

October 20, 2017

Mr. William F. Durham  
Director  
WVDEP, Division of Air Quality  
601 – 57<sup>th</sup> Street  
Charleston, West Virginia 25304



**Re: Weyerhaeuser, Title V Renewal Application, R30-00700029-2018**

Dear Mr. Durham,

SLR International Corporation and the Environmental Department at the Heaters OSB facility have prepared the attached 45CSR30 Title V Renewal Application on behalf of Weyerhaeuser NR Company. The OSB Facility is located near Sutton in Heaters, West Virginia. The facility is currently operating under Title V operating permit number R30-00700016-2013.

In preparation for this renewal the existing terms and conditions of the permit were reviewed thoroughly for accuracy and clarity. As a result, a few areas have been identified where Weyerhaeuser's compliance measures could be streamlined to enhance compliance clarity with respect to the new Biofilter control. These comments and suggested changes are being submitted for consideration during the renewal process, as an existing permit markup at the end of this application.

Weyerhaeuser would be more than happy to discuss the details of the requested changes at your convenience. If any additional information is needed, please contact me by telephone at (304) 545-8563 or by e-mail at [jhanshaw@slrconsulting.com](mailto:jhanshaw@slrconsulting.com)

Sincerely,  
**SLR International Corporation**

A handwritten signature in blue ink that reads "Jesse Hanshaw".

Jesse W. Hanshaw, PE  
Principal Engineer

Cc: Mr. Matthew Rutherford, Weyerhaeuser Environmental Manager



global environmental solutions

Weyerhaeuser NR Company

Sutton OSB Facility

007-00016

Heaters, West Virginia

Title V Renewal Application

SLR Ref: 116.00687.00035

October 2017



## Title V Renewal Application

Prepared for:

**Weyerhaeuser NR Company**  
3601 Gauley Turnpike  
Heaters, WV 26627

This document has been prepared by SLR International Corporation. The material and data in this permit application were prepared under the supervision and direction of the undersigned.

A handwritten signature in blue ink, appearing to read "N. Lanham", written over a horizontal line.

Nathaniel Lanham  
WV Operations Manager

A handwritten signature in blue ink, appearing to read "Jesse Hanshaw", written over a horizontal line.

Jesse Hanshaw, P.E.  
Principal Engineer

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# **APPLICATION FOR PERMIT**

## **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016  
Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

DIVISION OF AIR QUALITY

601 57<sup>th</sup> Street SE

Charleston, WV 25304

Phone: (304) 926-0475

[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

<b>1. Name of Applicant (As registered with the WV Secretary of State's Office):</b> Weyerhaeuser NR Company	<b>2. Facility Name or Location:</b> Heaters Facility Sutton OSB
<b>3. DAQ Plant ID No.:</b>  0 0 7 — 0 0 0 1 6	<b>4. Federal Employer ID No. (FEIN):</b>  2 6 3 4 8 1 2 5 7
<b>5. Permit Application Type:</b>  <input type="checkbox"/> Initial Permit <input checked="" type="checkbox"/> Permit Renewal <input type="checkbox"/> Update to Initial/Renewal Permit Application  When did operations commence? MM/DD/1996 What is the expiration date of the existing permit? 04/22/2018	
<b>6. Type of Business Entity:</b>  <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Governmental Agency <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Limited Partnership	<b>7. Is the Applicant the:</b>  <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both  If the Applicant is not both the owner and operator, please provide the name and address of the other party.  _____ _____ _____
<b>8. Number of onsite employees:</b>  135	
<b>9. Governmental Code:</b>  <input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> District government owned and operated; 5	
<b>10. Business Confidentiality Claims</b>  Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.	

