



Louisville Metro Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137



## Title V Operating Permit

Permit No.: O-0026-17-V

Plant ID: 0026

Effective Date: 12/13/2017

Expiration Date: 12/31/2022

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Owner: Brown-Forman Corporation  
Source: Brown-Forman Cooperage  
402 MacLean Ave  
Louisville, KY 40209

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than six (6) months prior to the expiration date.

Application No.: See Table

Application Received: See Table

Permit Writer: Shannon Hosey

Administratively Complete: 01/09/2017

Date of Public Notice: 10/26/2017

Date of Proposed Permit: 10/26/2017

A handwritten signature in blue ink, appearing to read "Paul S. A." with a stylized flourish at the end.

Air Pollution Control Officer  
December 13, 2017

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**Title V Permit Revisions/Changes**

<b>Revision No.</b>	<b>Permit No.</b>	<b>Issue Date</b>	<b>Public Notice Date</b>	<b>Change Type</b>	<b>Change Scope</b>	<b>Description</b>
N/A	135-97-TV	01/22/2001	10/22/2000	Initial	Entire Permit	Initial Permit Issuance
R1	135-97-TV (R1)	04/16/2012	02/26/2012	Renewal	Entire Permit	5 year renewal and incorporating construction permits # 180-04-C, 181-04-C, 335-05-C, 363-07-C, 363-07-C (R1), 364-07-C (R1), 573-08-C, 118-09-C, 202-09-C, 123-10-C and 32864-11-C
R2	135-97-TV (R2)	04/27/2012	02/26/12	Admin Change	Cover Page	Correct dates
R3	135-97-TV (R3)	10/09/2015	N/A	Admin Change	Entire Permit	Incorporating construction permit # C-0026-1000 (R1)
R4	135-97-TV (R4)	02/17/2016	N/A	Admin Change	Entire Permit	Incorporating construction permit #C-0026-1000-16-V (R2)
N/A	O-0026-17-V	12/13/2017	10/26/2017	Renewal	Entire Permit	Renewal

**Construction Permit History since Last Title V Permit Renewal**

<b>Permit No.</b>	<b>Effective Date</b>	<b>Description</b>
C-0026-1000	09/24/2014	Modifying the dust handling system by redistributing the load to the five existing baghouses.
C-0026-1000 (R1)	09/24/2014	Corrected the general reporting requirements.
C-0026-1000-16-V (R2)	11/28/2016	Correcting the capacity of the process cyclones listed in Permit No.: C-0026-1000 (R1) which modified the dust handling system by redistributing the load to the five existing baghouses in EU U2, Barrel and Head Production and Finishing Operations.

**Application Documents**

<b>Document Number</b>	<b>Date Received</b>	<b>Description</b>
83619	4/13/2017	Certificate of Authorization
80725	12/05/2016	Title V renewal application
78774	8/01/2016	Compliance Assurance Monitoring Plan (CAM) Revision
77688	06/08/2016	AP-100A to correct capacities of process cyclones
66606	08/20/2014	AP-100A to modify the dust handling system
36797	03/22/2012	EA Demo for changes made to BAC
4828	10/14/2009	Compliance Assurance Monitoring Plan (CAM)
29932	08/05/2009	Barrel char STAR analysis
51092	01/03/2007	Category 1 TAC EA Demo
75659	06/19/2003	BACT analysis for barrel toasting

### Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors</i> , published by U.S.EPA
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
NAICS	- North American Industry Classification System
NO <sub>x</sub>	- Nitrogen oxides
PM	- Particulate Matter
PM <sub>10</sub>	- Particulate Matter less than 10 microns
PM <sub>2.5</sub>	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO <sub>2</sub>	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

### Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16 section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

### General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. [Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7]
2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

*US EPA - Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960*

*Air Pollution Control District  
701 W. Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137*

This certification must be postmarked by 15 April of the year following the year for which the certification is being submitted, or other such due date as required by another applicable regulation.

3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:
  - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.
  - b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.
4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall,



upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

- a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations if the conditions in Regulation 2.16 are met. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - i. An emergency occurred and that the owner or operator can identify the cause of the emergency;
  - ii. The permitted facility was at the time being properly operated;
  - iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and
  - iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 12.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 12.2.4]

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as District-Only Enforceable Conditions, all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]

9. **Enforcement Action Defense**

- a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the

permitted activity in order to maintain compliance with the conditions of this permit.

- b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. [Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]
10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.
  11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. [Regulation 2.16, section 4.1.13.6]  
  
If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b. [Regulation 2.07, section 10.2]
  12. **Insignificant Activities** - The owner or operator shall:
    - a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, section 5]
    - b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. [Regulation 2.16, section 4.3.5.3.6]
  13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours: [Regulation 2.16, section 4.3.2]
    - a. Enter the premises to inspect any emissions-related activity or records required in this permit.
    - b. Have access to and copy records required by this permit.
    - c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.
    - d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.
  14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months,

unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year. All reports shall be sent to the District at the address shown in paragraph 2 of these General Conditions and must be postmarked by the 60<sup>th</sup> day following the end of each reporting period, unless specified elsewhere in this permit. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5. [Regulation 2.16, section 4.1.5]
16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.
17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.
18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.
19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.
20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16,

- sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.
21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]
  22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.
  23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.
  24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:
    - a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;
    - b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;
    - c. Knowingly making any false statement in any permit application;
    - d. Noncompliance with Regulation 1.07, section 4.2; or
    - e. Noncompliance with KRS Chapter 77.
  25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.
  26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.
  27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.
  28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.
  29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.
  30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.
  31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

- 32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. [Regulation 2.16, section 4.1.12]
- 33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.
- 34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.
- 35. **Submittal of Reports, Data, Notifications, and Applications**
  - a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:
 

***Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137***
  - b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16 sections 3.3 and 5.8.5 shall be mailed to EPA at:
 

***US EPA - Region IV  
APTMD - 12th floor  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-3104***
- 36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

<b>Regulation</b>	<b>Title</b>
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions

Regulation	Title
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

**District Only Enforceable Regulations:**

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.00	Definitions
5.01	General Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

- a. Any facility having any refrigeration equipment that normally contains fifty (50) pounds of refrigerant or more must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;
- b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
- d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;
- g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. [Regulation 2.16, section 4.1.5]

## Plantwide Requirements

### Facility Description

Brown-Forman Cooperages production of white oak barrels involves the following: Wood Drying, Barrel stave operations, Head stave operations, Char operations, Steam Generation, and Barrel coating and sealing operations.

### Plantwide Applicable Regulations

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.16	Title V Operating Permits	1 through 6

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	1, 3.95 and 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6



### Plantwide Specific Conditions

#### S1. **Standards** (Regulation 2.16 Section 4.1.1)

##### a. **NO<sub>x</sub>**

- i. The owner or operator shall not allow the plantwide total emissions of NO<sub>x</sub> emissions to equal or exceed 100 tons per 12 consecutive month period.<sup>1</sup> (Regulation 6.42)

##### b. **TAC**

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. (Regulations 5.00 and 5.21) (See Comment 1)
- ii. When submitting an application for construction of any new or modified process/process equipment, the owner or operator shall also submit a STAR EA Demonstration for all Category 1 through Category 4 TACs emitted. (Regulation 5.21, section 4.22.1)
- iii. For any conditions outside the environmental acceptability analysis, including if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*, the owner or operator shall verify and document the environmental acceptability of the revised emissions, at the time of the change. This includes, but is not limited to, control device upset conditions. Prior approval by the District is not required for a change pursuant to Regulation 5.21 section 4.22.3 if the requirements of 4.23.1 through 4.23.4 are met. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze.
- iv. If the TAC does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values. (Regulation 5.20, sections 3 and 4)

#### S2. **Monitoring and Record Keeping** (Regulation 2.16 Section 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

##### a. **NO<sub>x</sub>**

- i. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total plantwide NO<sub>x</sub> emissions. (See Appendix B for Calculation Methodology.)

