

**FEDERALLY ENFORCEABLE STATE ORIGIN
PERMIT RENEWAL APPLICATION**

Permit No. F-19-021 R3

AI: 161081



**Independent Stave Company, LLC / Commonwealth
Cooperage**

201 Rodney Hitch Blvd
Morehead, KY 40351

Prepared By:

TRINITY CONSULTANTS

909 Wright's Summit Pkwy
Suite 230
Covington, KY 41011
859-341-8100

July 2024



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1. APPLICATION SUMMARY

1.1 Purpose of Application

Independent Stave Company, LLC (ISC), headquartered in Lebanon, Missouri, owns and operates several cooperages throughout Kentucky that produce barrels for the wine and spirits industry. Commonwealth Cooperage (CWC), owned by ISC and located in Morehead, Kentucky, specifically manufactures wood barrels for the Kentucky bourbon whiskey industry. CWC is currently regulated as a conditional major source under the Title V operating permit program based on its potential to emit CO, particulate matter (PM), PM₁₀, and PM_{2.5}. CWC operates under the authority of the Federally Enforceable State Origin Permit (FESOP) F-19-021 R3, issued by the Kentucky Division for Air Quality (KDAQ) on March 29, 2024.

This document and its appendices constitute the renewal application for the CWC facility, as required by Condition G.2.a. of the existing permit and 401 KAR 52:030, Section 12. This permit condition and the underlying regulation require that the renewal application be submitted at least six months prior to the expiration date of the permit. Due to recent staff turnover within ISC and changes to environmental responsibilities at CWC, the FESOP renewal application deadline was overlooked. Upon identifying this issue, ISC promptly commissioned Trinity Consultants (Trinity) to prepare the requisite renewal application.

This renewal application does not request additional permit changes relative to the FESOP revision issued by KDAQ on March 29, 2024 (F-19-021 R3), as the current permit accurately identifies applicable regulatory requirements and is based on up-to-date emission calculation methodologies for emission units (EUs) at CWC. Rather, this submission summarizes the scope of permit revisions that have been requested by CWC since issuance of the initial Conditional Major permit (F-19-021), as required for a FESOP renewal application. Specifically, in accordance with 401 KAR 52:030, Section 4(2)(c), this renewal application is limited to “only the information that is new or different from the most recent source-wide permit application.”

1.2 Organization of Air Permit Application

Following this introduction, a brief description of the existing process operations located at CWC is provided in Section 2. Section 2 also identifies each permit action undertaken by CWC since issuance of Permit No. F-19-021, which represents the initial construction/operating permit for the facility and was issued in response to the most recent (i.e., only) source-wide permit application submitted to date. Section 3 summarizes the requested emission calculation methodology updates documented by the permit actions submitted by CWC since the initial permit application. Section 4 provides an overview of applicable regulatory requirements under state and federal air quality programs that have changed since the original application.

A set of Kentucky’s DEP7007-series application forms are provided in Appendix A to summarize changes since the most recent source-wide permit application submitted in 2019. Specifically, AI forms are provided to facilitate the processing of this permit revision application, N forms are provided to show changes in the basis of emission calculations and stack information, and DD forms are provided to show changes in

Insignificant Activities (IAs) since the original permit application's submission.¹ Appendix B presents a summarized list of the current site-wide Potential-to-Emit (PTE), which is consistent with the current FESOP F-19-021 R3.

¹ As the current permit (F-19-021 R3) identifies the correct operating rate for each piece of equipment at the cooperage, revised A and B forms are not included in this renewal application. Likewise, as the current permit accurately identifies applicable regulatory requirements for the facility, revised V forms are not included.

2. EXISTING FACILITY AND OPERATIONS DESCRIPTION

2.1 Facility Location

The CWC facility is located at 201 Rodney Hitch Blvd., Morehead, Kentucky (Rowan County). The facility is approximately one mile south-east of the Morehead-Rowan County Airport. The Universal Transverse Mercator (UTM) coordinates of the center of the facility's property are (approximately) 4,232,057 meters (m) North and 275,341 m East (UTM Zone 17, NAD83).

2.2 Facility Operations Summary

The CWC facility produces charred wood barrels for the Kentucky bourbon industry. The facility operates two wood-fired boilers, storage silos, stave and head woodworking / charring operations, and steam-heated kilns, all of which facilitate the production of wood barrels. Stave and head woodworking operations consist of saws, planers, jointers, sanders, a steam tunnel, and a dryer.

2.3 Conditional Major Permit History Summary

The initial Conditional Major operating permit for the CWC facility was issued on September 30, 2019. Table 2-1 summarizes all permit actions that have been submitted since issuance of the initial permit.

Table 2-1. Summary of Permit Actions

APE# from ORR	Date	Type of Permit Action	Corresponding Permit Revision	Permit Action Summary
APE20190001	04/2019	Initial FESOP Permit	F-19-021	Independent Stave Company submitted a construction permit application to obtain a conditional major construction/operating permit for the CWC site.
APE20210002	03/2021	Section 502(b)(10) Change	F-19-021 R1	CWC submitted a Section 502(b)(10) change notification to add a steam-heated kiln to EU03 so that the permit reflected the two in the original permit application. This letter also addressed an error in previous permitting regarding emissions from the kiln operations.
APE20210003 (replaced by APE20220001)	10/2021	Minor Permit Revision	F-19-021 R1	CWC submitted a minor permit revision application to increase the process rate of the wood waste silo (EU04; EP-19) from 3.7 tons per hour (tph) to 4.7 tph and to include the truck wood waste loadout (EU04; EP-21) in the permit. CWC also replaced a cyclone on the wood waste silo with a bin vent as part of a design change to better control PM emissions.
APE20220001	01/2022	Minor Permit Revision	F-19-021 R1	As CWC finalized the facility construction phase, more discrepancies between the initial FESOP and as-constructed facility were discovered, and this minor permit revision application was submitted as a replacement for the 10/2021 minor permit revision application. Additional changes documented by this application included: <ul style="list-style-type: none"> • Update of the natural gas combustion rate of the head charring process (EP-14) and inclusion of wood charring rates for the barrel and head charring operations (EP-07 & EP-14) designated as EU02; reconciliation of the number of steam-heated kilns in EU03; • Clarification that the kilns (EU03) use steam rather than flue gas from EU01 for drying staves and headings; • Change in operating rates and control devices to multiple non-fugitive woodworking operations (EU04); and • Removal of roads T3 and T6 and change from paved to unpaved haul roads (EU05).
APE20220002	02/2022	Minor Permit Revision	F-19-021 R1	CWC submitted a minor permit revision application requesting the addition of two new kilns (EP-25 & EP-26) that are identical to the existing kilns (EP-01 & EP-24) in EU03. The addition of these kilns also resulted in a direct increase of vehicle traffic and associated emissions from EU05.
APE20230002	07/2023	Minor Permit Revision	F-19-021 R2	CWC submitted a minor permit revision application requesting the addition of two new lumber drying kilns (EP-27 & EP-28) and the redesignation of all six lumber drying kilns as IAs (IA-1).
APE20230003	08/2023	Off-Permit Change	F-19-021 R2	CWC submitted an off-permit change notification to provide notice of its planned installation of a new emissions unit qualifying for IA status, Toasting Operations (IA-2; EP-29). Toasting Operations consist of seventy-two (72) electric burners designed to prepare barrels for processing through the barrel charring process.
APE20230006	11/2023	Minor Permit Revision	F-19-021 R3	CWC submitted this permit revision application as the site installed new equipment and increased manufacturing capacity through the facility's non-fugitive woodworking (EU04) and charring operations (EU02) to increase the maximum barrel output of the site. In addition, CWC installed a new wood-fired boiler (EU01; EP-30) to provide additional steam capacity to the facility's steam-heated kilns (IA-1). This permit action also included the revision of the carbon monoxide (CO) emission factors used to estimate emissions from charring operations (EU02; EP-07 & EP-14) and toasting operations (IA-2; EP-29), the recharacterization of the emissions profile of the Haul Roads (EU05), the construction of Baghouse #2 CD5 to service non-fugitive woodworking units (EU04), and updated emission factors for Weima grinders (EU04; EP-22 & EP-23).