<b>11. Mailing Address</b>		
<b>Street or P.O. Box:</b> 3601 Gauley Turnpike		
<b>City:</b> Heaters	<b>State:</b> WV	<b>Zip:</b> 26627-
<b>Telephone Number:</b> (304) 765-4200	<b>Fax Number:</b> (304) 765-4285	

<b>12. Facility Location</b>			
<b>Street:</b> US Hwy 19	<b>City:</b> Heaters	<b>County:</b> Braxton	
<b>UTM Easting:</b> 529.939 km	<b>UTM Northing:</b> 4,290.213 km	<b>Zone:</b> <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18	
<b>Directions:</b> From I-79 Take Exit #67 at Flatwoods, Turn towards Hwy 19 North. Follow Hwy 19 North for approx. 5 miles and the mill will be on the Left			
<b>Portable Source?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Is facility located within a nonattainment area?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, for what air pollutants?</b>	
<b>Is facility located within 50 miles of another state?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, name the affected state(s).</b>	
<b>Is facility located within 100 km of a Class I Area<sup>1</sup>?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, name the area(s).</b>	
<b>If no, do emissions impact a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		Otter Creek Wilderness	
<small><sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.</small>			

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Jason Trenn		<b>Title:</b> Mill Manager
<b>Street or P.O. Box:</b> 3601 Gauley Turnpike		
<b>City:</b> Heaters	<b>State:</b> WV	<b>Zip:</b> 26627-
<b>Telephone Number:</b> (304) 765-4289	<b>Fax Number:</b> (304) 765-4280	
<b>E-mail address:</b> Jason.Trenn@Weyerhaeuser.com		
<b>Environmental Contact:</b> Matthew Rutherford		<b>Title:</b> Environmental Manager
<b>Street or P.O. Box:</b> 3601 Gauley Turnpike		
<b>City:</b> Heaters	<b>State:</b> WV	<b>Zip:</b> 26627-
<b>Telephone Number:</b> (304) 765-4217	<b>Fax Number:</b> (304) 765-4285	
<b>E-mail address:</b> Matthew.Rutherford@Weyerhaeuser.com		
<b>Application Preparer:</b> Jesse Hanshaw		<b>Title:</b> Principal Engineer
<b>Company:</b> SLR International Corporation		
<b>Street or P.O. Box:</b> 8 Capitol Street, Suite 300		
<b>City:</b> Charleston	<b>State:</b> WV	<b>Zip:</b> 25301
<b>Telephone Number:</b> (304) 545-8563	<b>Fax Number:</b> (	
<b>E-mail address:</b> jhanshaw@slrconsulting.com		



**14. Facility Description**

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Oriented Strand Board Manufacturing	Oriented Strand Board (OSB)	321219	2493

**Provide a general description of operations.**

Weyerhaeuser Sutton OSB produces oriented strandboard (OSB) with methylene diphenyl diisocyanate (MDI) resin, phenol-formaldehyde (PF) resin, wood strands, wax, and other additives to form the core layer entering the OSB press. Weyerhaeuser Sutton produces OSB using predominantly hardwood. Major processing areas at the Facility include: Log Intake and Storage, Flaking and Screening, Strand Drying, Mat Preparation, Pressing, and Board Finishing and Shipping. Miscellaneous activities undertaken at the Facility include: General Facility and vehicle maintenance, knife filing and grinding, process wastewater treatment and reuse, wood fuel intake and storage, fire water storage, and other support activities. The average OSB production rate is estimated to be 86,000 square feet per hour (86 MSF) on a 3/8 inch-basis based on 8,760 hours of operation per year.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input checked="" type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	

<b>19. Non Applicability Determinations</b>
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**List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.**

40 CFR 63, Subpart DDDDD – Boiler MACT

The fuel cell heaters were originally evaluated for boiler MACT applicability and found not to be subject as a result of their exhaust being used for direct heating of the site's rotary dryers and therefore already covered by the PWCP MACT under Subpart DDDD.