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<sup>1</sup> The District has determined that the source has the potential to exceed 100 tons per year of NO<sub>x</sub> and therefore, the company has requested to include a plantwide limit to avoid NO<sub>x</sub> RACT.

b. **TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS/SDS, analysis of emissions, and/or modeling results.
- ii. If there is a change in a process or process equipment, including a new TAC being emitted or the content of a TAC in a raw material increases above *de minimis*, the owner or operator shall verify and document the environmental acceptability of the revised emissions, at the time of the change

S3. **Reporting** (Regulation 2.16 Section 4.1.9.3)

The owner or operator shall report the following information, as required by General Condition 14:

a. **NO<sub>x</sub>**

The calendar month and consecutive 12-month total plantwide NO<sub>x</sub> emissions for each month in the reporting period.

b. **TAC**

- i. Any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration. This includes, but is not limited to, control device upset conditions.
- ii. If there is a change in a process or process equipment, including a new TAC being emitted or the content of a TAC in a raw material increases above *de minimis*, the re-evaluated EA demonstration shall be submitted to the District within 6 months after the change.

### Comments for Plantwide Requirements

1. Based on Tier 3 modeling (SCREEN3) using uncontrolled potential emissions, the carcinogenic risk for each TAC is below 1.0 on non-industrial property and below 10.0 on industrial property. The carcinogenic risk for all TACs for all processes is below 7.5 on non-industrial property and below 75.0 on industrial property. The following table represents the Risk or R<sub>c</sub> based on the maximum off-site concentration predicted from the Tier 3 modeling (SCREEN3) runs. Since the maximum off-site risk meets the more stringent non-industrial R<sub>c</sub> of less than 7.5 for the plantwide cumulative risk, the source has demonstrate compliance with the EA Goals for each TAC.

**Table 1: Plantwide Risk**

<b>Plantwide Sum</b>	<b>All Existing and New Processes</b>		<b>All New Processes</b>	
Industrial Total R <sub>c</sub>	4.53	< 75	0	< 38
Non-Ind. Total R <sub>c</sub>	4.53	< 7.5	0.04	< 3.8
Industrial Max. R <sub>NC</sub>	0.803	< 3.0		
Non-Ind. Max. R <sub>NC</sub>	0.803	< 1.0		

**Table 2: Tier 3 Modeling Results**

EU	TAC	Risk ( $EAG_C$ )		HQ ( $EAG_{NC}$ )	
		Unadjusted Process	Industrial Process	Unadjusted Process	Industrial Process
		$EAG_C \leq 1.0$	$EAG_C \leq 10.0$	$EAG_{NC} \leq 1.0$	$EAG_{NC} \leq 3.0$
U3, Barrel Char E8 (uncontrolled)	Arsenic	0.60	0.60	0.0046	0.0046
	Benzene	0.20	0.20	0.0009	0.0009
	Chromium VI	0.27	0.27	0.0028	0.0028
	Formaldehyde	0.36	0.36	0.0091	0.0091
	Manganese	--	--	0.20	0.20
	1,2-Dibromoethane	0.04	0.04	0.0003	0.0003
	Acrolein	--	--	0.301	0.301
U3, Head Char E9 (uncontrolled)	Arsenic	0.597	0.597	0.0046	0.0046
U5, Boiler E12 (uncontrolled)	Arsenic	0.869	0.869	0.0067	0.0067
	Formaldehyde	0.605	0.605	0.016	0.016
	Benzene	0.342	0.342	0.0015	0.0015
	Chromium VI	0.458	0.458	0.0048	0.0048
	Cadmium	0.079	0.079	0.0022	0.0022
	Nickel	0.105	0.105	0.008	0.008
U4, Glue Operation, E10 and E11	Diethylene glycol monobutyl ether	--	--	0.25	--
<b>Plantwide <math>R_C</math>: for new processes:</b>		<b>0.04 (<math>\leq 3.8</math>)</b>	<b>0.04 (<math>\leq 38.0</math>)</b>		
<b>Plantwide <math>R_C</math>: for all processes:</b>		<b>4.53 (<math>\leq 7.5</math>)</b>	<b>4.53 (<math>\leq 75.0</math>)</b>		

**Emission Unit U2: Barrel and Head Production and Finishing Operations****U2 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.05	Prevention of Significant Deterioration of Air Quality	1 and 2
7.08	Standards of Performance for New Process Operations	1, 2, 3.1, 3.2 and 3.3
40 CFR 64	Compliance Assurance Monitoring	64.1 through 64.10

**U2 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E1	<p>Conveyance from Woodworking 1 equipment consisting of:</p> <ul style="list-style-type: none"> <li>• #2 Head Line Planer,</li> <li>• Narrow Head Line Planer,</li> <li>• Narrow Head Line Edger,</li> <li>• Rounder and Scrap Grinder,</li> <li>• Finish Head Planer,</li> <li>• Stave Jointers (for 3-1 through 3-2 Stave Lines),</li> <li>• Heading Jointer (for 2-1 through 2-3 Stave Lines),</li> <li>• Head Rounder #1,</li> <li>• and Head Rip Saw</li> </ul> <p>to process cyclone #1 with capacity 6726 tons/yr and a removal efficiency of 86%</p>	40 CFR 64, 2.05, 7.08	B1
E2	<p>Conveyance from Woodworking 2 equipment consisting of:</p> <ul style="list-style-type: none"> <li>• #1 &amp; #2 Stave Line Equalizer,</li> <li>• Stave Rip Saw, and</li> <li>• #1 &amp; #2 Stave Line Planer and Jointer (for 1-1 through 1-5 &amp; 2-3 through 2-5 Stave Lines)</li> </ul> <p>to process cyclone #2 with capacity 11,476 tons/yr and a removal efficiency of 94.0%</p>	40 CFR 64, 2.05, 7.08	B2
E3	<p>Conveyance from Woodworking 3 equipment consisting of:</p> <ul style="list-style-type: none"> <li>• #3 Stave Line Planer,</li> <li>• #3 Stave Line Equalizer,</li> <li>• Head Rounder #2,</li> <li>• Head Jointer (for 1-1 through 1-3 Stave Lines),</li> <li>• Jointer (for 2-1 through 2-2 and 3-3 through 3-5 Stave Lines), and</li> <li>• Head Line Planer #1</li> </ul> <p>to process cyclone #3 with capacity 8976 tons/yr and a removal efficiency of 88.6%</p>	40 CFR 64, 2.05, 7.08	B3

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E4	Conveyance from Woodworking 4 equipment consisting of: <ul style="list-style-type: none"> <li>• Wood Hog for Equalizer,</li> <li>• Head Line Wood Hog for Rounders, and</li> <li>• Truck Load-out</li> </ul> to process cyclone #4 with capacity 4404 ton/yr and a removal efficiency of 99.3%	40 CFR 64, 2.05, 7.08	B4
E5	Conveyance from Woodworking 5 equipment consisting of: <ul style="list-style-type: none"> <li>• South Wood Hog and</li> <li>• West Wood Hog</li> </ul> to process cyclone #5 with capacity 2459 tons/yr and a removal efficiency of 97.4%	40 CFR 64, 2.05, 7.08	B5

### U1 Control Devices

<b>Control ID</b>	<b>Description</b>	<b>Control Efficiency<sup>2</sup></b>	<b>Stack ID</b>
B1	One (1) Donaldson Torit pulse-jet baghouse, model number 276RFW10 to control E1	99.9% <sup>3</sup>	S1
B2	One (1) Carter Day baghouse to control E2	98.3% <sup>3</sup>	S2
B3	One (1) Donaldson Torit pulse-jet baghouse, model number 276RFW10 to control E3	99.5% <sup>4</sup>	S3
B4	One (1) Carter Day baghouse to control E4	99.9% <sup>4</sup>	S4
B5	One (1) Carter Day baghouse to control E5	99.2% <sup>3</sup>	S5

<sup>2</sup> See Appendix B for Default Emission Factors, Calculation Methodologies, Stack Test and Control Efficiencies. Efficiencies have been verified through previous stack testing.

<sup>3</sup> A Stack Test was performed on B1, B2 and B5 in September 2006.

<sup>4</sup> A Stack Test was performed on B3 and B4 in November 2007.