3. EMISSION CALCULATION UPDATES

In accordance with the provisions outlined in 401 KAR 52:030, Section 4(2)(c), Kentucky’s regulations allow applicants to limit the content of a renewal application to encompass solely information that is new or different from the most recent facility-wide permit application. The most recent (i.e., only) source-wide permit application submitted by CWC to date corresponds to the issuance of FESOP F-19-021. Accordingly, Section 3.1 of this renewal application details the air emissions impacts from permit actions occurring since the issuance of this initial construction/operating permit.

3.1 Emission Calculation Changes from Previous Permit Actions

Refer to Table 3-1 below for a summary of emission calculation updates that have occurred since submittal of the original 2019 permit application.

Table 3-1. Emission Calculation Impacts of Recent Permit Actions

APE# from ORR	Date	Type of Permit Action	Corresponding Permit Revision	Permit Action Emission Calculation Changes
APE202 10002	03/2021	Section 502(b)(10) Change Letter	F-19-021 R1	- Second steam heated Kiln (IA1; EP-24) added
APE202 10003	10/2021	Minor Permit Revision	F-19-021 R1	- Increased throughput of Wood Waste Silo (EU04; EP-19) and Wood Waste Truck Loadout (EU04; EP-21) - Replaced Wood Waste Silo control device with “Bin Vent”, no control efficiency change - Added Wood Waste Truck Loadout “Baghouse” control device, no control efficiency change
APE202 20001	01/2022	Minor Permit Revision	F-19-021 R1	- Increased wood throughput for Barrel Charring Operations (EU02; EP-07) - Decreased wood throughput for Head Charring Operations (EU02; EP-14) - Addition of emission calculations for the natural gas burners for the Head Charring Operations - Increased throughputs for various non-fugitive woodworking equipment (EU04; EP-04, EP-09, EP-10, EP-11, EP-13, EP-15, EP-19, EP-21 & EP-23) - Control device reconciliation for Crozer (EU04; EP-08), no control efficiency change - Removal of six Tongue & Groove Units (EU04; EP-12) - Change in Haul Road naming and vehicle-mile design for T1A, T1B, T2, T4, T5 & T7 (EU05) - Removal of Haul Roads T3 & T6 (EU05) - Disconnected emission points EP-19, EP-08, and EP-21 from stack CD1, added new stacks for each unit.
APE202 20002	02/2022	Minor Permit Revision	F-19-021 R1	- Two additional steam heated Kilns (IA1; EP-25 & EP-26) added.

APE# from ORR	Date	Type of Permit Action	Corresponding Permit Revision	Permit Action Emission Calculation Changes
APE202 30002	07/2023	Minor Permit Revision	F-19-021 R2	- Two additional steam heated Kilns (IA1; EP-27 & EP-28) added.
APE202 30003	08/2023	Off-Permit Change	F-19-021 R2	- Toasting Operations (IA2, EP-29) added.
APE202 30006	11/2023	Minor Permit Revision	F-19-021 R3	<ul style="list-style-type: none"> - Addition of a new Wood-Fired Boiler (EU01; EP-30) - Updated emission factors for the original Wood-Fired Boiler (EU01; EP-20) - Increased throughput and revised emission factors for PM, NO_x, and CO for Barrel and Head Charring Operations (EU03; EP-07 & EP-14) - Revised Natural Gas Combustion throughput and revised emission factor for CO for Barrel and Head Charring Operations - Revised throughputs for various non-fugitive woodworking units (EU04; EP-02, EP-03, EP-04, EP-05, EP-08, EP-09, EP-10, EP-11, EP-13, EP-16, EP-17, EP-19, EP-22 & EP-23) - Updated emission factors for Weima Grinders (EU04; EP-22 & EP-23) - Revised emission factors for Haul Roads T1A, T1B, T2, T4, T5 & T7 (EU05)

Please refer to the corresponding permit action for specifics and narrative concerning each respective emission unit. See Attachment B for revised N forms for each applicable unit with green formatting highlighting emission units, emission factors, emission rates, and throughputs that have changed since the original permit application.

4. APPLICABLE REQUIREMENTS SUMMARY

Section 4.1 provides general air quality regulatory information for the CWC facility, including the facility's status with respect to the Prevention of Significant Deterioration (PSD) and Title V permitting programs. Section 4.2 provides relevant regulatory updates to state and federal air regulatory requirements that are addressed in previous permitting actions occurring subsequent to the initial permit application submitted in 2019. Table 4-1 summarizes the regulatory changes associated with each of these permit actions.

4.1 Source Classification

4.1.1 PSD Permitting Program

The CWC facility is located in Rowan County, which has been designated by U.S. Environmental Protection Agency (EPA) as an unclassified/attainment area for all criteria pollutants.² Therefore, with respect to the federal New Source Review (NSR) permitting program, only PSD requirements could potentially apply to the source.

The PSD preconstruction permitting program in Kentucky has been approved by the EPA and incorporated into the Kentucky State Implementation Plan (SIP) under 401 KAR 51:017 to implement the federal requirements of 40 CFR 51.166 or 52.21. Requirements for a major source can be summarized as follows:

- One of the 28 listed stationary sources that emits, or has the potential to emit, 100 tons per year (tpy) or more of any regulated NSR pollutant, where fugitive emissions from the listed source category must be included in the total; or
- Any source not belonging to one of the listed source categories that emits, or has the potential to emit, 250 tpy or more of any regulated NSR pollutant, where fugitive emissions are not included in the total.

Based on CWC's Standard Industry Classification (SIC) code, it does not belong to one of the 28 listed source categories. As documented in CWC's permit applications, the facility's non-fugitive emissions have remained below the 250 tpy PSD major source threshold for each regulated criteria air pollutant. Therefore, CWC is an existing minor source with respect to the PSD permitting program.

4.1.2 Title V Permitting Program

40 CFR 70 contains the regulations implementing the federal Title V operating permit program. Kentucky has incorporated the provisions of this federal program in its Title V operating program at 401 KAR 52:020. As specified in 401 KAR 52:001, Section 1(46), a major source with respect to the Title V regulations encompasses facilities with potential emissions of 100 tpy of any regulated pollutant, 10 tpy of any single hazardous air pollutant (HAP), and/or 25 tpy of any combination of HAPs. CWC has opted to preclude the applicability of 401 KAR 52:020, *Title V Permits*, by ensuring compliance with a 90 ton per year limit on CO, PM, PM₁₀, and PM_{2.5} emissions. Therefore, the facility remains a minor source with respect to the Title V permitting program and is subject to FESOP requirements under 401 KAR 52:030.

² 401 KAR 51:010 Sections 4 through 9.

4.2 Regulatory Applicability Review

Table 4-1 identifies newly applicable air requirements triggered as a result of the permit actions undertaken by the CWC facility since issuance of the initial FESOP permit on September 30, 2019. These entries are sorted chronologically by KDAQ's activity number for each permit action.

