, LRAPA has added new and updated requirements and rule citations to the permit. The main changes include: updating the permit to reflect the new natural gas (NG)-fired boiler which was installed in October 2019, replacement of the material handling baghouse in September 2020, replacement of the two (2) veneer dryer Burley scrubbers in July 2021 because the original scrubbers were damaged in a building fire on December 3, 2020, updating the veneer dryers emission factors and recalculation of VOC and HAP emissions based on the March 2017 source test results, establishing formal HAP PSELs, adding the scarfer press and related resin HAP and VOC emissions and scarfer saw HAP and VOC emissions, and documenting compliance and construction activities at the facility since the issuance of the ACDP in November 2015.

ATTAINMENT STATUS

3. The facility is located in an attainment area for all pollutants (PM, PM_{10}, $PM_{2.5}$, NO_x, SO_2, CO, VOC, Ozone and Lead (Pb)).

SOURCE DESCRIPTION

OVERVIEW

4. Eagle Veneer, Inc., operates a veneer-drying facility in Junction City, Oregon. The facility was first permitted in 1978 under Bohemia, Inc., and has been owned and operated by Eagle Veneer, Inc., since 1990. The facility dries approximately 140 million square feet per year of veneer on a 3/8" basis. The operation consists of two (2) natural gas-fired and steam-heated veneer dryers with particulate matter emissions controlled by two (2) Burley Scrubbers (replaced in July 2021) and one (1) natural gas-fired boiler (with no oil backup) to provide steam for the veneer dryers. Veneer is dried with 50% heat from the boiler and 50% heat from the veneer dryers NG direct-fired burners. The facility typically dries heart veneer in Dryer # 1 and sap veneer in Dryer #2, The facility also uses two (2) cyclones and one (1) baghouse to control particulate matter (PM) emissions from the sawdust and wood trim material handling system (hog chipper, scarfer, and strip saw). The two cyclones are capped and vented to the baghouse. The operating schedule for the facility is 8,760 hours per year (24 hours per day, 7 days per week, and 52 weeks per year).

5. The following changes have been made to the facility since the last permit renewal:

   a. Replacement of the previous Cleaver Brooks 33.5 MMBtu/hr natural gas boiler with fuel oil backup with a new Cleaver Brooks 27.7 MMBtu/hr natural gas boiler with no fuel oil backup in October 2019 (NC-200517-A19);
   b. Replacement of the material handling baghouse in September 2020 (NC-200517-A20);

and

c. Replacement of the two (2) veneer dryer Burley scrubbers in July 2021 (NC-200517-A21) because the original scrubbers were damaged in a building fire on December 3, 2020.

PROCESS AND CONTROL DEVICES

6. The existing air contaminant sources at the facility consist of the following:

Device/ Process ID	Device/Process Description	Construction / Installation Date	Pollution Control Device ID	Pollution Control Device Description	Construction/ Installation Date	Estimated(?) Control Efficiency
EU-1	Veneer Dryer #1 (EQ#01): NG & Steam Heated (50:50) w/ 2 NG burners rated at 7.5MMBtu/hr	Prior to 1978	CD#01	Burley Wet Scrubber	July 2021	45%
	Veneer Dryer #2 (EQ#02): NG & Steam Heated (50:50) w/ 4 NG burners, 2 rated at 5.0 MMBtu/hr and 2 rated at 7.5MMBtu/hr	Prior to 1978	CD#01	Burley Wet Scrubber	July 2021	45%
EU-2	27.7 MMBtu/hr NG boiler with no fuel oil backup	Oct. 11, 2019	NA	NA	NA	NA
EU-3	Sawdust & Wood Trim Material Handling System with two cyclones (EQ#12 & EQ#13)	Replaced cyclones in 1995	CD#6	Donaldson 376 Baghouse	September 2020	99%
EU-4	Veneer Scarfer Saw VOC & HAP	Prior to 1978	NA	NA	NA	NA
EU-AID-5	Veneer Scarfer Press Resin VOC & HAP	Prior to 1978	NA	NA	NA	NA
EU-6	Paint & Ink VOC & HAP	Prior to 1978	NA	NA	NA	NA

COMPLIANCE HISTORY

7. Facility Inspections and Reports (to date since 2015):

March 7, 2017; PCADs #2242: Source Test Observation, In Compliance with Performance Requirements: Emission Factor Verification testing conducted in accordance with ACDP Testing Requirement Condition 19. Zero (0%) opacity observed on the veneer dryer stacks and the baghouse stack during tests. An issue with cyclonic flow during source testing was resolved by LRAPA personnel.

April 17; 2017; PCADs #2272: Maintenance of Compliance Inspection, In Compliance with Monitoring and Reporting Requirements: LRAPA requested rolling totals of facility 2016 operating parameters (total veneer production and NG usage) & 2016 GHG emissions. Facility provided the requested documentation on the same day as the request (April 17, 2017). All rolling totals of NG combusted and veneer production were below permitted levels.

June 9, 2017; PCADs #2289: Source Test Results Evaluation – In Compliance with Monitoring and Reporting Requirements: Facility provided March 7, 2017 source test report within 60 days as required. Reported Emission Factor Verification test results indicated:
PM EF of 0.004 lbs/MSF⅜" vs. Permit/RR PM EF 0.56 lbs/MSF⅜";
CO EF of 0.17 lbs/MSF⅜" vs. Permit/RR CO EF 0.02 lbs/MSF⅜";
NOx EF of <0.0018 lbs/MSF⅜" vs. Permit/RR NOx EF 0.12 lbs/MSF⅜";
VOC EF of 0.26 lbs/MSF⅜" vs. Permit/RR VOC EF 0.21 lbs/MSF⅜";

Note: During permit renewal, it was discovered that the source test report used incorrect production data (production based on 1/10" MSF basis rather than ⅜" basis). LRAPA's October 2022 reevaluation of the source test results corrected the results to a ⅜" basis and recalculated emissions. The corrections have been documented in the permit and emissions detail sheets at the of this review report.

February 20, 2018; PCADs #2382: Maintenance of Compliance Inspection, In Compliance with Monitoring and Reporting Requirements: LRAPA requested rolling totals of facility 2017 operating parameters (total veneer production and NG usage) & 2017 GHG emissions. Facility provided the requested documentation on the same day as the request (February 20, 2018). All rolling totals of NG combusted and veneer production were below permitted levels.

July 15, 2019; PCADs #2591: Maintenance of Compliance Inspection, In Compliance with Monitoring and Reporting Requirements: Operational parameters and GHG emission provided for 2018 calendar year. All rolling totals of NG combusted and veneer production were below permitted levels.