**U2 Specific Conditions****S1. Standards** (Regulation 2.16, section 4.1.1)**a. Opacity**

- i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

**b. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. The owner or operator shall not allow PM emissions to exceed 3.05 lb/hr for Emission Point E1 based on actual operating hours in a calendar day.<sup>5</sup> (Regulation 7.08, section 3.1.2)
- ii. The owner or operator shall not allow PM emissions to exceed 4.24 lb/hr for Emission Point E2 based on actual operating hours in a calendar day.<sup>5</sup> (Regulation 7.08, section 3.1.2)
- iii. The owner or operator shall not allow PM emissions to exceed 3.64 lb/hr for Emission Point E3 based on actual operating hours in a calendar day.<sup>5</sup> (Regulation 7.08, section 3.1.2)
- iv. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr for Emission Point E4 based on actual operating hours in a calendar day.<sup>5</sup> (Regulation 7.08, section 3.1.2)
- v. The owner or operator shall not allow PM emissions to exceed 2.34 lb/hr for Emission Point E5 based on actual operating hours in a calendar day.<sup>5</sup> (Regulation 7.08, section 3.1.2)
- vi. The owner or operator shall not allow the total PM emissions to equal or exceed 25 tons per 12 consecutive month period for combined Emission Points E1, E2, E3, E4, and E5. (Regulation 2.05)
- vii. The owner or operator shall not allow the total PM<sub>10</sub> emissions to equal or exceed 15 tons per 12 consecutive month period for combined Emission Points E1, E2, E3, E4, and E5. (Regulation 2.05)
- viii. The owner or operator shall not allow the total PM<sub>2.5</sub> emissions to equal or exceed 10 tons per 12 consecutive month period for combined Emission Points E1, E2, E3, E4, and E5. (Regulation 2.05)
- ix. The owner or operator shall operate and maintain the associated control devices at all times that the process equipment E1, E2, E3, E4, and E5 are in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards.

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<sup>5</sup> The potential controlled PM emission rates are 0.21 lb/hr for process cyclone E1, 2.65 lb/hr for process cyclone E2, 1.16 lb/hr for process cyclone E3, 0.01 lb/hr for process cyclone E4, and 0.12 lb/hr for process cyclone E5. These values are all below the standards; therefore, there are no monitoring, record keeping, or reporting requirements except for the control devices.

**S2. Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

**a. Opacity**

- i. The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure. (40 CFR 64.6(c)(1)(i))
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
- iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record. (40 CFR 64.9(b)(1))

**b. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. For Emission Points E1, E2, E3, E4 and E5, the owner or operator shall comply with the most recent Compliance Assurance Monitoring (CAM) Plan. See Appendix A.<sup>6</sup> (40 CFR 64.6(c))
- ii. The owner or operator shall, monthly, maintain records, including calculations, which show the total PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions during each consecutive 12-month period for Emission Points E1, E2, E3, E4, and E5.
- iii. The owner or operator shall clearly record and identify all periods of excursions of the pressure drops, including the emission point designation, monitored value, duration of excursion, reason for excursion, and any corrective action taken. (40 CFR 64.6(c)(1)(i) and 64.9(b)(1))
- iv. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of the baghouses for signs of damage, air leakage, corrosion, etc. and repair as needed. (40 CFR 64.6(c)(1)(i))

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<sup>6</sup> The CAM Plan was submitted on August 1, 2016.

- v. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. (40 CFR 64.7(b))
- vi. The owner or operator shall maintain records, daily, of the following:
  - 1) Any periods of time where the process was operating and the baghouses were not operating;
  - 2) A declaration that the control devices operated at all times that day when the process was operating.
  - 3) Identify all periods of exceedance of the pound per hour PM emission standards, during bypasses, including the emission point designation, quantity of the exceedance, duration of exceedance, reason for exceedance, and any corrective action taken.

**S3. Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

a. **Opacity** (40 CFR 64.9(a)(2))

- i. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed;
- ii. The date, time and results of each Method 9 conducted; and
- iii. Description of any corrective action taken.

b. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. The total 12 consecutive month PM, PM<sub>10</sub> and PM<sub>2.5</sub> emissions for each month in the reporting period for Emission Points E1, E2, E3, E4, and E5.
- ii. Identification of all periods of control devices bypassing or downtime and emissions from each bypass or downtime;
- iii. Identification of the operating parameter being monitored and the number, duration, and cause of all excursions; and description of any corrective action taken for each excursion. (40 CFR 64.9(a)(2))

**S4. Testing** (Regulation 2.16, section 4.3.1)

- i. Within 180 days from the effective date of the permit, the owner or operator shall perform an EPA Reference Method 5 performance test within +/- 10% of maximum production on the outlet and inlet of a representative Donaldson Torit baghouse and a representative Carter Day baghouse and their appropriate cyclone to determine the emission rates and control efficiencies.



- ii. The owner or operator shall submit a written testing protocol that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
- iii. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.
- iv. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

**Emission Unit U3: Barrel and Head Charring Operations****U3 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.09	Standards of Performance for Existing Process Operations	1, 2, 3 and 5

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	3.1, 3.16
5.14	Hazardous Air Pollutants and Source Categories	1 and 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

**U3 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E8	Barrel Charring Operation	1958	STAR, 6.09, 6.42	C6
E9	Head Charring Operation	1955		N/A
STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.				

**U3 Control Devices**

<b>ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
C6	Venturi Wet Scrubber in series with Wet Electrostatic Precipitator	N/A	S-7

### U3 Specific Conditions

#### S1. **Standards** (Regulation 2.16, section 4.1.1)

##### a. **NO<sub>x</sub>**

- i. The owner or operator shall not allow NO<sub>x</sub> emissions to exceed 300 ppm by volume expressed as NO<sub>2</sub>.<sup>7</sup> (Regulation 6.09, section 4.1.)
- ii. See Plantwide Specific Conditions.

##### b. **Opacity**

- i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity (Regulations 6.09, section 3.1)

##### c. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. The owner or operator shall not allow PM emissions to exceed 3.13 lb/hr for the Barrel Charring Operations based on actual operating hours in a calendar day.<sup>8,9</sup> (Regulation 6.09, section 3.2)
- ii. The owner or operator shall not allow PM emissions to exceed 2.58 lb/hr for the Head Char/Toasting Operations based on actual operating hours in a calendar day.<sup>9</sup> (Regulation 6.09, section 3.2)

##### d. **TAC**

- i. See Plantwide Specific Conditions.<sup>10</sup>

#### S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

##### a. **NO<sub>x</sub>**

- i. See Plantwide Specific Conditions.

##### b. **Opacity**

- i. The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

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<sup>7</sup> The potential uncontrolled NO<sub>x</sub> emission rate was calculated to be 4.17 ppm, which is less than the standard. Therefore, there are no monitoring, record keeping or reporting requirements for this standard.

<sup>8</sup> A stack test was performed on January 11, 2011 to determine emissions of filterable particulate matter from the exhaust of the wet electrostatic precipitator.

<sup>9</sup> The potential uncontrolled PM emission rate is less than the standard in Regulation 6.09.

<sup>10</sup> All of the TACs from this Emission Unit are Environmentally Acceptable at uncontrolled potential.

- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
  - iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.
- c. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
- i. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of the control devices for signs of damage, air leakage, corrosion, etc. and repair as needed.
  - ii. The owner or operator shall keep records, monthly, of the visual inspection of the structural and mechanical integrity of the control devices.
- d. **TAC**
- i. See Plantwide Specific Conditions.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

- a. **NO<sub>x</sub>**
- i. See Plantwide Specific Conditions.
- b. **Opacity**
- i. Emission Unit ID number and Stack ID number;
  - ii. The beginning and ending date of the reporting period;
  - iii. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed;
  - iv. The date, time and results of each Method 9 conducted; and
  - v. Description of any corrective action taken.
- c. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
- i. There are no compliance reporting requirements for the equipment.

- d. **TAC**
  - i. See Plantwide Specific Conditions.

**Emission Unit U4: Glue Application and Operations**

**U4 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.24	Standards of Performance for Existing VOC	1 through 6

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.14	Hazardous Air Pollutants and Source Categories	1 and 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

**U4 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>
E10	Wood Glue Operations (Clamp Carrier)	1980	STAR, 6.24	N/A	S20
E11	Glue Applicator				S21
STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.					