Table 4-1. Regulatory Impacts of Recent Permit Actions

APE# from ORR	Date	Type of Permit Action	Corresponding Permit Revision	Newly Applicable Regulations Associated with Permit Action
APE2021 0002	03/2021	Section 502(b)(10) Change	F-19-021 R1	No new Regulations – New Kiln added subject to 401 KAR 59:010 and 401 KAR 63:020.
APE2021 0003	10/2021	Minor Permit Revision	F-19-021 R1	401 KAR 59:010 – Revised throughputs for EP-19 and EP-21 affected the applicability of the process weight rule.
APE2022 0001	01/2022	Minor Permit Revision	F-19-021 R1	No new Regulations – Specified feed gas for EU02, changed EU04 operating rates and changed EU05 basis. 401 KAR 59:010 remained applicable to EU02 and EU04, 401 KAR 63:020 remained applicable to EU02, and 401 KAR 63:010 remained applicable to EU05.
APE2022 0002	02/2022	Minor Permit Revision	F-19-021 R1	No new Regulations – New Kiln added subject to 401 KAR 59:010 and 401 KAR 63:020.
APE2023 0002	07/2023	Minor Permit Revision	F-19-021 R2	401 KAR 52:030, Section 6. – Kilns redesignated as IAs and must remain compliant with general regulations 401 KAR 59:010 and 401 KAR 63:020.
APE2023 0003	08/2023	Off-Permit Change	F-19-021 R2	401 KAR 52:030, Section 6. – Toasting operations permitted as IA and must comply with general regulations 401 KAR 59:010 and 401 KAR 63:020.
APE2023 0006	11/2023	Minor Permit Revision	F-19-021 R3	401 KAR 59:015: New Indirect Heat Exchangers – CWC installed a new boiler (EP-30) that pushed the total heat input for the site over the 10 MMBtu/hr threshold set forth in 401 KAR 59:015 Section 4(1)(c) and Section 5(1)(c)3. The PM and SO ₂ limits for the new boiler were decreased from 0.56 lb/MMBtu to 0.48 lb/MMBtu and from 5.0 lb/MMBtu to 3.818 lb/MMBtu, respectively.

APPENDIX A. DEP7007 APPLICATION FORMS

DEP7007AI – Administrative Information
DEP7007N – Source Emissions Profile
DEP7007DD – Insignificant Activities

<p style="text-align: center;">Division for Air Quality</p> <p style="text-align: center;">300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999</p>	<h2 style="margin: 0;">DEP7007AI</h2> <h3 style="margin: 5px 0 0 0;">Administrative Information</h3> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.1: Source Information</p> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.2: Applicant Information</p> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.3: Owner Information</p> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.4: Type of Application</p> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.5: Other Required Information</p> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.6: Signature Block</p> <p style="margin: 5px 0 0 20px;"><input type="checkbox"/> Section AI.7: Notes, Comments, and Explanations</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Additional Documentation</p> <p>None</p> <p><input type="checkbox"/> Additional Documentation attached</p> </div>																									
<p>Source Name: <u>Commonwealth Cooperage</u></p> <p>KY EIS (AFS) #: 21- <u>205-00068</u></p> <p>Permit #: <u>F-19-021 R3</u></p> <p>Agency Interest (AI) ID: <u>161081</u></p> <p>Date: <u>7/30/2024</u></p>																											
<h3 style="margin: 0;">Section AI.1: Source Information</h3> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Physical Location</td> <td style="width: 15%;">Street:</td> <td colspan="3"><u>201 RODNEY HITCH BLVD</u></td> </tr> <tr> <td>Address:</td> <td>City:</td> <td>County:</td> <td>Zip Code:</td> <td><u>40351</u></td> </tr> <tr> <td></td> <td>Street or P.O. Box:</td> <td colspan="3"><u>PO BOX 104</u></td> </tr> <tr> <td>Mailing Address:</td> <td>City:</td> <td>State:</td> <td>Zip Code:</td> <td><u>65536</u></td> </tr> <tr> <td></td> <td><u>LEBANON</u></td> <td><u>MO</u></td> <td></td> <td></td> </tr> </table>			Physical Location	Street:	<u>201 RODNEY HITCH BLVD</u>			Address:	City:	County:	Zip Code:	<u>40351</u>		Street or P.O. Box:	<u>PO BOX 104</u>			Mailing Address:	City:	State:	Zip Code:	<u>65536</u>		<u>LEBANON</u>	<u>MO</u>		
Physical Location	Street:	<u>201 RODNEY HITCH BLVD</u>																									
Address:	City:	County:	Zip Code:	<u>40351</u>																							
	Street or P.O. Box:	<u>PO BOX 104</u>																									
Mailing Address:	City:	State:	Zip Code:	<u>65536</u>																							
	<u>LEBANON</u>	<u>MO</u>																									
<h3 style="margin: 0;">Standard Coordinates for Source Physical Location</h3> <p>Longitude: <u>-83.5655</u> (decimal degrees) Latitude: <u>38.209614</u> (decimal degrees)</p>																											
<p>Primary (NAICS) Category: <u>Wood Container and Pallet Mfg</u> Primary NAICS #: <u>321920</u></p>																											

Classification (SIC) Category:		<u>Wood Containers</u>	Primary SIC #:		<u>2449</u>
Briefly discuss the type of business conducted at this site:		<u>Manufacture of Bourbon Barrels</u>			
Description of Area Surrounding Source:	<input checked="" type="checkbox"/> Rural Area	<input type="checkbox"/> Industrial Park	<input type="checkbox"/> Residential Area	Is any part of the source located on federal land?	<input type="checkbox"/> Yes
	<input type="checkbox"/> Urban Area	<input type="checkbox"/> Industrial Area	<input type="checkbox"/> Commercial Area		<input checked="" type="checkbox"/> No
Approximate distance to nearest residence or commercial property:	<u>800</u>	Property Area:	<u>35 acres</u>	Is this source portable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?					
NPDES/KPDES:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A		
Solid Waste:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
RCRA:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
UST:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A		
Type of Regulated Waste Activity:	<input type="checkbox"/> Mixed Waste Generator	<input type="checkbox"/> Generator	<input type="checkbox"/> Recycler	<input type="checkbox"/> Other: _____	
	<input type="checkbox"/> U.S. Importer of Hazardous Waste	<input type="checkbox"/> Transporter	<input type="checkbox"/> Treatment/Storage/Disposal Facility	<input checked="" type="checkbox"/> N/A	

Section AI.2: Applicant Information

Applicant Name: Johnathan Sullivan

Title: (if individual) 1st Shift Heading Supervisor

Mailing Address: **Street or P.O. Box:** 201 RODNEY HITCH BLVD
City: MOREHEAD **State:** KY **Zip Code:** 40351

Email: (if individual) Johnathan.Sullivan@commonwealthcooperage.com

Phone: 703-938-4919

Technical Contact

Name: Same As Applicant

Title: _____

Mailing Address: **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

Air Permit Contact for Source

Name: Same As Applicant

Title: _____

Mailing Address: **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

Section AI.3: Owner Information

Owner same as applicant

Name: _____

Title: _____

Mailing Address: **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name	Position
_____	_____
_____	_____
_____	_____

Section A1.5 Other Required Information

Indicate the documents attached as part of this application:

- | | |
|--|---|
| <input type="checkbox"/> DEP7007A Indirect Heat Exchangers and Turbines | <input type="checkbox"/> DEP7007CC Compliance Certification |
| <input type="checkbox"/> DEP7007B Manufacturing or Processing Operations | <input checked="" type="checkbox"/> DEP7007DD Insignificant Activities |
| <input type="checkbox"/> DEP7007C Incinerators and Waste Burners | <input type="checkbox"/> DEP7007EE Internal Combustion Engines |
| <input type="checkbox"/> DEP7007F Episode Standby Plan | <input type="checkbox"/> DEP7007FF Secondary Aluminum Processing |
| <input type="checkbox"/> DEP7007J Volatile Liquid Storage | <input type="checkbox"/> DEP7007GG Control Equipment |
| <input type="checkbox"/> DEP7007K Surface Coating or Printing Operations | <input type="checkbox"/> DEP7007HH Haul Roads |
| <input type="checkbox"/> DEP7007L Mineral Processes | <input type="checkbox"/> Confidentiality Claim |
| <input type="checkbox"/> DEP7007M Metal Cleaning Degreasers | <input type="checkbox"/> Ownership Change Form |
| <input checked="" type="checkbox"/> DEP7007N Source Emissions Profile | <input type="checkbox"/> Secretary of State Certificate |
| <input type="checkbox"/> DEP7007P Perchloroethylene Dry Cleaning Systems | <input type="checkbox"/> Flowcharts or diagrams depicting process |
| <input type="checkbox"/> DEP7007R Emission Offset Credit | <input type="checkbox"/> Digital Line Graphs (DLG) files of buldings, roads, etc. |
| <input type="checkbox"/> DEP7007S Service Stations | <input type="checkbox"/> Site Map |
| <input type="checkbox"/> DEP7007T Metal Plating and Surface Treatment Operations | <input type="checkbox"/> Map or drawing depicting location of facility |
| <input type="checkbox"/> DEP7007V Applicable Requirements and Compliance Activities | <input type="checkbox"/> Safety Data Sheet (SDS) |
| <input type="checkbox"/> DEP7007Y Good Engineering Practice and Stack Height Determination | <input type="checkbox"/> Emergency Response Plan |
| <input type="checkbox"/> DEP7007AA Compliance Schedule for Non-complying Emission Units | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> DEP7007BB Certified Progress Report | |

Section A1.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.