September 24, 2019, PCADs #2647: NESHAP Asbestos Inspection for asbestos containing materials (ACM) Demolition, In Compliance with Procedural Requirements: LRAPA Inspector discussed a variance in asbestos work practices related to demolition of a large facility industrial building with facility and asbestos abatement contractor personnel. The asbestos containing roof (50% chrysotile asbestos in felt layer) was critically damaged during an ice storm in 2018 and the building was determined to be unfit to support the weight of abatement workers safely. The inspector advised the facility and/or abatement crew to submit a written request for a variance of the asbestos work practices for LRAPA approval.

October 19, 2021; **LINFO** #73: Comprehensive Compliance Status Inspection – Full Compliance Evaluation, In Compliance with all permit conditions: Facility Walk-Through indicated no visible emissions from the baghouse and veneer dryers Burley scrubbers or from the patching and scarfing operations. At the time of the inspection, it was noted that the scarfer press resin usage was not being tracked and the VOC & HAP emissions were not accounted for in the ACDP. Scarfer press and scarfer saw VOC & HAP emissions were added with the 2022 permit renewal.

8. Enforcement History

No enforcement actions have been taken against this source since March 2004. Prior enforcement actions include:

- **Notice of Non-Compliance (NON) No.2651** was issued to the facility on March 3, 2004 for failure to submit an application for Notice of Construction for use of a temporary boiler while the permitted boiler was down for repairs. The facility submitted the necessary paperwork and the file was closed on March 22, 2004.
- **Notice of Non-Compliance (NON) No.2580** was issued to the facility on November 20, 2003 for allowing the particulate matter to become airborne from the ductwork of the dust collection system (cyclones and baghouse). The facility repaired the ductwork leaks and the file was closed on December 2. 2003.
- **Notice of Non-Compliance (NON) and Notice of Civil Penalty (NCP) No.2208** was issued to the facility on February 23, 2001 for open burning of prohibited materials and open burning of demolition/commercial debris without first obtaining a letter permit from LRAPA. The facility paid the letter permit fee of $620 and the $300 civil penalty and the file was closed on March 15, 2001.
- **Notice of Non-Compliance (NON) No.1182** was issued to the facility on January 24,1996 for exceeding the hours of operation for the cyclones as allowed by the facility's permit (no more than 6,000/year). The facility elected to modify the permitted operating hours at the permit renewal and the file was closed on January 26, 1996.
- **Notice of Non-Compliance (NON) No.** 93-97 was issued on August 30,1993 for exceeding the veneer dryer #2 opacity limit on August 2, 1993. The facility submitted an investigation report and a corrective action plan to LRAPA and the file was closed on

September 20. 1993.

9. Complaints:

During the prior permit period, there were no complaints recorded for this facility.

EMISSIONS

10. Proposed PSEL Information:

Pollutant	Baseline Emission Rate (BER) (tons/yr)[a]	Netting Basis (NB)		Plant Site Emission Limit (PSEL)			
		Previous$_{2015}$ (tons/yr)	Proposed (tons/yr)	Previous PSEL$_{2015}$ (tons/yr)	Proposed PSEL (tons/yr)	Unassigned Emissions (ton/yr)	SER (ton/yr)
PM	95	78	78	53	53	25	25
PM_{10}	89	68	68	53	53	15	15
$PM_{2.5}$	NA	19	19	15	15	5	10
CO	59	NA	0	99	99	0	100
NO_X	3	39	0	39	39	0	40
SO_2	1	NA	0	39	39	0	40
VOC	10	39	0	39	39	0	40
GHG_{2005}	14,079	14,079	0	74,000	74,000	0	75,000
Single HAP (Methanol)	NA	NA	NA	NA	9	NA	NA
Combined HAPs	NA	NA	NA	NA	24	NA	NA

a. The **Baseline Emission Rates (BERs), Netting Bases (NBs),** and **PSELs** for PM, PM_{10}, CO, NO_X, SO_2, VOC and GHG were established in previous permitting actions and there is no new information that effects the previous determinations. The facility's 1978 BERs were based on the veneer dryers 1978 production rate of 120,000,000 square feet (3/8" basis), two cyclones with a baghouse processing 4000 BDT of wood waste and a wood-fired boiler combusting 18,000 tons of hog fuel in 1978. The GHG BER is based on actual GHG emissions from the 2005 calendar year (Jan-Dec 2005) from natural gas combustion. A full accounting of facility emissions is provided in the emission detail sheets at the end of this review report.
b. A **Baseline Emission Rates (BER)** is not required for $PM_{2.5}$ in accordance with the definition of "baseline emission rate" in LRAPA title 12. The $PM_{2.5}$ **netting basis** was established with the July 2015 permitting action as the ratio of the fraction of PM_{10} that is $PM_{2.5}$ (0.28) multiplied by the PM_{10} netting basis (68 tons/year). The $PM_{2.5}$ **PSEL** of 15 tons per year (TPY) was established with the 2015 permit renewal and has not changed with the current permit renewal.
c. **Source Specific and Generic PSELs:** In accordance with LRAPA 42-0041, the PSELs for PM, PM10, and PM2.5 were established at a source specific annual level accounting for the baseline/netting basis. In accordance with LRAPA 42-0040, the PSELs for CO, NO_X, SO_2, VOC and GHG were established at the generic PSEL level with the 2015 renewal and the associated netting bases were reduced to zero tons per year for each generic PSEL (LRAPA 42-0040(3)).
d. **Baseline Emission Rates (BERs)** are not required for a single HAP or combined HAPs in accordance with the definition of "baseline emission rate" in LRAPA title 12 and title 42. In accordance with LRAPA 42-0040 and 42-0060, LRAPA has proposed **PSELs** for HAP_{single} and $HAP_{combined}$ at the generic PSEL levels to establish enforceable potential to emit (PTE) limits and ensure the facility does not trigger the major source threshold for any single or combined HAP.
e. **Unassigned Emissions:** The unassigned emissions for PM, PM_{10} and $PM_{2.5}$ were updated in the 2015 renewal to reflect expiration on July 1, 2010 of emissions in excess of the SER, in

accordance with LRAPA 42-0046 and 42-0055. The unassigned emissions were reduced to no more than the SER for each pollutant in LRAPA title 12, Table 2.

f. **Emission Reduction Credits:** This facility has no Emission Reduction Credits as defined in LRAPA title 12 and specified in LRAPA title 41.

SIGNIFICANT EMISSION RATES (SER) ANALYSIS

11. For each pollutant, the proposed Plant Site Emission Limit is less than the sum of the Netting Basis and the significant emission rate, thus no further air quality analysis is required at this time. The baseline emissions for the facility were established during the 2015 permit renewal action and were not revised with this permit action.