**U4 Control Devices**

There are no control devices associated with Emission Unit U4.

**U4 Specific Conditions****S1. Standards** (Regulation 2.16, section 4.1.1)**a. TAC**

- i. See Plantwide Specific Conditions.

**b. VOC**

- i. No owner or operator shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day or more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent or any material containing such solvent is employed or applied. (Regulation 6.24, section 3.3)

**S2. Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. TAC**

- i. See Plantwide Specific Conditions.

**b. VOC**

The owner or operator shall maintain records, monthly, of the following:

- i. The quantity of glue used or applied;
- ii. The type and the amount of each VOC containing material based on the weight % of each VOC;
- iii. The number of operating hours for each operating day; and
- iv. The hourly and daily VOC emissions for Class III solvents subject to Regulation 6.24.

**S3. Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

**a. TAC**

- i. See Plantwide Specific Conditions.

**b. VOC**

- i. Emission Unit ID number and Stack ID number;
- ii. Identification of all periods of exceedances of the hourly and daily VOC emission limit including the quantity of excess emissions; The date, time and results of each Method 9 conducted;

- iii. Reason for excess emissions whether process upset, control device malfunction, other know causes; or unknown causes; and
- iv. Description of any corrective action taken.



**Emission Unit U5: Steam Generation System**

**U5 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.07	Standard of Performance for Existing Indirect Heat Exchangers	1 through 4
6.09	Standards of Performance for Existing Process Operations	1,2,3 and 5
7.02	Adoption of Federal New Source Performance Standards	1 through 5
7.06	Standards of Performance of New Indirect Heat Exchangers	1 through 7
7.08	Standards of Performance for New Process Operations	1,2,3 and 5
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	60.40c, 60.41c, and 60.48c(a)
40 CFR 63 Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	63.11201(b), 63.11205(a) 63.11214(c), 63.11225(b) and 63.11225(6)(c)
40 CFR 64	Compliance Assurance Monitoring for Major Stationary Sources	64.1 through 64.10

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.02	Adoption of National Emission Standards for Hazardous Air Pollutants	1, 3.95 and 4
5.14	Hazardous Air Pollutants and Source Categories	1, 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

**U5 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E12	One (1) Wood-Fired Boiler rated at 42 MMBtu/hr, installed in 1967	STAR, 40 CFR 64, 6.07, 40 CFR 63 Subpart JJJJJ	C11
E13	Sawdust Storage Tank, Screw Conveyor, Cyclone	6.09	C13
E14	One (1) Natural Gas Boiler rated at 27 MMBtu/hr, installed in 1999	STAR <sup>11</sup> , 6.42, 7.06, 40 CFR 60 Subpart Dc	N/A
E21	Boiler feed hammermill rated at 6000 lb/hr	7.08	C13
E22	Screw Conveyor rated at 6000 lb/hr	7.08	N/A
E23	Weigh Conveyor rated at 6000 lb/hr	7.08	N/A
STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

**U5 Control Devices**

<b>ID</b>	<b>Description</b>	<b>Performance Indicator</b>	<b>Range</b>	<b>Control Efficiency</b>	<b>Stack ID</b>
C11	One (1) Wet Scrubber	Pressure Drop	2" - 6" H <sub>2</sub> O	98% <sup>12</sup>	S-12
C13	One (1) pulse-jet baghouse, installed 2007		1" - 6" H <sub>2</sub> O	95%	S-6

<sup>11</sup> The TAC emissions from the combustion of natural gas are considered to be “*de minimis* emissions” by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas. (Regulation 5.01, section 1.6.7)

<sup>12</sup> A Stack Test was performed on C11 in August 2000.

### U5 Specific Conditions

#### S1. Standards (Regulation 2.16, section 4.1.1)

##### a. HAP

- i. At all times the owner or operator must operate and maintain Emission Point E12, including associated air pollution control equipment (C11) and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.11205(a))
- ii. The owner or operator must have a one-time energy assessment performed by a qualified energy assessor. This assessment must meet the requirements outlined in 40 CFR 63, subpart JJJJJ, Table 2, item 4. (40 CFR 63.11201(b))<sup>13</sup>
  - 1) Visual inspection;
  - 2) An evaluation of operating characteristics of the facility;
  - 3) Inventory of major energy-consuming systems;
  - 4) A review of available architectural and engineering plans;
  - 5) A review of the facility's energy management practices;
  - 6) A list of major energy conservation measures;
  - 7) A list of energy savings; and
  - 8) A comprehensive report detailing the ways to improve efficiency

##### b. NOx

- i. See Plantwide Specific Conditions.

##### c. Opacity

- i. The owner or operator shall not cause the emission into the open air of particulate from any indirect heat exchanger which is greater than 20% opacity.<sup>14</sup> (Regulation 6.07, section 3.2 and Regulation 7.06, section 5.1.1)
- ii. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity.<sup>14</sup> (Regulations 6.09, section 3.1 and Regulation 7.08, section 3.1.1)

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<sup>13</sup> The one-time energy assessment was performed and submitted on May 14, 2013.

<sup>14</sup> The District has determined that using a natural gas fired boiler should inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.

- iii. The owner or operator shall utilize the wet scrubber (C11) at all times the wood-fired boiler (E12) is in operation shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
- d. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
- i. For the wood-fired boiler (E12), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.40 pounds per million BTU actual total heat input. (Regulation 6.07, section 3.1)
  - ii. For the natural gas boiler (E14), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.33 pounds per million BTU actual total heat input.<sup>15</sup> (Regulation 7.06, section 4.1.4)
  - iii. For sawdust handling (E13), the owner or operator shall not allow PM emissions to exceed 5.7 lb/hr per piece of equipment based on actual operating hours in a calendar day.<sup>16</sup> (Regulation 6.09, section 3.2)
  - iv. For Emission Points E21, E22, and E23, the owner or operator shall not allow PM emissions to exceed 7.09 lb/hr per piece of equipment based on actual operating hours in a calendar day.<sup>16</sup> (Regulation 7.08, section 3.1.2)
  - v. The owner or operator shall operate and maintain the control devices at all times that the process equipment E12 is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards.
- e. **SO<sub>2</sub>**
- i. For the wood-fired boiler (E12), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 2.34 pounds per million BTU actual total heat input. (Regulation 6.07, section 4.1)
  - ii. For the natural gas boiler (E14), the owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 1.0 pounds per million BTU

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<sup>15</sup> A one-time PM and SO<sub>2</sub> compliance demonstration has been performed for the boiler (E14), using AP-42 emission factors and combusting natural gas, and the pounds per million BTU emission standards for Regulation 7.06 cannot be exceeded uncontrolled. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to PM and SO<sub>2</sub> emission limits for Regulation 7.06.

<sup>16</sup> The potential uncontrolled PM emissions for each piece of equipment are less than the standard in Regulation 6.09 and 7.08.

actual total heat input for combustion of liquid and gaseous fuels.<sup>17</sup>  
(Regulation 7.06, section 5.1.1)

f. **TAC**

- i. See Plantwide Specific Conditions.<sup>18</sup>

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **HAP**

- i. For the wood-fired boiler (E12), an existing biomass-fired boiler, you must conduct a performance tune-up according to §63.11223(b). You must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted an initial tune-up of the boiler.<sup>19</sup> (40 CFR 63.11214(b))
- ii. Except as specified in paragraphs (c) through (f) of §63.11223, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in §63.11223(b)(1) through (7). Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. (40 CFR 63.11223(b))
- 1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). (40 CFR 63.11223(b)(1))
  - 2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.11223(b)(2))
  - 3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). (40 CFR 63.11223(b)(3))
  - 4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and

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<sup>17</sup> A one-time PM and SO<sub>2</sub> compliance demonstration has been performed for the boiler (E14), using AP-42 emission factors and combusting natural gas, and the pounds per million BTU emission standards for Regulation 7.06 cannot be exceeded uncontrolled. Therefore, there are no monitoring, record keeping, and reporting requirements for this boiler with respect to PM and SO<sub>2</sub> emission limits.