Authorized Signature

Mike Knudson

Type or Printed Name of Signatory

7-30-24

Date

General Manager

Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007N

Source Emissions Profile

- Section N.1: Emission Summary
- Section N.2: Stack Information
- Section N.3: Fugitive Information
- Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: Commonwealth Cooperage

KY EIS (AFS) #: 21- 205-00068

Permit #: F-19-021 R3

Agency Interest (AI) ID: 161081

Date: 7/30/2024

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	PM	6.76	AP-42 Table 1.6-1, Dry Wood	100%	85%	3.72	0.56	16.29	2.44
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	PM10	6.09	AP-42 Table 1.6-1, Dry Wood	100%	85%	3.35	0.50	14.66	2.20
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	PM2.5	5.24	AP-42 Table 1.6-1, Dry Wood	100%	85%	2.88	0.43	12.63	1.89
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	NOx	8.28	AP-42 Table 1.6-2, Dry Wood	N/A	N/A	4.56	N/A	19.96	N/A
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	CO	10.14	AP-42 Table 1.6-2, Dry Wood	N/A	N/A	5.58	N/A	24.44	N/A
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	VOC	0.29	AP-42 Table 1.6-3	N/A	N/A	0.16	N/A	0.69	N/A
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	SOx	0.42	AP-42 Table 1.6-2, Dry Wood	N/A	N/A	0.23	N/A	1.02	N/A
EU-01 EP-20	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	Total HAPs	0.64	AP-42 Table 1.6-3	N/A	N/A	0.35	N/A	1.54	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	PM	6.76	AP-42 Table 1.6-1, Dry Wood	100%	85%	3.72	0.56	16.29	2.44
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	PM10	6.09	AP-42 Table 1.6-1, Dry Wood	100%	0.85	3.35	0.50	14.66	2.20
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	PM2.5	5.24	AP-42 Table 1.6-1, Dry Wood	100%	0.85	2.88	0.43	12.63	1.89
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	NOx	8.28	AP-42 Table 1.6-2, Dry Wood	N/A	N/A	4.56	N/A	19.96	N/A
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	CO	10.14	AP-42 Table 1.6-2, Dry Wood	N/A	N/A	5.58	N/A	24.44	N/A
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	VOC	0.29	AP-42 Table 1.6-3	N/A	N/A	0.16	N/A	0.69	N/A
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	SOx	0.42	AP-42 Table 1.6-2, Dry Wood	N/A	N/A	0.23	N/A	1.02	N/A
EU-01 EP-30	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Wood Fired Heater	N/A	N/A	N/A	0.55 tons/hr	Total HAPs	0.64	AP-42 Table 1.6-3	N/A	N/A	0.35	N/A	1.54	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	PM	7.60	AP-42 Table 1.4-2	N/A	N/A	0.02	N/A	0.067	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	PM10	7.60	AP-42 Table 1.4-2	N/A	N/A	0.02	N/A	0.067	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	PM2.5	7.60	AP-42 Table 1.4-2	N/A	N/A	0.02	N/A	0.067	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	NOx	100.00	AP-42 Table 1.4-1	N/A	N/A	0.20	N/A	0.876	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	CO	84.00	AP-42 Table 1.4-1	N/A	N/A	0.17	N/A	0.736	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	VOC	5.50	AP-42 Table 1.4-2	N/A	N/A	0.01	N/A	0.048	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	SOx	0.60	AP-42 Table 1.4-2	N/A	N/A	0.00	N/A	0.005	N/A
EU-02 EP-06	2.0 MMBtu/hr Dry Fired Operations	01	Natural Gas Combustion	N/A	N/A	N/A	0.002 MMscf/hr	Methane	2.30	AP-42 Table 1.4-2	N/A	N/A	0.00	N/A	0.020	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	PM	6.76	AP-42 Table 1.6-1	N/A	N/A	3.85	N/A	16.87	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	PM10	6.09	AP-42 Table 1.6-1	N/A	N/A	3.47	N/A	15.19	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	PM2.5	5.24	AP-42 Table 1.6-1	N/A	N/A	2.99	N/A	13.08	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	NOx	8.28	AP-42 Table 1.6-2	N/A	N/A	4.72	N/A	20.67	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	13.706 ton/hr (total wood bbl throughput)	CO	0.34	Based on 9/19/2023 head char test results	N/A	N/A	4.63	N/A	20.27	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	VOC	0.29	AP-42 Table 1.6-3	N/A	N/A	0.16	N/A	0.72	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	SOx	0.42	AP-42 Table 1.6-2	N/A	N/A	0.24	N/A	1.05	N/A
EU-02 EP-07	Barrel Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.5696 ton/hr (wood burned from barrels)	Total HAPs	0.64	AP-42 Table 1.6-3; AP-42 Table 1.6-4	N/A	N/A	0.13	N/A	0.56	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	PM	7.60	AP-42 Table 1.4-2	N/A	N/A	0.038	N/A	0.17	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	PM10	7.60	AP-42 Table 1.4-2	N/A	N/A	0.038	N/A	0.17	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	PM2.5	7.60	AP-42 Table 1.4-2	N/A	N/A	0.038	N/A	0.17	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	NOx	100	AP-42 Table 1.4-1	N/A	N/A	0.50	N/A	2.20	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	CO	--	--	N/A	N/A	--	N/A	--	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	VOC	5.50	AP-42 Table 1.4-2	N/A	N/A	0.028	N/A	0.12	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	SOx	0.60	AP-42 Table 1.4-2	N/A	N/A	3.02E-03	N/A	0.013	N/A
EU-02 EP-07	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.005 MMscf/hr	Formaldehyde	0.08	AP-42 Table 1.4-3	N/A	N/A	3.77E-04	N/A	1.65E-03	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	PM	6.76	AP-42 Table 1.6-1	N/A	N/A	3.00	N/A	13.16	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	PM10	6.09	AP-42 Table 1.6-1	N/A	N/A	2.70	N/A	11.84	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	PM2.5	5.24	AP-42 Table 1.6-1	N/A	N/A	2.33	N/A	10.20	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	NOx	8.28	AP-42 Table 1.6-2	N/A	N/A	3.68	N/A	16.12	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	3.35 ton/hr (total wood head throughput)	CO	0.34	Based on 9/19/2023 head char test results	N/A	N/A	1.130	N/A	4.95	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	VOC	0.29	AP-42 Table 1.6-3	N/A	N/A	0.128	N/A	0.56	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	SOx	0.42	AP-42 Table 1.6-2	N/A	N/A	0.188	N/A	0.82	N/A
EU-02 EP-14	Head Charring Operations	01	Wood Burned	N/A	N/A	N/A	0.44 ton/hr (wood burned from heads)	Total HAPs	0.64	AP-42 Table 1.6-3; AP-42 Table 1.6-4	N/A	N/A	0.128	N/A	0.56	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	PM	7.60	AP-42 Table 1.4-2	N/A	N/A	9.31E-03	N/A	0.041	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	PM10	7.60	AP-42 Table 1.4-2	N/A	N/A	9.31E-03	N/A	0.041	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	PM2.5	7.60	AP-42 Table 1.4-2	N/A	N/A	9.31E-03	N/A	0.041	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	NOx	100.00	AP-42 Table 1.4-1	N/A	N/A	0.12	N/A	0.54	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	CO	--	--	N/A	N/A	--	N/A	--	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	VOC	5.50	AP-42 Table 1.4-2	N/A	N/A	6.74E-03	N/A	0.030	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	SOx	0.60	AP-42 Table 1.4-2	N/A	N/A	7.35E-04	N/A	3.22E-03	N/A
EU-02 EP-14	1.25 MMBtu/hr Head Char Natural Gas Burners	02	Natural Gas Combustion	N/A	N/A	N/A	0.001 MMscf/hr	Formaldehyde	0.08	AP-42 Table 1.4-3	N/A	N/A	9.19E-05	N/A	4.03E-04	N/A
EU-04 EP-02	Stave Equalizer	01	Tons Wood Processed	N/A	N/A	N/A	19.35 tons/hr	PM	4.30	SC DHEC	100%	99%	83.21	0.83	364	3.64
EU-04 EP-02	Stave Equalizer	01	Tons Wood Processed	N/A	N/A	N/A	19.35 tons/hr	PM10	2.10	SC DHEC	100%	99%	40.64	0.41	178	1.78
EU-04 EP-02	Stave Equalizer	01	Tons Wood Processed	N/A	N/A	N/A	19.35 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	15.03	0.75	65.85	3.29
EU-04 EP-03	Stave Planer	01	Tons Wood Processed	N/A	N/A	N/A	18.86 tons/hr	PM	4.30	SC DHEC	100%	99%	81.10	0.81	355	3.55
EU-04 EP-03	Stave Planer	01	Tons Wood Processed	N/A	N/A	N/A	18.86 tons/hr	PM10	2.10	SC DHEC	100%	99%	39.61	0.40	173	1.73
EU-04 EP-03	Stave Planer	01	Tons Wood Processed	N/A	N/A	N/A	18.86 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	14.65	0.73	64.19	3.21
EU-04 EP-04	G5 Machines	01	Tons Wood Processed	N/A	N/A	N/A	16.84 tons/hr	PM	4.30	SC DHEC	100%	99%	72.41	0.72	317	3.17
EU-04 EP-04	G5 Machines	01	Tons Wood Processed	N/A	N/A	N/A	16.84 tons/hr	PM10	2.10	SC DHEC	100%	99%	35.36	0.35	155	1.55
EU-04 EP-04	G5 Machines	01	Tons Wood Processed	N/A	N/A	N/A	16.84 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	13.08	0.65	57.31	2.87
EU-04 EP-05	Rip Saw & Cutoff Saw	01	Tons Wood Processed	N/A	N/A	N/A	0.9 tons/hr	PM	4.30	SC DHEC	100%	99%	3.87	0.039	16.95	0.17
EU-04 EP-05	Rip Saw & Cutoff Saw	01	Tons Wood Processed	N/A	N/A	N/A	0.9 tons/hr	PM10	2.10	SC DHEC	100%	99%	1.89	0.019	8.28	0.083
EU-04 EP-05	Rip Saw & Cutoff Saw	01	Tons Wood Processed	N/A	N/A	N/A	0.9 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	0.70	0.035	3.06	0.15
EU-04 EP-08	Crozer	01	Tons Wood Processed	N/A	N/A	N/A	11.76 tons/hr	PM	4.30	SC DHEC	100%	99%	50.57	0.51	221	2.21
EU-04 EP-08	Crozer	01	Tons Wood Processed	N/A	N/A	N/A	11.76 tons/hr	PM10	2.10	SC DHEC	100%	99%	24.70	0.25	108	1.08
EU-04 EP-08	Crozer	01	Tons Wood Processed	N/A	N/A	N/A	11.76 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	9.14	0.46	40.02	2.00