PSEL COMPLIANCE DEMONSTRATION

12. To ensure that the 12-month rolling PSELs are not exceeded, the facility is required to perform emission calculations by the 15th day of each month and submit annual reports by March 15th of each year to LRAPA. For GHGs, compliance with the PSEL is determined by complying with the Oregon GHG reporting program requirements specified in division 215 (as applicable).

13. **In lieu of monthly calculations**, the facility is allowed to keep records demonstrating that none of the operational parameters are exceeded on a rolling annual basis. The total veneer dryer production must not exceed 185,000,000 ft^2/year (on a ⅜" basis) and natural gas usage must not exceed 350,316,365 cubic feet/year per 12-month rolling period. Because the facility is not a major source of criteria pollutants or HAPs, the facility is assumed to be in compliance with the PSELs if the veneer dryer production and natural gas usage is less than the operational parameter limits listed above.

14. To further ensure continuous compliance, the facility is required to keep records of the following information for a period of at least five (5) years after data entry.

Item	Emission Source, Unit Device or Activity (EU-ID#)	Process, Parameter or Production (units)	Minimum Monitoring & Recording Frequency
A	EU-1 Veneer (Dryers #1 &#2)	Total veneer production by species EU-1 Dryer #1 & #2 (sq. ft. ⅜" basis)	Monthly
B	Facility-wide Total Natural Gas Combustion	Total amount of natural gas combusted in EU-1 Dryers (SCF NG or MMBtu NG)	Monthly
		Total amount of natural gas combusted in EU-2 NG Boiler (SCF NG or MMBtu NG)	Monthly
C	EU-3 Material Handling/Truck Bin Cyclones (2): EQ#12 & EQ#13	Total BDT (Bone Dry Tons) of wood trim/sawdust throughput in EU-3 (BDT/month)	Monthly
D	EU-3 Cyclones (EQ#12 & EQ#13)	Visual Inspection	Weekly
E	EU-3 Baghouse EQ#14)	Visual Inspection	Weekly
F	EU-3 Baghouse EQ#14)	Pressure drop readings (inches of H_2O)	Weekly
G	Each Burley Scrubber, including the spray nozzles	Inspection and water flow (gpm)	Daily

Item	Emission Source, Unit Device or Activity (EU-ID#)	Process, Parameter or Production (units)	Minimum Monitoring & Recording Frequency
H	EU-1 Veneer Dryers (2) and Burley Scrubbers (2)	Inspection & Maintenance for EU-2 Veneer Dryers (2) & associated Burley Scrubbers (2)	As performed
I	EU-4 Veneer Scarfer Saw HAP	Total EU-4 saw throughput (sq. ft.⅜" basis)	Monthly
J	EU-AID-5 & EU-6 VOC/HAP containing materials usage: adhesives, paints, and inks etc.	Pounds/pound of material used (lbs)	Monthly
K	EU-AID-5 & EU-6 VOC/HAP containing adhesives, paints and, inks, etc.	VOC % by weight & % by weight for each HAP	Maintain current information (SDS) at all times
***L**	*Facility-Wide Annual PSEL Compliance Demonstration***if not using Alternative PSEL Compliance Demonstration in Condition**	*Rolling 12-month PSEL Compliance Demonstration (tons/yr)	*By the 15th of each Month

REPORTING REQUIREMENTS

15. The facility is required to submit an annual report as described in the permit.

TITLE V MAJOR SOURCE APPLICABILITY

16. A major source is a facility that has potential to emit 100 tons/year or more of any criteria pollutant or 10 tons/year or more of any single HAP or 25 tons/year or more of combined HAPs. This facility is not a major source of emissions. Therefore, this source is not a synthetic minor. The basis for this determination is provided in the PTE Detail Sheets at the end of this Review Report.

CRITERIA POLLUTANTS

17. This facility does not have the potential to emit (PTE) criteria pollutants at the major source levels (100 tons per year or more of any criteria pollutant). The facility is not a major source of criteria pollutant emissions which has been demonstrated through recordkeeping and reporting. The PTE criteria pollutant emissions detail sheet is provided at the end of this review report.

HAZARDOUS AIR POLLUTANTS (HAPs)

18. This facility does not have the potential to emit (PTE) hazardous air pollutants at the major source levels (10 tons per year or more of any singe HAP or 25 tons per year of combined HAPs) and has accepted PSELs below the major source thresholds. The facility's previous PTE in 2015, proposed PTE and 2021 Actual HAP emissions is as follows:

Hazardous Air Pollutant	Previous Permit$_{2015}$ Potential to Emit (tons/year)	Proposed Potential to Emit (tons/year)	2021 Actual Emissions (based on proposed EFs) (tons/year)
Acetaldehyde	1.26	1.32	0.94
Acrolein	0.94	0.20	0.14
Benzene	0.11	0.53	0.37
Ethyl Benzene	0.001	0.0065	0.0011
Ethyl Glycol	Not included	0.329	0.205
Formaldehyde	3.61	3.57	2.52
Hexane	0.001	0.0008	0.0004
***Methanol**	**5.92**	**6.40**	**4.53**
Methyl Isobutyl Ketone	Not included	0.241	0.170
Phenol	1.86	2.77	1.96
Propionaldehyde	0.50	3.33	2.36
Propylene	0.08	NA	NA
Styrene	Not included	0.139	0.098
Toluene	0.30	0.864	0.501
Xylenes	0.11	0.38	0.26
Veneer Dryer Organic & Metal NG Combustion HAP	Not included	0.0016	0.0008
Boiler Organic & Metal NG Combustion HAPs	Not included	0.008	0.004
TOTAL HAPs	**14.69**	**20.09**	**14.06**

***Methanol** is highest single HAP (PTE ~6.4 tons methanol per year) emitted by the facility and is the pollutant required to be tracked monthly.

19. As part of this permit renewal, several HAPs were added to the PTE calculations based on current/updated emission factors, the facility's 2020 ATEI (Air Toxics Emission Inventory) and HAPs included with the CAO (Cleaner Air Oregon) program.

20. The HAP emission estimates for adhesive use in veneer scarfing operations and HAP fugitives from the scarfer saw were added to the permit with the current renewal and assume worst-case emissions based on maximum HAP PTE as calculated in the HAP detail sheets at the end of this Review Report. The permit requires monitoring and recordkeeping of the current safety data sheets for all adhesives, inks and coatings used at the facility. Rolling 12-month HAP emissions calculations using the maximum HAP (% by weight) may be used to demonstrate compliance with the 9 TPY single and 24 TPY combined HAP limits, if the facility is not using operational parameters to determine compliance with the HAP PSELs

CLEANER AIR OREGON (CAO) RISK ASSESSMENT

21. The facility has not been called in to the CAO program by LRAPA at this time, and therefore has not yet performed a risk assessment.