☒ Permit Shield

## 20. Facility-Wide Applicable Requirements

**List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).**

- 1) Open Burning Prohibited (Refuse), Requirement: 45CSR§6-3.1. Permit Condition: 3.1.1.
- 2) Open Burning Prohibited, Requirement: 45CSR§6-3.2. Permit Condition: 3.1.2.
- 3) Asbestos, Requirement: 40 C.F.R. §61.145(b) & 45CSR15 Permit Condition: 3.1.3.
- 4) Odor, Requirement: 45CSR§4-3.1 Permit Condition: 3.1.4.
- 5) Standby plan for reducing emissions, Requirement: 45CSR§11-5.2 Permit Condition: 3.1.5.
- 6) Emission Inventory, Requirement: W.Va. Code § 22-5-4(a)(14) Permit Condition: 3.1.6.
- 7) Ozone-depleting substances, Requirement: 40 C.F.R. 82, Subpart F Permit Condition: 3.1.7.
- 8) Risk Management Plan, Requirement: 40 C.F.R. 68 Permit Condition: 3.1.8.
- 9) Stack Testing, Requirement: WV Code § 22-5-4(a)(15) and 45CSR13 Permit Condition: 3.3.1.
- 10) Monitoring Information, Requirement: 45CSR§30-5.1.c.2.A., 45CSR13, R13-1761, 4.4.1 Permit Condition: 3.4.1.
- 11) Retention of records, Requirement: 45CSR§30-5.1.c.2.B. Permit Condition: 3.4.2.
- 12) Responsible official, Requirement: 45CSR§30-4.4. and 5.1.c.3.D. Permit Condition: 3.5.1.
- 13) Confidential information, Requirement: 45CSR§30-5.1.c.3.E. Permit Condition: 3.5.2.
- 14) DEP / USEPA Address
- 15) Certified Emissions Statement, Requirement: 45CSR§30-8. Permit Condition: 3.5.4.

☒ Permit Shield

**For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

- 1) Reporting - Permit Condition 3.1.2.
- 2) Reporting - Permit Condition 3.1.2.
- 3) Notification - Permit Condition 3.1.3.
- 4) Recordkeeping - Permit Condition: 3.4.3.
- 5) Reporting - Permit Condition: 3.1.5.
- 6) Reporting - Permit Condition: 3.1.6.
- 7) Recordkeeping - Permit Condition: 3.1.7.
- 8) Reporting - Permit Condition: 3.1.8.
- 9) Testing - Permit Condition: 3.3.1.
- 10) Recordkeeping - Permit Condition: 3.4.1.
- 11) Recordkeeping - Permit Condition: 3.4.2.
- 12) Reporting - Permit Condition: 3.5.1.
- 13) Reporting - Permit Condition: 3.5.2.
- 14) Reporting - Permit Condition: 3.5.3.
- 15) Reporting - Permit Condition: 3.5.4.