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-04 EP-09	Heading Planer	01	Tons Wood Processed	N/A	N/A	N/A	3.67 tons/hr	PM	4.30	SC DHEC	100%	99%	15.78	0.16	69	0.69
EU-04 EP-09	Heading Planer	01	Tons Wood Processed	N/A	N/A	N/A	3.67 tons/hr	PM10	2.10	SC DHEC	100%	99%	7.71	0.077	34	0.34
EU-04 EP-09	Heading Planer	01	Tons Wood Processed	N/A	N/A	N/A	3.67 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	2.85	0.14	12.49	0.62
EU-04 EP-10	Heading Jointers	01	Tons Wood Processed	N/A	N/A	N/A	3.38 tons/hr	PM	4.30	SC DHEC	100%	99%	14.53	0.15	63.66	0.64
EU-04 EP-10	Heading Jointers	01	Tons Wood Processed	N/A	N/A	N/A	3.38 tons/hr	PM10	2.10	SC DHEC	100%	99%	7.10	0.071	31.09	0.31
EU-04 EP-10	Heading Jointers	01	Tons Wood Processed	N/A	N/A	N/A	3.38 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	2.63	0.13	11.50	0.58
EU-04 EP-11	Rip Saws & Jointers	01	Tons Wood Processed	N/A	N/A	N/A	0.76 tons/hr	PM	4.30	SC DHEC	100%	99%	3.27	0.03	14.31	0.14
EU-04 EP-11	Rip Saws & Jointers	01	Tons Wood Processed	N/A	N/A	N/A	0.76 tons/hr	PM10	2.10	SC DHEC	100%	99%	1.60	0.016	6.99	0.07
EU-04 EP-11	Rip Saws & Jointers	01	Tons Wood Processed	N/A	N/A	N/A	0.76 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	0.59	0.03	2.59	0.13
EU-04 EP-12	Tongue & Groove (6)	04	Tons Wood Processed	N/A	N/A	N/A	1.65 tons/hr	PM10	2.10	SC DHEC	100%	99%	3.47	0.03	15.18	0.15
EU-04 EP-12	Tongue & Groove (6)	04	Tons Wood Processed	N/A	N/A	N/A	1.65 tons/hr	PM2.5	0.78	SC DHEC	100%	99%	1.28	0.013	5.62	0.06
EU-04 EP-13	Rounder	01	Tons Wood Processed	N/A	N/A	N/A	2.903 tons/hr	PM	4.30	SC DHEC	100%	99%	12.48	0.12	54.68	0.55
EU-04 EP-13	Rounder	01	Tons Wood Processed	N/A	N/A	N/A	2.903 tons/hr	PM10	2.10	SC DHEC	100%	99%	6.10	0.061	26.70	0.27
EU-04 EP-13	Rounder	01	Tons Wood Processed	N/A	N/A	N/A	2.903 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	2.26	0.11	9.88	0.49
EU-04 EP-16	Bung Bore	01	Tons Wood Processed	N/A	N/A	N/A	14.36 tons/hr	PM	4.30	SC DHEC	100%	99%	61.75	0.62	270	2.70
EU-04 EP-16	Bung Bore	01	Tons Wood Processed	N/A	N/A	N/A	14.36 tons/hr	PM10	2.10	SC DHEC	100%	99%	30.16	0.30	132	1.32
EU-04 EP-16	Bung Bore	01	Tons Wood Processed	N/A	N/A	N/A	14.36 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	11.16	0.56	48.87	2.44
EU-04 EP-17	Copy Saw	01	Tons Wood Processed	N/A	N/A	N/A	0.2 tons/hr	PM	4.30	SC DHEC	100%	99%	0.86	8.60E-03	3.77	0.04
EU-04 EP-17	Copy Saw	01	Tons Wood Processed	N/A	N/A	N/A	0.2 tons/hr	PM10	2.10	SC DHEC	100%	99%	0.42	4.20E-03	1.84	0.018
EU-04 EP-17	Copy Saw	01	Tons Wood Processed	N/A	N/A	N/A	0.2 tons/hr	PM2.5	0.78	SC DHEC	100%	95%	0.16	7.77E-03	0.68	0.034