<sup>18</sup> All of the TACS from this Emission Unit are Environmental Acceptable at uncontrolled potential.

<sup>19</sup> The Notification of Compliance Status was received September 19, 2011.

- with any nitrogen oxide requirement to which the unit is subject. (40 CFR 63.11223(b)(4))
- 5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.11223(b)(5))
  - 6) Maintain on-site and submit, if requested by the District, a report containing the information in §63.11223(b)(6)(i) through iii). (40 CFR 63.11223(b)(6))
    - a) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. (40 CFR 63.11223(b)(6)(i))
    - b) A description of any corrective actions taken as a part of the tune-up of the boiler. (40 CFR 63.11223(b)(6)(ii))
  - 7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. (40 CFR 63.11223(b)(7))
- iii. You must maintain the records specified in §63.11225(c)(1) through (7). (40 CFR 63.11225(c))
- 1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted. (40 CFR 63.11225(c)(1))
  - 2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 and §63.11223 as specified in §63.11225(c)(2)(i) through (vi). (40 CFR 63.11225(c)(2))
    - (a) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned. (40 CFR 63.11225(c)(2)(i))
    - (b) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report. (40 CFR 63.11225(c)(2)(iii))
  - 3) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment. (40 CFR 63.11225(c)(4))

- 4) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. (40 CFR 63.11225(c)(5))
- iv. Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years. (40 CFR 63.11225(d))
- b. **NO<sub>x</sub>**
    - i. See Plantwide Specific Conditions.
  - c. **Opacity**
    - i. For Emission Point E12, the owner or operator shall daily monitor pressure drop across the wet scrubber and perform daily visual inspections according to their Compliance Assurance Monitoring (CAM) Plan.<sup>20</sup>
    - ii. For Emission Points E13, E21, E22 and E23, the owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
    - iii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
    - iv. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

- d. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
- i. For Emission Point E12, the owner or operator shall comply with the most recent Compliance Assurance Monitoring (CAM) Plan. See Appendix A.<sup>20</sup> (40 CFR 64.6(c))
  - ii. The owner or operator shall, monthly, perform a visual inspection of the structural and mechanical integrity of the baghouse for signs of damage, air leakage, corrosion, etc. and repair as needed.
  - iii. The owner or operator shall, daily, maintain records of any periods of time where the process was operating and the baghouse was not operating or a declaration that the control devices operated at all times that day when the process was operating.
  - iv. The owner or operator shall clearly record and identify the following:
    - 1) All periods of excursions of the pressure drops;
    - 2) All periods of exceedance of the pound per hour PM emission standards, during bypasses;
    - 3) Including the emission point designation;
    - 4) Quantity of the exceedance, duration of exceedance, reason for exceedance; and
    - 5) Any corrective action taken.
- b. **SO<sub>2</sub>**
- For Emission Point E12:
- i. The owner or operator shall keep daily records of the amount of wood combusted each day.
  - ii. The owner or operator shall record the weight percent sulfur contained in the sawdust/wood used as a fuel.
- For Emission Point E14:
- i. The owner or operator shall record and maintain records of the amount of each fuel combusted during each calendar month. (40 CFR 60.48c(g)(2))
  - ii. As an alternative to meeting the requirements of 40 CFR 60.48c(g)(2), the owner or operator shall record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month. (40 CFR 60.48c(g)(3))
- c. **TAC**
- i. See Plantwide Specific Conditions.

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<sup>20</sup> The CAM Plan was submitted on August 1, 2016.



**S3. Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

**a. HAP**

- i. The owner or operator shall submit the notifications specified in 40 CFR 63.11225(a)(1), (2) and (4). (40 CFR 63.11225(a))
- ii. The owner or operator shall submit a biennial compliance report, by March 1 biennially, containing the information specified in 40 CFR 63.11225(b)(1) through (3). (40 CFR 63.11225(b))

**b. NO<sub>x</sub>**

- i. See Plantwide Specific Conditions.

**c. Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for Opacity:

- i. Emission Unit ID number and Stack ID number;
- ii. The beginning and ending date of the reporting period;
- iii. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed;
- iv. The date, time and results of each Method 9 conducted; and
- v. Description of any corrective action taken.

**d. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. Emission Unit ID number and Emission Point ID number;
- ii. The beginning and ending date of reporting period;
- iii. The monthly and 12 consecutive month PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions;
- iv. Identification of all periods of bypassed emissions; and
- v. Description of any corrective action taken for each exceedance.

**e. SO<sub>2</sub>**

For Emission Point E12:

- i. Emission Unit ID number and Stack ID number;
- ii. Identification of all periods of exceedances of the SO<sub>2</sub> standard including the quantity of excess emissions;
- iii. Reason for excess emissions whether process upset, control device malfunction, other know causes; or unknown causes; and

- iv. Description of any corrective action taken.
  - f. **TAC**
    - i. See Plantwide Specific Conditions.
- S5. **Testing** (Regulation 2.16, section 4.3.1)
- a. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
    - i. Within 180 days from the effective date of the permit, the owner or operator shall perform an EPA Reference Method 5 performance test within +/- 10% of maximum production on the outlet and inlet of control device (C11) to determine the emission rate and control efficiency.
    - ii. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
    - iii. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.
    - iv. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.
  - b. **CO<sup>21</sup>**
    - i. Within 180 days from the effective date of the permit, the owner or operator shall perform an EPA Reference Method 10 performance test within +/- 10% of maximum production on Emission Pont E12.
    - v. The owner or operator shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators (e.g. pressure drop) that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test.
    - vi. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.
    - vii. The owner or operator shall furnish the District with a written report of the results of the compliance test within 60 days following the actual date of the compliance test.

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<sup>21</sup> Stack test added to provide an emissions factor for emissions inventory.

**Emission Unit U6: Barrel Coating and Sealing Operations**

**U6 Applicable Regulations<sup>22</sup>**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
7.08	Standards of Performance for New Process Operations	1, 2, 3, and 5
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.1, 3.2, 4, and 5

**U6 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Installation Date</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E15	Barrel coating and sealing operations	1993	7.08, 7.25	Filters

**U6 Control Devices**

There are filters associated with Emission Point E15.

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<sup>22</sup> There are no TACs present in the material handled per MSDS/SDS.

### U6 Specific Conditions

**S1. Standards** (Regulation 2.16, section 4.1.1)

**a. Opacity**

- i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

**b. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. For Emission Point E24 and E25, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr per piece of equipment based on actual operating hours in a calendar day.<sup>23</sup> (Regulation 7.08, section 3.1.2)

**c. VOC**

- i. The owner or operator shall not allow or cause the plantwide VOC emissions to exceed 5 tons per year for affected facilities subject to Regulation 7.25, unless Best Available Control Technology (BACT) analysis is submitted for review and approval. (Regulation 7.25, sections 2.1 and 3.1)

**S2. Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. Opacity**

- i. There are no monitoring and record keeping requirements for this pollutant.

**b. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. There are no monitoring and record keeping requirements for this pollutant.

**c. VOC**

The owner or operator shall monitor and, monthly, maintain records each calendar month and consecutive 12-month period of the following information:

- 1) Quantity of barrel sealant used (in gallons);
- 2) The weight percent of each VOC in the barrel sealant;
- 3) The total VOC emissions for each calendar month and 12 consecutive month VOC emissions for each month.

**S3. Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

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<sup>23</sup> The potential uncontrolled PM emissions for each piece of equipment are less than the standard from Regulation 7.08.

- a. **Opacity**
  - i. There are no reporting requirements for this pollutant.
- b. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
  - i. There are no reporting requirements for this pollutant
- c. **VOC**
  - i. Emission Unit ID number and Emission Point and /or Stack ID number;
  - ii. The beginning and ending date of the reporting period;
  - iii. The total monthly and twelve consecutive month VOC emissions.

**Emission Unit U8: Barrel Toasting Operations**

**U8 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
7.08	Standards of Performance for New Process Operations	3 and 4
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.1, 3.2, 4, and 5

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
5.01	General Provisions	1 through 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

**U8 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E17	Preheat oven installed prior to 2001	STAR, 7.08, 7.25	N/A
E18	Infrared warmers		
STAR rules consist of Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23.			