    Under the CAO program, only existing sources that have been notified by LRAPA and new sources are required to perform risk assessments. This facility has not been notified by LRAPA and is therefore, not yet required to perform a risk assessment or report annual emissions of toxic air contaminants. LRAPA required reporting of approximately 600 toxic air contaminants in 2016 and regulates approximately 260 toxic air contaminants that have Risk Based Concentrations established in rule. All 187 hazardous air pollutants are on the list of approximately 600 toxic air contaminants. 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.

22. Air Toxics Emission Inventory (ATEI): As part of the CAO program, sources must submit an ATEI triennially for the purpose of assessing risk from air toxics emitted from the facility. A source must assess, estimate and report actual emissions of any air toxics emitted from the facility which are **listed air toxic contaminants** (~600 listed air toxics in OAR 340-247-8010 Table 1 which includes all 187 **hazardous** air pollutants in the LRAPA HAP program (see list in LRAPA title 44, Table 1)). In the 2020 ATEI, the facility reported a total of ~26,490 **pounds** of air toxics were emitted in 2020. Methanol was the highest single air toxic (HAP) emitted by the facility in 2020 with ~9,830 pounds of methanol reported in the facility's 2020 Triennial Air Toxic Emission Inventory.

TOXICS RELEASE INVENTORY (TRI)

23. 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 DEQ 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.

24. The facility is not subject to reporting to the TRI Program because it does not manufacture, process or use TRI-listed chemicals in quantities above the thresholds.

ADDITIONAL REGULATORY REQUIREMENTS & CONSIDERATIONS

25. The permit limits fugitive emissions from leaving the facility's property in accordance with LRAPA 48-015.

26. The permit limits visible emissions from air contaminant sources (EU-1 Veneer Dryers, EU-2 NG boiler and EU-3 cyclones & baghouse), other than wood-fired boilers, to an average of less than or equal to 20% opacity for a period or periods aggregating more than three minutes in any one (1) hour in accordance with LRAPA 32-010(3).

27. The permit limits particulate matter emissions for sources other than fuel burning equipment, refuse burning equipment, and fugitive emission sources, to 0.10 grains per dry standard cubic foot for sources installed, constructed, or modified after April 16, 2015, (EU-3 Material Handling System cyclones and baghouse (installed September 16, 2020), in accordance with LRAPA 32-015(2)(c).

28. The permit limits particulate matter emissions from fuel burning equipment sources (EU-2 NG Boiler installed October 11, 2019) to 0.10 grains per dry standard cubic foot for equipment installed, constructed, or modified after April 16, 2015, in accordance with LRAPA 32-030(2).

NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

29. 40 CFR Part 60, Subpart A & Dc (New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units) is applicable to the facility's natural gas boiler because the rated capacity is greater than 10 MMBTU/hr. Because the boiler is only capable of operating on natural gas, the permittee is not subject to Subpart Dc standards, testing and monitoring requirements for SO_2 (§60.42c, §60.44c & §60.46c) or for PM (§60.43c, §60.45c & §60.47c). The sole NSPS Subpart Dc applicable requirement for notification of the date of construction and actual startup of the boiler, in accordance with §60.48c(a), was met on September 30, 2019.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) APPLICABILITY

30. In January 2005, the facility submitted notification to EPA that the facility was a major source subject to the Plywood and Composite Wood Products (PWCP) NESHAP based on HAP emission estimates using ODEQ published emission factors. The facility conducted HAP emissions source tests on the veneer dryers in March 2005 and test results indicated that HAP emissions were well below the major HAP source threshold levels. On March 30, 2005, the facility sent EPA a 'Recension of Notification' that the facility was subject to the (PCWP) NESHAP. The facility is considered an "area source" of HAPs and therefore is **not** subject to the Plywood and Composite Wood Products which is applicable only to major sources. The current boiler EU-1 is fired on natural gas only and, per 40 CFR 63.11195(e), is not subject to NESHAP 6J Boiler MACT. The natural gas and oil-fired boilers previously permitted were also not subject NESHAP 6J Boiler MACT because the permit prohibited burning of fuel oil.

GREEENHOUSE GAS (GHG) REPORTING APPLICABILITY

31. The facility is subject to greenhouse gas reporting OAR Chapter 340, division 215 because actual greenhouse gas emissions are more than 2,500 metric tons (2,756 short tons) of CO2 equivalents per year. Annual greenhouse gas emissions for the facility are above the GHG reporting threshold of 2500 metric tons of CO_2e per year and the facility has reported GHG emissions each year since 2009.

TYPICALLY ACHIEVABLE CONTROL TECHNOLOGY (TACT) APPLICABILITY

32. LRAPA 32-008 requires an existing emission unit at a facility to meet TACT if: the emissions unit results in emissions of criteria pollutants greater than ten (10) tons per year of any gaseous pollutant or five (5) tons per year of PM; the emissions unit is not subject to the emissions standards under LRAPA title 32, title 33, title 39, or title 46 for the pollutants emitted; and if the facility is required to have a permit. The veneer dryers (EU-1) are subject to the standards in LRAPA title 33 and, therefore, are not subject to the TACT requirement. The NG boiler (EU-2) emits less than 10 tons per year of VOC, NO_X and CO and is not required to meet TACT but the facility complies with the 'good combustion practices' that LRAPA has determined as TACT for control of NG boilers.

NEW SOURCE REVIEW (NSR) AND PREVENTION OF SIGNIFICANT DETERIORATION (PSD)

33. The facility is located in an area that is designated attainment for all pollutants. There are no increases in the PSELs above the netting basis by more than the SER, so the facility isn't subject to PSD.

SOURCE TESTING
Results of source tests conducted by the facility are summarized below:

Emission Unit and Device		Test Date	Testing Production Rate	Test Results*
EU-1	Veneer Dryer 1	11/9/2000	14.142 MSF/hr ⅜" Heart Veneer	$VOC_{as\ propane}$: 2.39 lbs/hr $VOC_{as\ propane}$: 0.170 lbs/MSF ⅜"
	Veneer Dryer 2	11/9/2000	9.522 MSF/hr ⅜" **Sap** Veneer	$VOC_{as\ propane}$: 3.36 lbs/hr $VOC_{as\ propane}$: 0.350 lbs/MSF ⅜"
EU-1	Veneer Dryer 1	03/08/2005 & 03/09/2005	16.9 MSF/hr ⅜" Heart Veneer	Formaldehyde: 0.062 lb/hr Formaldehyde: 0.0037 lb/MSF ⅜" Methanol: 0.214 lb/hr Methanol: 0.0127 lb/MSF ⅜" Phenol: <0.027 lb/hr Phenol:<0.0016 lb/MSF ⅜" Acetaldehyde: <0.013 lb/hr Acetaldehyde:<7.4E-4 lb/MSF ⅜" Acrolein: <0.0061 lb/hr Acrolein:<3.6E-4 lb/MSF ⅜" Propionaldehyde: <0.0093 lb/hr Propionaldehyde:<5.5E-4 lb/MSF ⅜"
	Veneer Dryer 2	03/08/2005 & 03/09/2005	9.5 MSF/hr ⅜" **Sap** Veneer	Formaldehyde: 0.332 lb/hr **Formaldehyde: 0.035 lb/MSF ⅜"** Methanol: 0.452 lb/hr **Methanol: 0.048 lb/MSF ⅜"** Phenol: <0.093 lb/hr **Phenol:<0.0098 lb/MSF ⅜"** Acetaldehyde: <0.044 lb/hr **Acetaldehyde:<0.0046 lb/MSF ⅜"** Acrolein: <0.022 lb/hr **Acrolein:<0.0022lb/MSF ⅜"** Propionaldehyde: <0.033 lb/hr **Propionaldehyde:<0.0034 lb/MSF ⅜"**
EU-1	Veneer Dryer 1	03/07/2017	Runs 2 & 3 Avg = 11.233 MSF/hr ⅜" Heart Veneer	$PM_{corrected}$: 1.52 lbs/hr (Avg Run 2 & 3) $PM_{corrected}$: 0.14 lbs/MSF ⅜"(Avg Run 2 & 3) CO: 4.95 lbs/hr (Avg Run 2 &3) CO: 0.44 lbs/MSF ⅜"(Run 2 & 3) NO_x: 0.05 lbs/hr (Run 2 & 3) NO_x: 0.0045 lbs/MSF ⅜" (Run 2 & 3)
		03/08/2017	Runs 2 & 3 Avg = 12.148 MSF/hr ⅜" Heart Veneer	$VOC_{as\ propane}$: 6.9 lbs/hr (Avg Run 2 & 3) $VOC_{as\ propane}$: 0.57 lbs/MSF ⅜"(Avg Run 2 & 3) Formaldehyde: 0.22 lb/hr (Avg Run 2 & 3) Formaldehyde: 0.185 lb/MSF ⅜"(Avg Run 2& 3) Methanol: 0.33 lb/hr (Avg Run 2 & 3) Methanol: 0.027 lb/MSF ⅜"(Avg Run 2 & 3)
	Veneer Dryer 2	03/07/2017	Run 1 = 7.457 MSF/hr ⅜" **Sap** Veneer	$PM_{corrected}$: 1.34 lbs/hr (Run 1) $PM_{corrected}$: 0.18 lbs/MSF ⅜" (Run 1) CO: 8.22 lbs/hr (Run 1) CO: 1.10 lbs/MSF ⅜"(Run 1) NO_x: 0.09 lbs/hr (Run 1) NO_x: Avg: 0.012 lbs/MSF ⅜" (Run 1)
		03/08/2017	Run 1 = 7.555 MSF/hr ⅜" **Sap** Veneer	$VOC_{as\ propane}$: 7.4 lbs/hr (Run 1) $VOC_{as\ propane}$:0.98 lbs/MSF ⅜"(Run 1) Formaldehyde: 0.40 lb/hr (Run 1) Formaldehyde:0.053 lb/MSF ⅜"(Run1) Methanol: 0.24 lb/hr (Run 1) Methanol: 0.032 lb/MSF ⅜" (Run 1)

Note: Source test values in **BOLD** were used to establish worst-case PTE.

PROPOSED TESTING

34. Within 18 months of permit issuance, the facility must conduct emission factor verification tests for PM, NOx, CO, VOC and HAPs (methanol and formaldehyde) on EU-1 Veneer Dryers #1 & #2 to verify the emission factors established in the permit.

PUBLIC NOTICE

35. The proposed permit was on notice for public comment from November 22, 2022 to December, 21, 2022. No written comments were submitted during the 30-day comment period. If requested by ten (10) or more individuals or an individual representing a group of more than ten (10) individuals, there will be a public hearing following the comment period.

After the comment period and hearing (if requested), LRAPA will respond to comments received and then take final action to issue or deny the permit within 45 days of the close of the public comment or hearing period**. No public hearing was requested during the public comment period.**

Emission Detail Sheets TOC:

KEC/cw
12/22/2022

REGULATED POLLUTANTS PSEL & PTE DETAIL SHEET

Eagle Veneer, Inc., Junction City Facility - Plant Site Emission Limits (PSELs) / Potential to Emit (PTE) Regulated Pollutants Emissions Detail Sheet