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-04 EP-19	Wood Waste Silo	01	Tons Wood Processed	N/A	N/A	N/A	4.7 tons/hr	PM	2.00	SC DHEC	100%	99%	9.40	0.094	41.17	0.41
EU-04 EP-19	Wood Waste Silo	01	Tons Wood Processed	N/A	N/A	N/A	4.7 tons/hr	PM10	1.00	SC DHEC	100%	99%	4.70	0.047	20.59	0.21
EU-04 EP-19	Wood Waste Silo	01	Tons Wood Processed	N/A	N/A	N/A	4.7 tons/hr	PM2.5	0.37	SC DHEC	100%	95%	1.74	0.087	7.62	0.38
EU-04 EP-22	Weima Grinder	01	Tons Wood Processed	N/A	N/A	N/A	1.04 tons/hr	PM	4.30	South Carolina Wood Processing Emission Factors	100%	99%	4.47	0.045	19.59	0.196
EU-04 EP-22	Weima Grinder	01	Tons Wood Processed	N/A	N/A	N/A	1.04 tons/hr	PM10	2.10	South Carolina Wood Processing Emission Factors	100%	99%	2.18	0.022	9.57	0.096
EU-04 EP-22	Weima Grinder	01	Tons Wood Processed	N/A	N/A	N/A	1.04 tons/hr	PM2.5	0.78	South Carolina Wood Processing Emission Factors	100%	95%	0.81	0.040	3.54	0.18
EU-04 EP-23	Weima Grinder	01	Tons Wood Processed	N/A	N/A	N/A	1.148 tons/hr	PM	4.30	South Carolina Wood Processing Emission Factors	100%	99%	4.94	0.049	21.62	0.22
EU-04 EP-23	Weima Grinder	01	Tons Wood Processed	N/A	N/A	N/A	1.148 tons/hr	PM10	2.10	South Carolina Wood Processing Emission Factors	100%	99%	2.41	0.024	10.56	0.11
EU-04 EP-23	Weima Grinder	01	Tons Wood Processed	N/A	N/A	N/A	1.148 tons/hr	PM2.5	0.78	South Carolina Wood Processing Emission Factors	100%	95%	0.89	0.045	3.91	0.20
EU-05 EP-T1A	Dried material truck load and unload 1600ft	01	Paved Haul Road	N/A	N/A	N/A	4.70 VMT/Day	PM	14.85	AP 42 Chapter 13.2.1	N/A	N/A	2.67	N/A	11.70	N/A
EU-05 EP-T1A	Dried material truck load and unload 1600ft	01	Paved Haul Road	N/A	N/A	N/A	4.70 VMT/Day	PM10	2.97	AP 42 Chapter 13.2.1	N/A	N/A	0.53	N/A	2.34	N/A
EU-05 EP-T1A	Dried material truck load and unload 1600ft	01	Paved Haul Road	N/A	N/A	N/A	4.70 VMT/Day	PM2.5	0.73	AP 42 Chapter 13.2.1	N/A	N/A	0.13	N/A	0.57	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-05 EP-T1B	Staves and heading load and unload 1600ft	01	Paved Haul Road	N/A	N/A	N/A	0.33 VMT/Day	PM	15.00	AP 42 Chapter 13.2.1	N/A	N/A	0.19	N/A	0.82	N/A
EU-05 EP-T1B	Staves and heading load and unload 1600ft	01	Paved Haul Road	N/A	N/A	N/A	0.33 VMT/Day	PM10	3.00	AP 42 Chapter 13.2.1	N/A	N/A	0.037	N/A	0.16	N/A
EU-05 EP-T1B	Staves and heading load and unload 1600ft	01	Paved Haul Road	N/A	N/A	N/A	0.33 VMT/Day	PM2.5	0.74	AP 42 Chapter 13.2.1	N/A	N/A	9.18E-03	N/A	0.040	N/A
EU-05 EP-T2	Finished product truck round trip 1800ft	01	Paved Haul Road	N/A	N/A	N/A	2.93 VMT/Day	PM	16.01	AP 42 Chapter 13.2.1	N/A	N/A	1.79	N/A	7.85	N/A
EU-05 EP-T2	Finished product truck round trip 1800ft	01	Paved Haul Road	N/A	N/A	N/A	2.93 VMT/Day	PM10	3.20	AP 42 Chapter 13.2.1	N/A	N/A	0.36	N/A	1.57	N/A
EU-05 EP-T2	Finished product truck round trip 1800ft	01	Paved Haul Road	N/A	N/A	N/A	2.93 VMT/Day	PM2.5	0.79	AP 42 Chapter 13.2.1	N/A	N/A	0.088	N/A	0.39	N/A
EU-05 EP-T3	Empty finished-product Semis-into-Trailer-Parking	01	Paved-Haul-Road	N/A	N/A	N/A	1.32-VMT/Day	PM10	0.56	AP 42 Chapter-13.2.2	N/A	N/A	0.03	N/A	0.13	N/A
EU-05 EP-T3	Empty finished-product Semis-into-Trailer-Parking	01	Paved-Haul-Road	N/A	N/A	N/A	1.32-VMT/Day	PM2.5	0.14	AP 42 Chapter-13.2.2	N/A	N/A	0.008	N/A	0.034	N/A
EU-05 EP-T4	Kilns forklift to and from kilns 1500 ft	01	Unpaved Haul Road	N/A	N/A	N/A	1.86 VMT/Day	PM	8.96	AP 42 Chapter 13.2.2	N/A	N/A	0.47	N/A	2.05	N/A
EU-05 EP-T4	Kilns forklift to and from kilns 1500 ft	01	Unpaved Haul Road	N/A	N/A	N/A	1.86 VMT/Day	PM10	2.56	AP 42 Chapter 13.2.2	N/A	N/A	0.13	N/A	0.58	N/A
EU-05 EP-T4	Kilns forklift to and from kilns 1500 ft	01	Unpaved Haul Road	N/A	N/A	N/A	1.86 VMT/Day	PM2.5	0.26	AP 42 Chapter 13.2.2	N/A	N/A	0.013	N/A	0.058	N/A

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)
EU-05 EP-T5	Wood waste truck round trip 1300 ft	01	Paved Haul Road	N/A	N/A	N/A	1.11 VMT/Day	PM	16.01	AP 42 Chapter 13.2.1	N/A	N/A	0.68	N/A	2.98	N/A
EU-05 EP-T5	Wood waste truck round trip 1300 ft	01	Paved Haul Road	N/A	N/A	N/A	1.11 VMT/Day	PM10	3.20	AP 42 Chapter 13.2.1	N/A	N/A	0.14	N/A	0.60	N/A
EU-05 EP-T5	Wood waste truck round trip 1300 ft	01	Paved Haul Road	N/A	N/A	N/A	1.11 VMT/Day	PM2.5	0.79	AP 42 Chapter 13.2.1	N/A	N/A	0.033	N/A	0.15	N/A
EU-06 EP-T6	Semi-trailer-Wood Waste-Loaded-Out	04	Paved Haul-Road	N/A	N/A	N/A	3.12-VMT/Day	PM10	0.56	AP 42 Chapter-13.2.2	N/A	N/A	0.07	N/A	0.32	N/A
EU-06 EP-T6	Semi-trailer-Wood Waste-Loaded-Out	04	Paved Haul-Road	N/A	N/A	N/A	3.12-VMT/Day	PM2.5	0.14	AP 42 Chapter-13.2.2	N/A	N/A	0.018	N/A	0.079	N/A
EU-05 EP-T7	Ash to Dumpster load and unload 500 ft	01	Paved Haul Road	N/A	N/A	N/A	2.00E-03 VMT/Day	PM	8.78	AP 42 Chapter 13.2.1	N/A	N/A	5.65E-04	N/A	2.47E-03	N/A
EU-05 EP-T7	Ash to Dumpster load and unload 500 ft	01	Paved Haul Road	N/A	N/A	N/A	2.00E-03 VMT/Day	PM10	1.76	AP 42 Chapter 13.2.1	N/A	N/A	1.13E-04	N/A	4.95E-04	N/A
EU-05 EP-T7	Ash to Dumpster load and unload 500 ft	01	Paved Haul Road	N/A	N/A	N/A	2.00E-03 VMT/Day	PM2.5	0.43	AP 42 Chapter 13.2.1	N/A	N/A	2.77E-05	N/A	1.21E-04	N/A