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

- 16) Compliance Certification, Requirement: 45CSR§30-5.3.e. Permit Condition: 3.5.5.
- 17) Semi-Annual Monitoring Reports, Requirement: 45CSR§30-5.1.c.3.A., 45CSR13, R13-1761, 3.5.6. Permit Condition: 3.5.6.
- 18) Deviations, Requirement: 45CSR§30-5.1.c.3.C. and 45CSR§30-5.1.c.3.B. Permit Condition: 3.5.8.
- 19) New Applicable Requirements, Requirement: 45CSR§30-4.3.h.1.B. Permit Condition: 3.5.9.
- 20) Annual Resin, MDI & Wax Throughputs, Requirement: 45CSR13, R13-1761, 4.1.9 Permit Condition: 4.1.9
- 21) Paved Access Roads, Requirement: 45CSR13, R13-1761, 4.1.12 Permit Condition: 4.1.12.
- 22) Reducing Stack Gas Concentration, Requirement: 45CSR13, R13-1761, 4.1.14.; 45CSR§7-4.3 Permit Condition: 4.1.20.
- 23) Acceptable Stack Sampling Locations, Requirement: 45CSR13, R13-1761, 4.1.14; 45CSR§7-4.12 Permit Condition: 4.1.21.
- 24) Minimize Fugitive PM, Requirement: 45CSR13, R13-1761, 4.1.14.; 45CSR§7-5.1 Permit Condition: 4.1.22.
- 25) Minimize PM, Requirement: 45CSR13, R13-1761, 4.1.14., 45CSR§7-5.2 Permit Condition: 4.1.23.
- 26) Malfunctions, Requirement: 45CSR13, R13-1761, 4.1.14; 45CSR§7-9.1 Permit Condition: 4.1.24.
- 27) PCWP MACT (Group 1 Misc. Coatings), Requirement: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3 Permit Condition: 4.1.30.
- 28) Testing by Director, Requirement: 45CSR13, R13-1761, 4.1.13, 4.1.14; 45CSR§§2-8.1.b and 8.1.b.1.; 45CSR§§7-8.1 and 7-8.2 Permit Conditions: 4.3.3., 4.3.4., 4.3.5.
- 29) Fugitive Particulate, Requirement: 45CSR§30-5.1.c Permit Conditions: 4.4.9., 4.4.10.

☒ Permit Shield

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

- 16) Reporting - Permit Condition: 3.5.5.
- 17) Reporting - Permit Condition: 3.5.6.
- 18) Reporting - Permit Condition: 3.5.8.
- 19) Reporting, Notify & Submit Compliance Schedule - Permit Condition: 3.5.9.
- 20) Monitoring - Permit Condition: 4.2.3. and Recordkeeping - Permit Condition: 4.4.5.
- 21) Monitoring/Maintain Paved Access Roads - Permit Condition: 4.1.12.
- 22) Testing - Permit Condition: 4.1.20.
- 23) Testing/Original Design/Flows - Permit Condition: 4.1.21.
- 24) Monitoring/Original Design - Permit Condition: 4.1.22.
- 25) Monitoring/Maintenance/Records - Permit Conditions: 4.1.23., 4.4.10.
- 26) Reporting (24 hours) - Permit Condition: 4.1.24.
- 27) Recordkeeping - Permit Condition: 4.1.30.
- 28) Testing - Permit Conditions: 4.3.3., 4.3.4., 4.3.5.
- 29) Monitoring/Records - Permit Conditions: 4.4.9., 4.4.10.

**Are you in compliance with all facility-wide applicable requirements?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## 21. Active Permits/Consent Orders

[illegible]

**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
See attached Potential Emissions Summary (Appendix B, Table B-1) for details	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	229
Nitrogen Oxides (NO <sub>x</sub> )	249
Lead (Pb)	0.03
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	87.8
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	95.4
Total Particulate Matter (TSP)	95.4
Sulfur Dioxide (SO <sub>2</sub> )	17.9
Volatile Organic Compounds (VOC)	249
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Total HAPs	39.8
Regulated Pollutants other than Criteria and HAP	Potential Emissions

<sup>1</sup>PM<sub>2.5</sub> and PM<sub>10</sub> are components of TSP.  
<sup>2</sup>For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

**Section 4: Insignificant Activities**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO<sub>x</sub>, SO<sub>2</sub>, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>



24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant

24. Insignificant Activities (Check all that apply)	
	owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input checked="" type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

**Section 5: Emission Units, Control Devices, and Emission Points**

<b>25. Equipment Table</b>
Fill out the <b>Title V Equipment Table</b> and provide it as <b>ATTACHMENT D</b> .
<b>26. Emission Units</b>
For each emission unit listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Emission Unit Form</b> as <b>ATTACHMENT E</b> .
For each emission unit not in compliance with an applicable requirement, fill out a <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .
<b>27. Control Devices</b>
For each control device listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Air Pollution Control Device Form</b> as <b>ATTACHMENT G</b> .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as <b>ATTACHMENT H</b> .