**U8 Control Devices**

There are no control devices associated with Emission Unit U8.

### U8 Specific Conditions

#### S1. **Standards** (Regulation 2.16, section 4.1.1)

- a. **NO<sub>x</sub>**
  - i. The owner or operator shall not allow NO<sub>x</sub> emissions to exceed 300 ppm by volume expressed as NO<sub>2</sub>.<sup>24</sup> (Regulation 7.08, section 4.1.)
- b. **Opacity**
  - i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)
- a. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
  - i. For Emission Points E17 and E18, the owner or operator shall not allow PM emissions to exceed 11.61 lb/hr per piece of equipment based on actual operating hours in a calendar day.<sup>25</sup> (Regulation 7.08, section 3.1.2)
- b. **TAC**
  - i. See Plantwide Specific Conditions.<sup>26</sup>
- c. **VOC**
  - i. The owner or operator shall not allow or cause the VOC emissions from this equipment to exceed 13 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)

#### S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

- a. **NO<sub>x</sub>**
  - i. See Plantwide Specific Conditions.
- b. **Opacity**
  - i. The owner or operator shall conduct a monthly one-minute visible emissions survey, during normal operation and daylight hours, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

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<sup>24</sup> A one-time compliance demonstration for NO<sub>x</sub> was performed, demonstrating that the standard cannot be exceeded uncontrolled.

<sup>25</sup> The potential uncontrolled PM emissions for each piece of equipment are less than the standard from Regulation 7.08.

<sup>26</sup> The uncontrolled potential TAC emissions cannot exceed *de minimis* and the TAC emissions from the combustion of natural gas are considered to be "*de minimis* emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas. (Regulation 5.01, section 1.6.7)

- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
  - iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.
- c. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
    - i. There are no compliance monitoring or record keeping requirements for this pollutant.
  - d. **TAC**
    - i. See Plantwide Specific Conditions.
  - e. **VOC**
    - i. The owner or operator shall monitor and, monthly, monthly records of the total VOC emissions for each calendar month and 12 consecutive month VOC emissions for each month.

**S3. Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

- a. **NO<sub>x</sub>**
  - i. See Plantwide Specific Conditions.
- b. **Opacity**
  - i. Emission Unit ID number and Emission Point and/or stack ID number;
  - ii. The beginning and ending date of the reporting period;
  - iii. The date, time and results of each visible emissions survey conducted that resulted in visible emissions being observed.
  - iv. The date, time and results of each Method 9 conducted; and
  - v. Description of any corrective action taken.



- c. **PM/PM<sub>10</sub>/PM<sub>2.5</sub>**
  - i. There are no routine compliance reporting requirements for this pollutant.
- d. **TAC**
  - i. See Plantwide Specific Conditions.
- e. **VOC**
  - i. Emission Unit ID number and Emission Point and /or Stack ID number;
  - ii. The beginning and ending date of the reporting period;
  - iii. The total monthly and twelve consecutive month VOC emissions.

**Emission Unit U9: Fine Dust Boxes**

**U9 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
7.08	Standards of Performance for New Process Operations	1, 2, 3, and 5

**U9 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E24	Fully-enclosed 12" screw conveyor, conveyed to two dust storage boxes	7.08	N/A

**U9 Control Devices**

There are no control devices associated with Emission Unit U9.

**U9 Specific Conditions****S2. Standards** (Regulation 2.16, section 4.1.1)**a. Opacity**

- i. The owner or operator shall not allow visible emissions to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

**b. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. For Emission Point E24 and E25, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr per piece of equipment based on actual operating hours in a calendar day.<sup>27</sup> (Regulation 7.08, section 3.1.2)

**S3. Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. Opacity**

- i. There are no monitoring and record keeping requirements for this pollutant.

**a. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. There are no monitoring and record keeping requirements for this pollutant.

**S4. Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

**a. Opacity**

- i. There are no reporting requirements for this pollutant.

**b. PM/PM<sub>10</sub>/PM<sub>2.5</sub>**

- i. There are no reporting requirements for this pollutant.

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<sup>27</sup> The potential uncontrolled PM emissions for each piece of equipment are less than the standard from Regulation 7.08.

**Permit Shield**

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

**Off-Permit Documents**

There are no off permit documents associated with this Title V permit.

**Alternative Operating Scenario**

The company requested no alternative operating scenario in its Title V application.

**Insignificant Activities**

Equipment	Quantity	PTE (tpy)	Regulation Basis
Miscellaneous wood working operations including: assembly crozier, bunghole drill, head stave dowel pin drill, head stave dowel pin drill, head stave tongue and groove operations, barrel router, equalizers, planers, jointers, edgers and head rounders <sup>28</sup>	4	--	Regulation 1.02, Appendix A, 3.5
Wood Drying Operation: 3 kilns installed in 1979 and 5 kilns installed in 1981 (U1)	8	VOC = 3.93	Regulation 1.02, Section 1.38.1.1
45 gallon parts washer with secondary reservoir (See Emission Unit IA1)	1	VOC = 0.09	Regulation 1.02, Appendix A, 3.22

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.
- 3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.
- 6) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.
- 7) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

<sup>28</sup> These wood cuttings are too large to become airborne and instead are collected and fed directly through a material handling cyclone and to the wood-fire boiler.

**IA1 Emission Unit Description:** Cold Solvent Parts Cleaner (Non-Halogenated)

**IA1 Applicable Regulations**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
6.18	Standard of Performance for New Solvent Metal Cleaning Equipment	1, 2, 3, 4.1, 4.2, 4.3, and 4.4

**IA1 Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>
E16	45 gallon parts washer with secondary reservoir installed in 1995	6.18	N/A

**IA1 Control Devices**

There are no control devices associated with Emission Unit IA1.

**IA1 Specific Conditions****S2. Standards** (Regulation 2.16, section 4.1.1)**a. VOC**

- i. The owner or operator shall install, maintain, and operate the control equipment as follows: (Regulation 6.18, section 4)
  - 1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. (Regulation 6.18, section 4.1.1)
  - 2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, section 4.1.2)
  - 3) A permanent, conspicuous label summarizing the operating requirements specified in Regulation 6.18, section 4.2 shall be installed on or near the cold cleaner. (Regulation 6.18, section 4.1.3)
  - 4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. (Regulation 6.18, section 4.1.4)
  - 5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, section 4.1.6)
  - 6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, section 4.1.8)
- ii. The owner or operator shall observe at all times the following operating requirements: (Regulation 6.18, section 4.2)
  - 1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device

that allows pressure relief, but does not allow liquid solvent to drain from the container. (Regulation 6.18, section 4.2.1)

- 2) The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, section 4.2.2)
  - 3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, section 4.2.3)
  - 4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. (Regulation 6.18, section 4.2.4)
  - 5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, section 4.2.5)
  - 6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. (Regulation 6.18, section 4.2.6)
  - 7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. (Regulation 6.18, section 4.2.7)
- iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). (Regulation 6.18, section 4.3.2)

**S3. Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

- i. The owner or operator shall maintain records that include the following for each purchase: (Regulation 6.18, section 4.4.2)
  - 1) The name and address of the solvent supplier,
  - 2) The date of the purchase,
  - 3) The type of the solvent, and
  - 4) The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

**S3. Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, identification of all period of exceedances of an emission limit and the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period. (See General Condition 14.)

**a. VOC**

- i. There are no routine compliance reporting requirements for Regulation 6.18.