Section N.2: Stack Information**UTM Zone: 17**


Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
EP-30	EU-01 EP-30	1.5	3	990.81	4,232,184.24	275,380.80	3,875	350	36.54
CD1	EP-02-EP-05, EP-08, EP-09-EP-11, EP-12, EP-13, EP-15-EP-17, EP-19, EP-21, EP-22, EP-23	4.5	40	990.81	4,232,184.24	275,380.80	60,000	AMB	62.9
CD2	EP-19	1.4	72	990.81	4,232,184.24	275,380.80	17,000	AMB	2880
CD3	EP-08		40	990.81	4,232,184.24	275,380.80	4,000	AMB	
CD4	EP-21	1	30	990.81	4,232,184.24	275,380.80	8,500	AMB	2880
EP-24	EU03 EP-24	4.81		990.81	4,232,184.24	275,380.80		200	
EP-25	EU03 EP-25	4.81		990.81	4,232,184.24	275,380.80		200	
EP-26	EU03 EP-26	4.81		990.81	4,232,184.24	275,380.80		200	
EP-27	EU03 EP-27	4.81		990.81	4,232,184.24	275,380.80		200	

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
EP-28	EU03 EP-28	4.81		990.81	4,232,184.24	275,380.80		200	

Section N.3: Fugitive Information								
UTM Zone:								
Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
T1A, T1B, T2, T3, T4, T5, T6, T7	Truck Traffic	1	10	10	4,232,184.24	275,380.80	AMB	3

Division for Air Quality 300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999	<h2 style="margin: 0;">DEP7007DD</h2> <h3 style="margin: 0;">Insignificant Activities</h3> <p style="margin: 0;">___ Section DD.1: Table of Insignificant Activities</p> <p style="margin: 0;">___ Section DD.2: Signature Block</p> <p style="margin: 0;">___ Section DD.3: Notes, Comments, and Explanations</p>
Source Name:	<u>Commonwealth Cooperage</u>
KY EIS (AFS) #	21- <u>205-00068</u>
Permit #:	<u>F-19-021 R3</u>
Agency Interest (AI) ID:	<u>161081</u>
Date:	<u>7/30/2024</u>

Section DD.1: Table of Insignificant Activities				
*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3... etc.				
Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
EU-03	Six Steam Heated Kilns (EP-01 & EP-24 - EP-28)	EU-03 (EP-01 & EP-24 - EP-28)	401 KAR 59:010 401 KAR 63:020	Annual Emissions for each Kiln: VOC: 0.12 tpy Acetaldehyde: 8.00E-04 tpy
EU-06 EP-29	Toasting Operations (EP-29)	EU-06 (EP-29)	401 KAR 59:010 401 KAR 63:020	3.84 tpy NOx , 4.22 tpy CO , 3.14 tpy PM 0.13 tpy VOC , 0.20 tpy SO2 , 3.76E-04 tpy Lead 0.30 tpy Total HAPs

Section DD.2: Signature Block	
I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.	
By:	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  <hr style="width: 100%;"/> <p style="margin: 0;">Authorized Signature</p> <hr style="width: 100%;"/> <p style="margin: 0; color: blue;">Mike Knudson</p> <hr style="width: 100%;"/> <p style="margin: 0; font-size: small;">Type/Print Name of Signatory</p> </div> <div style="text-align: center;"> <p style="color: blue; font-size: 1.2em; margin: 0;">7-30-24</p> <hr style="width: 100%;"/> <p style="margin: 0;">Date</p> <hr style="width: 100%;"/> <p style="margin: 0; color: blue;">General Manager</p> <hr style="width: 100%;"/> <p style="margin: 0; font-size: small;">Title of Signatory</p> </div> </div>