Pollutant	Emission Unit EU-ID	Process/Device ID & Description	Maximum Annual Throughput Rate	Maximum Annual Throughput Units	Emission Factor (EF) Rate	Emission Factor (EF) Units	EF Reference	Emissions tons/yr
$PM/PM_{10}/PM_{2.5}$	EU-1:Veneer Dryers (2)	2 Natural gas & steam-heated (50:50 Combo) veneer dryers (VD-1 & VD-2) w/Burley Scrubbers (CD-1 & CD-2) @ 45% CE for PM	185,000	MSF 3/8"/yr	0.15	lb/MSF ⅜"	March 2017 ST Average of Sap & Heart Veneer Runs	13.9
	EU-2: Boiler (1)	27.72 MMBtu/hr NG Boiler (w/out fuel oil backup); installed Oct 2019; 8760 hrs/yr; 1cf NG = 1000 BTUs; Max NG 175.2 MMSCF/yr limit	175.2	MMSCF NG/yr	2.5	lb/MMSCF NG	DEQ AQGP-010 Sec. 13.1, Oct 2017: N.Gas Boiler Uncontrolled	0.219
	EU-3: Material Handling	Sawdust/wood trim controlled by 2 capped cyclones routed to a baghouse w/ 99% PM CE	4,820	BDT/yr	0.001	lb/BDT	DEQ AQGP-010 Sec. 13.2, Oct 2017: Cyclone w/baghouse control	0.002
							$PM/PM_{10}/PM_{2.5}$ PTE Totals >>	**14.1**
VOC	EU-1:Veneer Dryers (2) **Heated Zone**	2 Natural gas & steam-heated (50:50 Combo) veneer dryers (VD-1 & VD-2) w/Burley Scrubbers (CD-1 & CD-2) @ 45% CE for PM	185,000	MSF 3/8"/yr	0.260	lb/MSF ⅜"	November 2000 ST Average of SaP & Heart Runs	24.1
	EU-1:Veneer Dryers (2) **Cooling Sections**		185,000	MSF 3/8"/yr	0.054	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5.b, Oct 2017: Worst-case dryer cooling section EF (steam-heated dryer)	5.0
	EU-1 Veneer Dryers (2) **Fugitives**		185,000	MSF 3/8"/yr	0.06	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5.b, Oct 2017: Worst-case dryer fugitive EF (steam-heated dryer)	5.55
	EU-2: Boiler (1)	27.72 MMBtu/hr NG Boiler (w/out fuel oil backup); installed Oct 2019; 8760 hrs/yr; 1cf NG = 1000 BTUs; Max NG 175.2 MMSCF/yr limit	175.2	MMSCF NG/yr	5.5	lb/MMSCF NG	DEQ AQGP-010 Sec. 13.1 N.Gas Boiler Uncontrolled	0.48
	EU-4	Scarfer Saw	18,500	MSF 3/8"/yr	0.086	lb/MSF ⅜"	Assumes 10% Max production scarfed, DEQ AQGP-010 Sec 13.7 Skin Saw EF (Oct 2017)	0.8
	EU-AID-5	Veneer Scarfer Press Resin	18,500	lbs resin/yr	0.035	lb/lb resin appl	Sum of HAP Hexion April 2017 SDS (Worst-case/Max)	0.3
	EU-6	Marking Paints and Inks	3,550	lbs paint/yr	0.620	lb/lb paint appl	Sum of average paint VOC, Krylon Black SDS Aug 2018	1.10
							VOC PTE Total >>	**35.9**
NOx	EU-1:Veneer Dryers (2)	2 Natural gas & steam-heated (50:50 Combo) veneer dryers (VD-1 & VD-2) w/Burley Scrubbers (CD-1 & CD-2) @ 45% CE for PM	185,000	MSF 3/8"/yr	0.12	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5.a: NG-fired Veneer Dryer EF	11.1
	EU-2: Boiler (1)	27.72 MMBtu/hr NG Boiler (w/out fuel oil backup); installed Oct 2019; 8760 hrs/yr; 1cf NG = 1000 BTUs; Max NG 175.2 MMSCF/yr limit	175.2	MMSCF NG/yr	100	lb/MMSCF NG	DEQ AQGP-010 Sec. 13.1.a: N.Gas Boiler Uncontrolled	8.76
							NOx PTE Total >>	**19.9**
CO	EU-1:Veneer Dryers (2)	2 Natural gas & steam-heated (50:50 Combo) veneer dryers (VD-1 & VD-2) w/Burley Scrubbers (CD-1 & CD-2) @ 45% CE for PM	185,000	MSF 3/8"/yr	0.66	lb/MSF ⅜"	March 2017 ST Average of Sap & Heart Veneer Runs	61.1
	EU-2: Boiler (1)	27.72 MMBtu/hr NG Boiler (w/out fuel oil backup); installed Oct 2019; 8760 hrs/yr; 1cf NG = 1000 BTUs; Max NG 175.2 MMSCF/yr limit	175.2	MMSCF NG/yr	84	lb/MMSCF NG	DEQ AQGP-010 Sec. 13.1.a: N.Gas Boiler Uncontrolled	7.36
							CO PTE Total >>	**68.4**
SO_2	EU-1:Veneer Dryers (2)	2 Natural gas & steam-heated (50:50 Combo) veneer dryers (VD-1 & VD-2) w/Burley Scrubbers (CD-1 & CD-2) @ 45% CE for PM	175.2	MMSCF NG/yr	1.7	lb/MMSCF NG	DEQ AQGP-010 Sec. 13.1.a: N.Gas Boiler Uncontrolled	0.15
	EU-2: Boiler (1)	27.72 MMBtu/hr NG Boiler (w/out fuel oil backup); installed Oct 2019; 8760 hrs/yr; 1cf NG = 1000 BTUs; Max NG 175.2 MMSCF/yr limit	175.2	MMSCF NG/yr	1.7	lb/MMSCF NG	DEQ AQGP-010 Sec. 13.1.a: N.Gas Boiler Uncontrolled	0.15
							SO_2 PTE Total >>	**0.3**

FACILITY EMISSIONS SUMMARY

Pollutant	Baseline (TPY)	Netting Basis (TPY)	PSEL (TPY)	Increase Over Netting Basis (TPY)	Unassigned Emissions (TPY)	SER (TPY)
PM	95	78	53	-25	25	25
PM_{10}	89	68	53	-15	15	15
$PM_{2.5}$	NA	19	15	-4	5	10
SO_2	1	0	39	39	0	100
NO_X	3	0	39	39	0	40
CO	59	0	99	99	0	40
VOC	10	0	39	39	0	40
GHG_{2005}	14,079	0	74,000	74,000	0	75,000
HAP_{single}	NA	NA	9	NA	NA	NA
$HAP_{aggregate}$	NA	NA	24	NA	NA	NA

HAP PSEL & PTE DETAIL SHEET (page 1 of 2)