### Appendix A: Compliance Assurance Monitoring (CAM) Plan

**Emission Unit:** U2

**Emission Point:** E1, E2, E3, E4, and E5

**Applicable Regulation:** 7.08

**PM Emission Limit:** 3.05 lb/hr, 4.24 lb/hr, 3.64 lb/hr, 2.34 lb/hr and 2.34 lb/hr

**Control Device:** B1, B2, B3, B4 and B5

**Monitoring Approach:** The key elements of the monitoring approach are presented in Table 2.

**Table 2: CAM Plan**

Parameter	Indicator 1	Indicator 2	Inspection Maintenance
Indicator [(64.6(c)(1)(i))]	Pressure Drop ( $\Delta P$ ) across baghouse	Visible Emissions	Daily pressure drop monitor across the baghouses
Measurement Approach [(64.6(c)(1)(ii))]	A pressure drop indicator shall be used to measure $\Delta P$ across the baghouse.	Visible emission surveys will be conducted on a monthly basis.	Monthly visual inspection of the structural and mechanical integrity of the dust collector. Weekly and Quarterly maintenance inspection as recommended by the manufacturer
Indicator Range [(64.6(c)(2))]	An excursion for the baghouse is defined as any operating condition where the $\Delta P$ is less than 1 inches H <sub>2</sub> O or greater than 6 inches H <sub>2</sub> O.	An excursion for visible emissions is defined as the presence of any visible emissions greater than 20% opacity.	
Bypass [(64.6(c)(2))]	If the $\Delta P$ falls below the 1 inches H <sub>2</sub> O, a possibility of a bypass is investigated.	--	
QIP Threshold [64.8]	Daily $\Delta P$ readings outside the performance indicator range for more than 3 times within a 1 month period	Visible emissions greater than 20% opacity for more than 3 times within a 1 month period	
Performance Criteria/data representativeness [64.6(c)(1)(iii)]	$\Delta P$ : Minimum acceptable accuracy of pressure drop indicator per manufacturer's specifications	Measurements are made at the exhaust stack	

Parameter	Indicator 1	Indicator 2	Inspection Maintenance
QA/QC Practices and Criteria [64.6(b)(3)]	$\Delta P$ : Visual inspection per permit conditions and routine maintenance per manufacturer's recommendations. Inspect and maintain per manufacturer's recommendations	The observer will be certified in Method 9 procedures.	
Monitoring Frequency [64.6(b)(4)]	$\Delta P$ monitored on a daily basis	Visible Emissions Survey conducted on a monthly basis	Monthly Inspection Records are maintained to document monthly visual inspection and any maintenance performed.
Data Collection Procedures [64.6(b)(4)(iii)]	Recorded on a daily basis	Recorded by observer on a monthly basis	
Record Keeping and Reporting [64.9]	Excursion reporting and corrective actions taken	--	
	Semi-annual Reports include: <ul style="list-style-type: none"> <li>Investigation and corrective action report,</li> <li>Date, time, and duration of excursion,</li> <li>Cause of and corrective actions taken to eliminate excursion, and</li> <li>Measures taken to prevent re-occurrence.</li> <li>A description of the actions taken to implement a QIP (as applicable)</li> </ul>	Semi-annual Reports include: <ul style="list-style-type: none"> <li>Investigation and corrective action report,</li> <li>Date, time, and duration of excursion,</li> <li>Cause of and corrective actions taken to eliminate excursion, and</li> <li>Measures taken to prevent re-occurrence.</li> <li>A description of the actions taken to implement a QIP (as applicable)</li> </ul>	

### **Justification**

***Background:*** The pollutant specific emission source control devices at the facility consist of a baghouse to control PM emissions from the conveyance of wood from the process cyclones.

***Rationale for Selection of Performance Indicators:*** Pressure drop and visible emissions were selected as performance indicators because, in combination, they are indicative of good operation

and maintenance. When the system is operating properly, there will be little or no visible emissions. This is a good indicator because any increase in visible emissions indicates reduced control device performance.

*Rationale for Selection of Indicator Ranges:* The selected range for the baghouse is 1” to 6” H<sub>2</sub>O. These values are based on manufacturer’s recommended specifications for proper operation of the control devices. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence. All excursions will be documented.

*Quality Improvement Plan (QIP) Threshold:* The selected QIP threshold is three excursions within a 1 month period. If the QIP threshold is exceeded in a semi-annual period, a QIP will be developed and implemented.

**Emission Unit:** U5

**Emission Point:** E12

**Applicable Regulation:** 6.07

**PM Emission Limit:** 0.40 lbs per MMBtu heat input

**Control Device:** C11

**Monitoring Approach:** The key elements of the monitoring approach are presented in Table 3 below.

**Table 3: CAM Plan**

Parameter	Indicator 1	Indicator 2	Inspection Maintenance
Indicator [(64.6(c)(1)(i))]	Pressure Drop ( $\Delta P$ ) across the wet scrubber	Visible Emissions	Daily pressure drop monitor across the wet scrubber. Daily visual inspections.
Measurement Approach [(64.6(c)(1)(ii))]	A pressure drop indicator shall be used to measure $\Delta P$ across the wet scrubber.	Method 9 Visible emission surveys will be conducted on a daily basis.	
Indicator Range [(64.6(c)(2))]	An excursion for the scrubber is defined as any operating condition where the $\Delta P$ is less than 2 inches H <sub>2</sub> O or greater than 6 inches H <sub>2</sub> O.	An excursion for visible emissions is defined as the presence of any visible emissions greater than 20% opacity on a six minute average.	
Bypass [(64.6(a)(2))]	If the $\Delta P$ falls below the 2 inches H <sub>2</sub> O, a possibility of a bypass is investigated.	If the opacity exceeds 20%, a possibility of a bypass is investigated	If visible emissions are observed greater than 20%, corrective action is taken within eight (8) hours of the initial observation.
QIP Threshold [64.8]	Daily $\Delta P$ readings outside the performance indicator range for more than 3 times within a 1 month period	Visible emissions greater than 20% opacity for more than 3 times within a 1 month period	
Performance Criteria/data representativeness [64.6 (c)(1)(iii)]	$\Delta P$ : Minimum acceptable accuracy of pressure drop indicator per manufacturer's specifications	Measurements are made at the exhaust stack	

Parameter	Indicator 1	Indicator 2	Inspection Maintenance
QA/QC Practices and Criteria [64.6 (b)(3)]	$\Delta P$ : Visual inspection per permit conditions and routine maintenance per preventative maintenance schedule	The observer will be certified in Method 9 procedures.	
Monitoring Frequency [64.6 (b)(4)]	$\Delta P$ monitored on a daily basis	Visible Emissions Survey conducted on a daily basis	Annual Inspection Records are maintained to document daily visual inspections and any maintenance performed.
Data Collection Procedures [64.6 (b)(4)(iii)]	Recorded on a daily basis	Recorded by observer on a daily basis	
Record Keeping and Reporting [64.9]	Excursion reporting and corrective actions taken	--	
	Semi-annual Reports include: <ul style="list-style-type: none"> <li>• Investigation and corrective action report.</li> <li>• Date, time, and duration of excursion.</li> <li>• Cause of and corrective actions taken to eliminate excursion, and</li> <li>• Measures taken to prevent re-occurrence</li> <li>• A description of the actions taken to implement a QIP (as applicable)</li> </ul>	Semi-annual Reports include: <ul style="list-style-type: none"> <li>• Investigation and corrective action report.</li> <li>• Date, time, and duration of excursion.</li> <li>• Cause of and corrective actions taken to eliminate excursion, and</li> <li>• Measures taken to prevent re-occurrence</li> <li>• A description of the actions taken to implement a QIP (as applicable)</li> </ul>	

### **Justification**

*Background:* The pollutant specific emission source control devices at the facility consist of a Wet scrubber to control PM emissions from the combustion of wood waste.

*Rationale for Selection of Performance Indicators:* Pressure drop and visible emissions were selected as performance indicators because, in combination, they are indicative of good operation and maintenance. When the system is operating properly, there will be little or no visible

emissions. This is a good indicator because any increase in visible emissions indicates reduced control device performance.

*Rationale for Selection of Indicator Ranges:* The selected range for the wet scrubber is 2” to 6” H<sub>2</sub>O. These values are based on manufacturer’s recommended specifications for proper operation of the control devices. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence. All excursions will be documented.

*Quality Improvement Plan (QIP) Threshold:* The selected QIP threshold is three excursions within a 1 month period. If the QIP threshold is exceeded in a semi-annual period, a QIP will be developed and implemented.

## Appendix B: Default Emission Factors, Calculation Methodologies, Stack Tests and Control Efficiencies

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc) or hours of operation of the equipment by the appropriate emission factor and accounting for any control devices unless otherwise approved in writing by the District.