APPENDIX B. SITE-WIDE POTENTIAL TO EMIT CALCULATIONS

Appendix 2. Facility Wide Potential to Emit Summary - Permit Renewal Application

Table 2-1. Facility Wide Potential to Emit Summary^{2,5}

EU ID	EP ID	Title V Emission Group	Emission Unit Description	KyEIS Process ID	Units Description	Maximum Design Capacity (Units/hr)	Control Efficiency	Emission Factors								Controlled Emissions ¹									
								PM (lb/Units)	PM ₁₀ (lb/Units)	PM _{2.5} (lb/Units)	NO _x (lb/Units)	CO (lb/Units)	VOC (lb/Units)	SO _x (lb/Units)	HAPS (lb/Units)	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	NO _x (tpy)	CO (tpy)	VOC (tpy)	SO _x (tpy)	HAPS (tpy)		
01	20	Two Wood-Fired Indirect Heat Exchangers	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Tons Wood Burned	0.55 tons/hr	PM, PM10, PM2.5 - 85%	EF - PM	6.76	6.09	5.24	8.28	10.14	0.29	0.42	0.64	EF - PM	2.44	2.20	1.89	19.96	24.44	0.69	1.02	1.54
01	30	Two Wood-Fired Indirect Heat Exchangers	9.229 MMBtu/hr Wood Refuse Heat Exchanger	01	Tons Wood Burned	0.55 tons/hr	PM, PM10, PM2.5 - 85%	EF - PM	6.76	6.09	5.24	8.28	10.14	0.287	0.42	0.64	EF - PM	2.44	2.20	1.89	19.96	24.44	0.69	1.02	1.54
02	06	Barrel (and Head) Charring Operations	2.0 MMBtu/hr Dry Fired Operations	01	MMscf Natural Gas	0.002 MMscf/hr	None	7.60	7.60	7.60	100	84.00	5.50	0.60	3.69	0.067	0.067	0.067	0.88	0.74	0.048	5.26E-03	0.032		
02	07	Barrel (and Head) Charring Operations	Barrel Charring Operations	01	Tons Wood Burned	0.57 tons/hr ³	None	6.76	6.09	5.24	8.28	0.34	0.29	0.42	0.64	16.87	15.19	13.08	20.67	20.27	0.72	1.05	0.56		
02	07	Barrel (and Head) Charring Operations	5.13 MMBtu/hr Barrel Char Natural Gas Burners	02	MMscf Natural Gas	0.005 MMscf/hr	None	7.60	7.60	7.60	100	--	5.50	0.60	0.08	0.17	0.17	0.17	2.20	--	0.12	0.013	1.65E-03		
02	14	Barrel (and Head) Charring Operations	Head Charring Operations	01	Tons Wood Burned	0.44 tons/hr ⁴	None	6.76	6.09	5.24	8.28	0.34	0.29	0.42	0.64	13.16	11.84	10.20	16.12	4.95	0.56	0.82	0.56		
02	14	Barrel (and Head) Charring Operations	1.25 MMBtu/hr Head Char Natural Gas Burners	02	MMscf Natural Gas	0.001 MMscf/hr	None	7.60	7.60	7.60	100	--	5.50	0.60	0.08	0.041	0.041	0.041	0.537	--	0.030	3.22E-03	4.03E-04		
03 (IA1)	01	Steam Heated Kilns	Steam Heated Kiln	01	Tons Wood Processed	1.11 tons/hr	None	--	--	--	--	--	0.116	--	1.64E-04	--	--	--	--	--	0.568	--	8.00E-04		
03 (IA1)	24	Steam Heated Kilns	Steam Heated Kiln	01	Tons Wood Processed	1.11 tons/hr	None	--	--	--	--	--	0.116	--	1.64E-04	--	--	--	--	--	0.568	--	8.00E-04		
03 (IA1)	25	Steam Heated Kilns	Steam Heated Kiln	01	Tons Wood Processed	1.11 tons/hr	None	--	--	--	--	--	0.116	--	1.64E-04	--	--	--	--	--	0.568	--	8.00E-04		
03 (IA1)	26	Steam Heated Kilns	Steam Heated Kiln	01	Tons Wood Processed	1.11 tons/hr	None	--	--	--	--	--	0.116	--	1.64E-04	--	--	--	--	--	0.568	--	8.00E-04		
03 (IA1)	27	Steam Heated Kilns	Steam Heated Kiln	01	Tons Wood Processed	1.11 tons/hr	None	--	--	--	--	--	0.116	--	1.64E-04	--	--	--	--	--	0.568	--	8.00E-04		
03 (IA1)	28	Steam Heated Kilns	Steam Heated Kiln	01	Tons Wood Processed	1.11 tons/hr	None	--	--	--	--	--	0.116	--	1.64E-04	--	--	--	--	--	0.568	--	8.00E-04		
04	02	Non-fugitive Wood Operations	Slave Equalizer	01	Tons Wood Processed	19.35 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	3.64	1.78	3.29	--	--	--	--	--		
04	03	Non-fugitive Wood Operations	Slave Planer	01	Tons Wood Processed	18.86 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	3.55	1.73	3.21	--	--	--	--	--		
04	04	Non-fugitive Wood Operations	G5 Machines	01	Tons Wood Processed	16.84 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	3.17	1.55	2.87	--	--	--	--	--		
04	05	Non-fugitive Wood Operations	Rip Saw & Cutoff Saw	01	Tons Wood Processed	0.90 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.17	0.083	0.15	--	--	--	--	--		
04	08	Non-fugitive Wood Operations	Crozer	01	Tons Wood Processed	11.76 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	2.21	1.08	2.00	--	--	--	--	--		
04	09	Non-fugitive Wood Operations	Heading Planer	01	Tons Wood Processed	3.67 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.69	0.34	0.62	--	--	--	--	--		
04	10	Non-fugitive Wood Operations	Heading Jointers	01	Tons Wood Processed	3.38 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.64	0.31	0.58	--	--	--	--	--		
04	11	Non-fugitive Wood Operations	Rip Saws & Jointers	01	Tons Wood Processed	0.76 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.14	0.070	0.13	--	--	--	--	--		
04	13	Non-fugitive Wood Operations	Rounder	01	Tons Wood Processed	2.90 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.55	0.27	0.49	--	--	--	--	--		
04	15	Non-fugitive Wood Operations	Head Repair - Joints, T&G, & Planer	01	Tons Wood Processed	0.42 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.079	0.039	0.071	--	--	--	--	--		
04	16	Non-fugitive Wood Operations	Bung Bore	01	Tons Wood Processed	14.36 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	2.70	1.32	2.44	--	--	--	--	--		
04	17	Non-fugitive Wood Operations	Copy Saw	01	Tons Wood Processed	0.20 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.038	0.018	0.034	--	--	--	--	--		
04	19	Non-fugitive Wood Operations	Wood Waste Silo	01	Tons Wood Processed	4.70 tons/hr	PM, PM10 - 99% PM2.5 = 95%	2.00	1.00	0.37	--	--	--	--	--	0.41	0.21	0.38	--	--	--	--	--		
04	21	Non-fugitive Wood Operations	Wood Waste Truck Loadout	01	Tons Wood Processed	4.33 tons/hr	PM, PM10 - 99% PM2.5 = 95%	2.00	1.00	0.37	--	--	--	--	--	0.38	0.19	0.35	--	--	--	--	--		
04	22	Non-fugitive Wood Operations	Weima Grinder	01	Tons Wood Processed	1.04 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.20	0.10	0.18	--	--	--	--	--		
04	23	Non-fugitive Wood Operations	Weima Grinder	01	Tons Wood Processed	1.15 tons/hr	PM, PM10 - 99% PM2.5 = 95%	4.30	2.10	0.78	--	--	--	--	--	0.22	0.11	0.20	--	--	--	--	--		

Table 2-1. Facility Wide Potential to Emit Summary^{2,5}

EU ID	EP ID	Title V Emission Group	Emission Unit Description	KyEIS Process ID	Units Description	Maximum Design Capacity (Units/hr)	Control Efficiency	Emission Factors								Controlled Emissions ¹										
								PM (lb/Units)	PM ₁₀ (lb/Units)	PM _{2.5} (lb/Units)	NO _x (lb/Units)	CO (lb/Units)	VOC (lb/Units)	SO _x (lb/Units)	HAPS (lb/Units)	PM (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	NO _x (tpy)	CO (tpy)	VOC (tpy)	SO _x (tpy)	HAPS (tpy)			
05	T1A	Fugitive Emissions - Paved Haul Roads	Dried material truck load and unload 1600ft	01	VMT	4.70 VMT/Day	8.22%	14.85	2.97	0.73	--	--	--	--	--	--	11.70	2.34	0.57	--	--	--	--	--	--	--
05	T1B	Fugitive Emissions - Paved Haul Roads	Staves and heading load and unload 1600ft	01	VMT	0.33 VMT/Day	8.22%	15.00	3.00	0.74	--	--	--	--	--	--	0.82	0.16	0.040	--	--	--	--	--	--	--
05	T2	Fugitive Emissions - Paved Haul Roads	Finished product truck round trip 1800ft	01	VMT	2.93 VMT/Day	8.22%	16.01	3.20	0.79	--	--	--	--	--	--	7.85	1.57	0.39	--	--	--	--	--	--	--
05	T4	Fugitive Emissions - Paved Haul Roads	Kilns forklift to and from kilns 1500 ft	01	VMT	1.86 VMT/Day	32.88%	8.96	2.56	0.26	--	--	--	--	--	--	2.05	0.58	0.058	--	--	--	--	--	--	--
05	T5	Fugitive Emissions - Paved Haul Roads	Wood waste truck round trip 1300 ft	01	VMT	1.11 VMT/Day	8.22%	16.01	3.20	0.79	--	--	--	--	--	--	2.98	0.60	0.15	--	--	--	--	--	--	--
05	T7	Fugitive Emissions - Paved Haul Roads	Ash to Dumpster load and unload 500 ft	01	VMT	2.00E-03 VMT/Day	8.22%	8.78	1.76	0.43	--	--	--	--	--	--	2.47E-03	4.95E-04	1.21E-04	--	--	--	--	--	--	--
06 (IA2)	29	Toasting Operations	Electric Burners (72)	01	Tons Wood Burned	0.11 tons/hr	None	6.76	6.09	5.24	8.28	0.34	0.29	0.42	0.640	3.14	2.82	2.43	3.94	0.16	0.13	0.20	0.30	--	--	--
Total Potential Emissions - Post-Permit Actions								--	--	--	--	--	--	--	--	82.5	49.0	48.0	84.3	75.0	6.4	4.1	4.5			
Total Non-Fugitive Emissions - Post-Permit Actions								--	--	--	--	--	--	--	--	57.1	43.7	46.8	84.3	75.0	6.4	4.1	4.5			

¹ SO_x is representative of SO₂ emissions, these terms are used synonymously throughout this application.
² Changes reflected from the original permit application to this renewal permit application are represented in light green highlight and bold maroon font in the table above.
³ CO throughput is based on a 13.706 ton/hour total wood barrel throughput as the emission factor basis is based on 9/19/2023 head charring test results.
⁴ CO throughput is based on a 3.35 ton/hour total wood head throughput as the emission factor basis is based on 9/19/2023 head charring test results.
⁵ Emission Points EP-12, T3 and T6 have been removed since the original permit application and are not shown in this summary.