## Section 6: Certification of Information

### 28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

#### a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

#### b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

#### Responsible official (type or print)

Name: Jason Trenn

Title: Mill Manager

#### Responsible official's signature:

Signature: 

Signature Date: Oct. 12, 2017

(Must be signed and dated in blue ink)

#### Note: Please check all applicable attachments included with this permit application:

☒ ATTACHMENT A: Area Map

☒ ATTACHMENT B: Plot Plan(s)

☒ ATTACHMENT C: Process Flow Diagram(s)

☒ ATTACHMENT D: Equipment Table

☒ ATTACHMENT E: Emission Unit Form(s)

☐ ATTACHMENT F: Schedule of Compliance Form(s)

☒ ATTACHMENT G: Air Pollution Control Device Form(s)

☐ ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

*All of the required forms and additional information can be found and downloaded from, the DEP website at [www.dep.wv.gov/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.*

## **ATTACHMENT A**

### **AREA MAP – FACILITY LOCATION**

#### **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016  
Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017





DATE  
APRIL 2012

DRAWN BY  
MHR

Weyerhaeuser NR Company  
SUTTON SITE  
BRAXTON COUNTY – HEATERS, WEST VIRGINIA

---

ATTACHMENT A – AREA MAP

REVISION  
0

## **ATTACHMENT B**

### **PLOT PLAN – FACILITY LAYOUT**

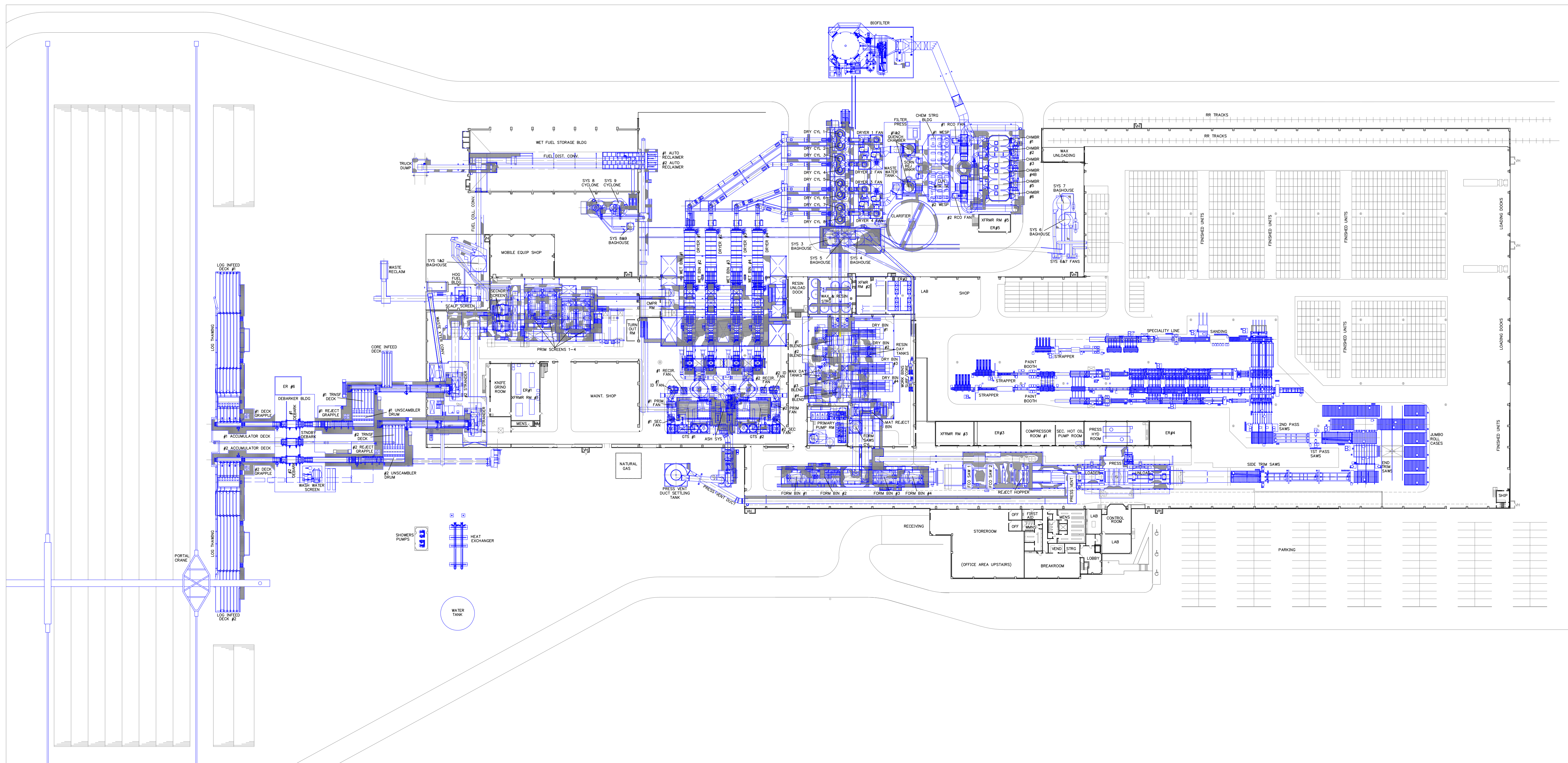
#### **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016  
Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017