**Table 4: U2 Emission Points, Barrel and Head Production and Finishing Operations**

<b>Emission Point</b>	<b>Description</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
E1	Conveyance from Woodworking 1 equipment consisting of #2 Head Line Planer, Narrow Head Line Planer, Narrow Head Line Edger, Rounder and Scrap Grinder, Finish Head Planer, Stave Jointers (for 3-1 through 3-2 Stave Lines), Heading Jointer (for 2-1 through 2-3 Stave Lines), Head Rounder #1 and Head Rip Saw to process cyclone #1 with capacity 6,726 tons/yr and a removal efficiency of 86%	B1, Donaldson Torit pulse-jet baghouse, control efficiency of 99.9%	All emission factors, process device and control device efficiencies are based on the study conducted by Kentuckiana Engineering in March of 2004 and taken from "BGC Louisville calculations 7-704.xls"  Equipment emission factors are based on calculations conducted by the facility in March 2003 and submitted as part of the facility's 2003 emission inventory report to APCD.
E2	Conveyance from Woodworking 2 equipment consisting of #1 & #2 Stave Line Equalizer, Stave Rip Saw, #1 & #2 Stave Line Planer and Jointer (for 1-1 through 1-5 & 2-3 through 25 Stave Lines) to process cyclone #2 with capacity 11,476 tons/yr and removal efficiency of 94.0%	B2, baghouse, control efficiency of 98.3%	
E3	Conveyance from Woodworking 3 equipment consisting of #3 Stave Line Planer, #3 Stave Line Equalizer, Head Rounder #2, Head Jointer (for 1-1 through 1-3 Stave Lines), Jointer (for 2-1 through 2-2 and 3-3 through 3-5 Stave Lines) and Head Line Planer #1 to process cyclone #3 with capacity 8,976 tons/yr and a removal efficiency of 88.6%	B3, Donaldson Torit pulse-jet baghouse, control efficiency of 99.5%	
E4	Conveyance for Woodworking 4 equipment consisting of Wood Hog for Equalizer, Head Line Wood Hog for Rounders, and Truck Load-out to process cyclone #4 with capacity of 4,409 ton/yr and a removal efficiency of 99.3%	B4, Baghouse, control efficiency of 99.9%	
E5	Conveyance from Woodworking 5 equipment consisting of South Wood Hog and West Wood Hog to process cyclone #5 with capacity 2,459 tons/yr and a removal efficiency of 97.4%	B5, baghouse, control efficiency of 99.2%	

**Table 5: U3 Emission Points, Barrel and Head Charring Operations**

<b>Emission Point</b>	<b>Description</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
E8	Barrel Charring Operation	C6 — Venturi Wet Scrubber in series with Wet Electrostatic Precipitator	HAPs: AP-42 1.4-1 PM <sub>10</sub> = PM <sub>2.5</sub> = 0.18 lbs/hr (January 2011 Stack Test conducted by O'Brien and Gere) April 1999 Stack Test conducted by BHE Environmental CO = 0.0474 lbs/barrel VOC = 0.0125 lbs/barrel SO <sub>2</sub> = 0.4 lbs/ton (AP-42, 1.10-1, conventional wood stove) NO <sub>x</sub> = 2.8 lbs/ton (AP-42, 1.10-1, conventional wood stove)
E9	Head Charring Operation	N/A	HAPs: AP-42 1.4-1 SO <sub>2</sub> = 0.4 lbs/ton (AP-42, 1.10-1, conventional wood stove) NO <sub>x</sub> = 2.8 lbs/ton (AP-42, 1.10-1, conventional wood stove) Engineering judgement is based upon the surface area ratio. The head's surface area is 21% of the barrel. PM = 0.0036 lbs/hr CO = 0.001 lbs/barrel VOC = 0.00265 lbs/barrel

**Table 6: U4 Emission Points, Glue Application and Operations**

<b>Emission Point</b>	<b>Description</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
E10	Wood Glue Operation	N/A	Emissions are based on the hours of production and VOC content of the glue.
E11	Glue Applicator Operation		



**Table 7: U5 Emission Points, Steam Generation System**

Emission Point	Description	Control Device	Acceptable Emission Factor Sources
E12	Wood-Fired Boiler rated at 42 MMBtu/hr, installed in 1967	C11 — Wet Scrubber	PM = 0.13 lb/MMBTU (Stack test conducted August 29, 2000 by Catalyst Air Management) CO, NO <sub>x</sub> , SO <sub>2</sub> VOC and HAP (AP-42, 1.6) PM <sub>10</sub> = PM <sub>2.5</sub> = 98% (PM), from AP-42, 1.6-5, with scrubber
E13, E21, E22 and E23	Sawdust Storage Tank, Screw Conveyor, Cyclone, Boiler feed hammermill rated at 6000 lb/hr, Screw Conveyor rated at 6000 lb/hr and Weigh Conveyor rated at 6000 lb/hr	C13 — pulse-jet baghouse	<i>AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants</i> , EPA 450/4-90-003, SCC 3-07-008-03, "Sawdust Pile Handling, General" for Sawmill Operations: PM = 1 lbs/ton, PM <sub>10</sub> = 0.36 lbs/ton  AP-42, Appendix B1 % breakdown for woodworking waste PM <sub>2.5</sub> = 0.14 lbs /ton for controlled PM <sub>2.5</sub> = 0.30 lbs /ton for uncontrolled
E14	Natural Gas Boiler rated at 27 MMBtu/hr, installed in 1999	N/A	AP-42 1.4

**Table 8: U6 Emission Points, Barrel Coating and Sealing Operations**

Emission Point ID	Description	Acceptable Emission Factor Sources
E15	Barrel coating and sealing operation	Emissions are based on the hours of production and the barrel coating VOC and PM contents: $VOC = (gal) \left( \frac{lb}{gal} \right) (\%VOC) \left( \frac{1 ton}{2000 lb} \right)$ $PM = (gal) \left( \frac{lb}{gal} \right) (\%PM) (1 - 65\% transfer efficiency) (1 - 90\% filter) \left( \frac{1 ton}{2000 lb} \right)$

**Table 9: U8 Emission Points, Barrel Toasting Operations**

Emission Point ID	Description	Acceptable Emission Factor Sources
E17	Preheat oven	Emissions are based on the hours of production, contents of barrels and barrel heads toasted and natural gas combustion: AP-42 1.4
E18	Infrared warmers	

**Table 10: U9 Emission Points, Fine Dust Boxes**

Emission Point ID	Description	Acceptable Emission Factor Sources
E24	Fully-enclosed 12" screw	<i>AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants</i> , EPA 450/4-90-003, SCC 3-

	conveyor, conveyed to a dust storage box	07-008-03, "Sawdust Pile Handling, General" for Sawmill Operations: PM = 1.0 lbs/ton PM <sub>10</sub> = 0.36 lbs/ton PM <sub>2.5</sub> = 0.295 lbs/ton (AP-42 Appendix B.1)
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**Table 11: IA1 Emission Points, Cold Solvent Parts Cleaner**

Emission Point ID	Description	Acceptable Emission Factor Sources
E16	45 Gallons Parts Washer	Mass Balance

### Appendix C – Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- 1. Facility name, location, and ID #;
- 2. Responsible Official and environmental contact names;
- 3. Permit numbers that are requiring the test to be conducted;
- 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- 5. Alternative test methods or description of modifications to the test methods to be used;
- 6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- 7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
- 8. Maximum rated production capacity of the system;
- 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
- 10. Method to be used for determining rate of production during the performance test;
- 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- 12. Description of normal operation cycles;
- 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- 14. Process flow diagram;
- 15. The type and manufacturer of the control equipment, if any;
- 16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- 17. How quality assurance and accuracy of the data will be maintained, including;
  - Sample identification and chain-of-custody procedures
  - If audit samples are required for this test method, audit sample provider and number of audit samples to be used
- 18. Pipe, duct, stack, or flue diameter to be tested;
- 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
  - Method 1 if stack diameter is >12"
  - Method 1a if stack diameter is greater than or equal to 4" and less than 12"
  - Alternate method of determination for <4"
  - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- 21. The Stack Test Review fee shall be submitted with each stack test protocol.