HAP PSEL/PTE Emission Detail Sheet							Page 1 of 2
Emission Unit: EU ID	**Pollutant**	**Maximum Production/ Process Rates**	**Units**	**Emission Factor**	**EF Units**	**EF Source/Reference**	**Emissions PTE tons/yr**
EU-1: Veneer Dryers (2) **Heating Zone HAPs:**	Acetaldehyde	185,000	MSF 3/8"	0.0046	lb/MSF ⅜"	March 2005 Dryer 2 Worst-case SAP Veneer Avg. EF	0.4255
	Acrolein	185,000	MSF 3/8"	0.0022	lb/MSF ⅜"	March 2005 Dryer 2 Worst-case SAP Veneer Avg. EF	0.2035
	Formaldehyde	185,000	MSF 3/8"	0.035	lb/MSF ⅜"	March 2005 Dryer 2 Worst-case SAP Veneer Avg. EF	3.2375
	Methanol	185,000	MSF 3/8"	0.048	lb/MSF ⅜"	March 2005 Dryer 2 Worst-case SAP Veneer Avg. EF	4.44
	Phenol	185,000	MSF 3/8"	0.0098	lb/MSF ⅜"	March 2005 Dryer 2 Worst-case SAP Veneer Avg. EF	0.9065
	Propionaldehyde	185,000	MSF 3/8"	0.034	lb/MSF ⅜"	March 2005 Dryer 2 Worst-case SAP Veneer Avg. EF	3.145
	Benzene	185,000	MSF 3/8"	0.0057	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Heating Zone EF	0.52725
	Methyl Isobutyl ketone (MIBK, hexone)	185,000	MSF 3/8"	0.0026	lb/MSF ⅜"	AP-42, Table 10.5-3, p. 10.5-15	0.2405
	Styrene	185,000	MSF 3/8"	0.0015	lb/MSF ⅜"	AP-42, Table 10.5-3, p. 10.5-15	0.13875
	Toluene	185,000	MSF 3/8"	0.0074	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Heating Zone EF	0.6845
	m,p-xylene	185,000	MSF 3/8"	0.0039	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Heating Zone EF	0.36075
EU-1: Veneer Dryers (2) **Cooling Section HAPs:**	Acetaldehyde	185,000	MSF 3/8"	0.0046	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Steam-Heated Worst-case Cooling EF	0.4255
	Formaldehyde	185,000	MSF 3/8"	0.0015	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Cooling EF	0.13875
	Methanol	185,000	MSF 3/8"	0.010	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Steam-Heated Worst-case Cooling EF	0.925
	Phenol	185,000	MSF 3/8"	0.010	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Cooling EF	0.925
	Propionaldehyde	185,000	MSF 3/8"	0.002	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Cooling EF	0.185
EU-1: Veneer Dryers (2) **Fugitive HAPs:**	Acetaldehyde	185,000	MSF 3/8"	0.005	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Steam-Heated Worst-case Fugitive EF	0.4625
	Formaldehyde	185,000	MSF 3/8"	0.002	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Fugitive EF	0.185
	Methanol	185,000	MSF 3/8"	0.01	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Steam-Heated Worst-case Fugitive EF	0.925
	Phenol	185,000	MSF 3/8"	0.01	lb/MSF ⅜"	DEQ AQGP-010 Sec.13.5b Direct NG-Fired Worst-case Fugitive EF	0.925
Aggregate Dryer HAP EFs (Heat+Cool+Fugitive EFs)	**Aggregate Heat+Cool+Fugitive HAP EFs**	**185,000**	**MSF 3/8"**	**0.210**	**lb/MSF ⅜"**	**Sum of all Veneer Dryer Heating, Cooling & Fugitive HAP EFs; see individual HAP references above**	**19.407**
EU-1: Veneer Dryers (2) **Organic & Metal HAPs from NG Combustion:** Note:Max Dryer NG MMSCF/yr usage based one half Facility NG limit of 350.3 MMSCF/yr	Polycyclic aromatic hydrocarbons (PAHs)	175.2	MMSCF/yr	0.0001	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; ½ Facility Annual NG limit*	8.75791E-06
	Benzo[a]pyrene	175.2	MMSCF/yr	0.0000012	lb/MMSCF	AP-42 Table 1.4-3: Organic HAP EFs	1.05095E-07
	Naphthalene	175.2	MMSCF/yr	0.0003	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; ½ Facility Annual NG limit*	2.62737E-05
	Arsenic and compounds	175.2	MMSCF/yr	0.0002	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	1.75158E-05
	Beryllium and compounds	175.2	MMSCF/yr	0.000012	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	1.05095E-06
	Cadmium and compounds	175.2	MMSCF/yr	0.0011	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	9.6337E-05
	Chromium VI, chromate & dichromate particulate	175.2	MMSCF/yr	0.0014	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	0.000122611
	Cobalt and compounds	175.2	MMSCF/yr	0.000084	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	7.35664E-06
	Ethyl benzene	175.2	MMSCF/yr	0.0069	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; ½ Facility Annual NG limit*	0.000604296
	Hexane	175.2	MMSCF/yr	0.0046	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; ½ Facility Annual NG limit*	0.000402864
	Lead and compounds	175.2	MMSCF/yr	0.0005	lb/MMSCF	DEQ AQGP-010 Section13.1.b: NG HAP	4.37895E-05
	Manganese and compounds	175.2	MMSCF/yr	0.00038	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	3.32801E-05
	Mercury and compounds	175.2	MMSCF/yr	0.00026	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	2.27706E-05
	Nickel compounds, insoluble	175.2	MMSCF/yr	0.0021	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	0.000183916
	Selenium and compounds	175.2	MMSCF/yr	0.000024	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	2.1019E-06
Aggregate Org & Metal Dryer HAP from NG Combustion (MMSCF/yr)	**Aggregate Organic & Metal HAPs not accounted for with MSF3/8" Production**	**175.2**	**MMSCF/yr**	**0.018**	**lb/MMSCF**	**Sum of Veneer Dryer Organic & Metal HAP EFs based on MMSCF/yr; see individual HAP EFs references above**	**0.0016**
Total EU-1 Veneer Dryer HAP PTE							**19.408**

HAP PSEL & PTE DETAIL SHEET (page 2 of 2)