REV	DATE	BY	APP'D	DESCRIPTION OF REVISION
1	09/14/17	MHR		ADDED BIOFILTER EQUIPMENT
0	12/12/01	BW		RELEASED FOR REVIEW



Engineered Strand  
Products  
Sutton OSB  
Heaters, West Virginia

APPROVED	SCALE	1"=60'	MO/DAY/YR.
DATE	DRAWN	B. WICKS	12 12 01
PROJECT	APP'D		
	APP'D		

GENERAL FACILITY EQUIPMENT LAYOUT	
DRAWING NUMBER	REV
800-G-7002-D-02	1



**ATTACHMENT C**

**PROCESS FLOW DIAGRAM**

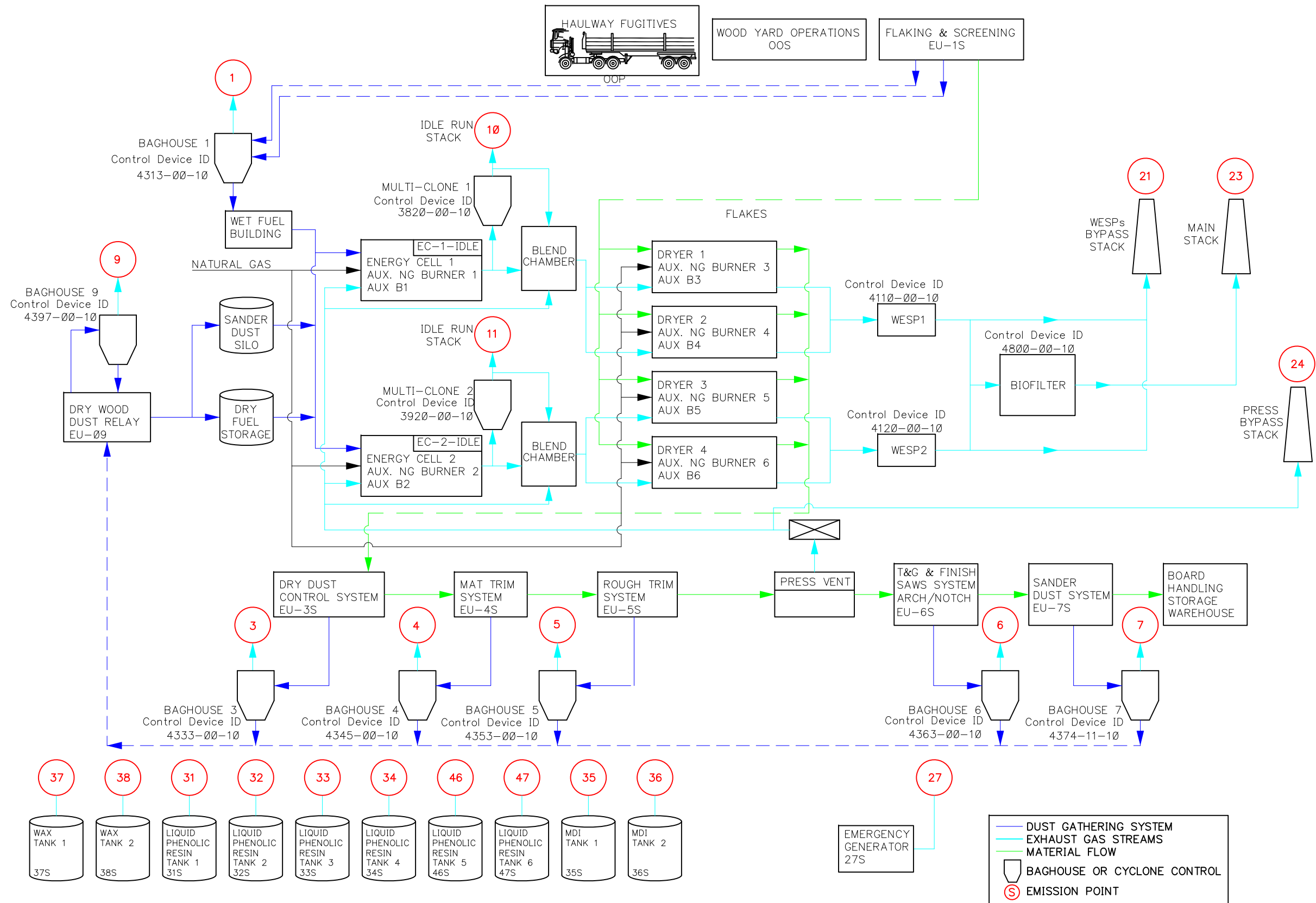
**Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016**  
**Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017

ATTACHMENT C – PROCESS FLOW



NOTES:

- Energy Cell No. 1 Wood dust burner ID. 3800-00-10  
Aux. natural gas burner ID. 3816-00-11
- Energy Cell No. 2 Wood dust burner ID. 3900-00-10  