HAP PSEL/PTE Emission Detail Sheet							Page 2 of 2
Emission Unit: EU ID	**Pollutant**	**Maximum Production/ Process Rates**	**Units**	**Emission Factor**	**EF Units**	**EF Source/Reference**	**Emissions PTE tons/yr**
EU-2: NG Boiler (Max 27.724 MMBtu/hr) Note:Max EU-2 Boiler NG MMSCF/yr usage based one half Facility NG limit of 350.3 MMSCF/yr	Benzene	175.2	MMSCF/yr	0.0058	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	5.08E-04
	Formaldehyde	175.2	MMSCF/yr	0.0123	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	1.08E-03
	Polycyclic aromatic hydrocarbons (PAHs)	175.2	MMSCF/yr	0.0001	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	8.76E-06
	Benzo[a]pyrene	175.2	MMSCF/yr	0.0000012	lb/MMSCF	AP-42 Table 1.4-3: Organic HAP EFs	1.05E-07
	Naphthalene	175.2	MMSCF/yr	0.0003	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	2.63E-05
	Acetaldehyde	175.2	MMSCF/yr	0.0031	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	2.71E-04
	Acrolein	175.2	MMSCF/yr	0.0027	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	2.36E-04
	Arsenic and compounds	175.2	MMSCF/yr	0.0002	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	1.75E-05
	Beryllium and compounds	175.2	MMSCF/yr	0.000012	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	1.05E-06
	Cadmium and compounds	175.2	MMSCF/yr	0.0011	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	9.63E-05
	Chromium VI, chromate & dichromate particulate	175.2	MMSCF/yr	0.0014	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	1.23E-04
	Cobalt and compounds	175.2	MMSCF/yr	0.000084	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	7.36E-06
	Ethyl benzene	175.2	MMSCF/yr	0.0069	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	6.04E-04
	Hexane	175.2	MMSCF/yr	0.0046	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	4.03E-04
Organic & Metal HAP:	Lead and compounds	175.2	MMSCF/yr	0.0005	lb/MMSCF	DEQ AQGP-010 Section13.1.b: NG HAP	4.38E-05
	Manganese and compounds	175.2	MMSCF/yr	0.00038	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	3.33E-05
	Mercury and compounds	175.2	MMSCF/yr	0.00026	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	2.28E-05
	Nickel compounds, insoluble	175.2	MMSCF/yr	0.0021	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	1.84E-04
	Selenium and compounds	175.2	MMSCF/yr	0.000024	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	2.10E-06
	Toluene	175.2	MMSCF/yr	0.0265	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	2.32E-03
	Vanadium (fume or dust)	175.2	MMSCF/yr	0.0023	lb/MMSCF	AP-42 Table 1.4-4: Metal EFs	2.01E-04
	Xylene (mixture), including m-xylene, o-xylene, p-x	175.2	MMSCF/yr	0.0197	lb/MMSCF	SCAQMD AB2588 - NG EF 10-100 MMBtu/hr, Table B-1; lb/MMBtu converted to lb/MMscf	1.73E-03
Aggregate Boiler HAP	Sum of all Boiler NG HAP EF	175.2	MMSCF/yr	**9.04E-02**	lb/MMSCF	Aggregate of NG Boiler EF:	**7.91E-03**
Total EU-2 NG Boiler HAP PTE							**0.008**
EU-4: Scarfer Saw HAP	Acetaldehyde	18,500	MSF 3/8" /yr	0.0009	lb/MSF ⅜"	Estimate 10% of Max Production, DEQ AQGP-010 13.7 Skin Saw EF (Oct. 2017)	0.008325
	Formaldehyde	18,500	MSF 3/8" /yr	0.0003	lb/MSF ⅜"	Estimate 10% of Max Production, DEQ AQGP-010 13.7 Skin Saw EF (Oct. 2017)	0.00278
	Methanol	18,500	MSF 3/8" /yr	0.012	lb/MSF ⅜"	Estimate 10% of Max Production, DEQ AQGP-010 13.7 Skin Saw EF (Oct. 2017)	0.111
EU-AID-5: Veneer Scarfer Press Adhesives/Epoxy	Ethylene Glycol	18,275	lbs adhesive/yr	0.03600	lb/lb adhesive	Hexion Cascoset 5830E April 2017 SDS, assumes 5% press fugitives	0.329
	Formaldehyde	18,275	lbs adhesive/yr	0.0002	lb/lb adhesive	Hexion Cascoset 5830E April 2017 SDS, assumes 5% press fugitives	0.002
	Methyl Isobutyl ketone (MIBK, hexone)	8,625	lbs adhesive/yr	0.000015	lb/lb adhesive	Hexion Cascophen 4001-8 April 2017 SDS, assumes %5 press adhesive fugitives	0.000
	Phenol	8,625	lbs adhesive/yr	0.003145	lb/lb adhesive	Hexion Cascophen 4001-8 April 2017 SDS, assumes %5 press adhesive fugitives	0.014
EU-6: Paints & Inks* No HAP containing inks are used at the facility	Ethyl benzene	3,550	lbs paint/yr	0.003	lb/lb paint	Max % by Weight HAP Krylon Green Spray Paint July 2018 SDS	0.005
	Toluene	3,550	lbs paint/yr	0.10	lb/lb paint	Max % by Weight HAP Krylon Black Spray Paint Aug. 2018 SDS	0.178
	Xylene (mixture), including m-xylene, o-xylene, p-x	3,550	lbs paint/yr	0.01	lb/lb paint	Max % by Weight HAP Krylon Green Spray Paint July 2018 SDS	0.018
Facility-Wide HAP PTE							**20.08**
Single Highest Facility HAP: Methanol							**6.40**

1978 BASELINE EMISSION RATE (BER): SUMMARY OF EMISSIONS

Baseline Emission Rate (BER): 1978 Baseline Year*			Pollutant						
Emission Unit	Production/ Throughput	Units	PM tons/yr	PM_{10} tons/year	$PM_{2.5}$ tons/year	SO_2 tons/year	NO_x tons/year	CO tons/year	VOC tons/year
Wood-fired Boiler	18,000	BDT/1978	64.8	58.5	NA	0.7	3.4	59.4	1.6
Cyclones with Baghouse	4000	BDT/1978	0.0	0.0	NA	NA	NA	NA	NA
Veneer Dryers (2) Steam-Htd	109,500	MSF 3/8"/1978	30.7	30.7	NA	NA	NA	NA	8.2
1978 Baseline Year BER Totals >>			95.5	89.2	NA	0.7	3.4	59.4	9.8

*The BER is based on 1978 permitted throughputs per the Facility's emission inventory (EI) filed with LRAPA and is reproduced here.

2005 GREENHOUSE GAS (GHG) BASELINE EMISSION RATE (BER):

Baseline Emission Rate (BER) for Greenhouse Gas Emissions: 2005 Baseline Year*

Fuel combustion greenhouse gas calculator

This sheet calculates greenhouse gas emissions from fuel combustion.

1) Enter the combustion emission sources at the facility (e.g. "boiler 1") in the 1st column.

2) In the 2nd column, select the fuel type used in each emissions unit. If more than one fuel type was used in a single emissions unit, you must enter that same emissions unit on multiple rows and then enter the different fuel types in each row.

3) Enter the fuel quantities in the 3rd column and specify the unit of measure in the 4th column. Emissions are then calculated in metric tons of carbon dioxide equivalent ($mtCO_2e$).

Enter emissions information				Convert to mmBtu				Emissions (kg/mmBtu)			CO_2 Equivalent			Anthropogenic ($mtCO_2e$)			Biogenic
Emissions unit[1]	Fuel Type[2]	Quantity[3]	Fuel units[3]	HHV Units	HHV Unit	HHV	mmBtu	CH_4	CO_2	N_2O	CH_4	CO_2	N_2O	CH_4	CO_2	N_2O	($mtCO_2e$)
Fuel Burning Equipment	Natural gas	234,365,000	Cubic ft	234,365,000	cubic ft	0.00103	240,458	0.001	53.06	0.0001	25	1	298	6	12,759	7	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0
				0	0	0	0	0	0	0	25	1	298	0	0	0	0

Anthropogenic combustion emissions ($mtCO_2e$):	12,772
Biogenic combustion emissions ($mtCO_2e$):	0
Total combustion emissions ($mtCO_2e$):	**12,772**

Conversion to short tons

Anthropogenic combustion emissions:	14,079
Biogenic combustion emissions:	0
Total combustion emissions:	**14,079**

Note that EPA's revised HHV for wood (changed from 15.38 to 17.48 mmBtu/short ton) is for a dry basis. Use the following formula to calculate a wet basis HHV:

(100-M)*17.48 mmBtu/short ton
M = moisture content (percent)

Use this new HHV to replace the default HHV in the calculator above once the "wood/woodwaste" fuel type is selected.

* The 2005 calendar year (Jan-Dec 2005) for GHG baseline emissions was established in the 2015 renewal and is based on the highest consecutive 12-month period of natural gas use between 2000 through 2010, in accordance with LRAPA 42-0048(1)(b).