Aux. natural gas burner ID. 3916-00-11
- Dryer No. 1 Aux. natural gas burner ID. 3130-00-11
- Dryer No. 2 Aux. natural gas burner ID. 3230-00-11
- Dryer No. 3 Aux. natural gas burner ID. 3330-00-11
- Dryer No. 4 Aux. natural gas burner ID. 3430-00-11
- OSB Press Equipment ID. 4700-00-10

9	9/14/17	MHR	—	REMOVED WAX TANK HEATER	4	1/9/08	DEK	—	ADDED RTOS.
8	2/16/16	MHR	—	REVISED PRESS VENT TO SHOW TO BLEND CHAMBERS	3	2/10/05	DEK	—	ADDED 2 TANKS, REMOVED RCOS.
7	2/8/16	MHR	—	REMOVED RCOS/RTOS & ADDED BIOFILTER W/ NEW STACK	2	5/30/02	BW	—	ADDED BAGHOUSE 3, RENUMBERED OTHERS
6	10/28/11	MHR	—	ADDED BLEND CHAMBERS	1	4/23/02	BW	—	REVISED PRESS VENT BYPASS LINE
5	10/13/11	MHR	—	ADDED ARCH/NOTCH SYSTEM TO BAGHOUSE 6	0	7/16/01	BW	—	ISSUED FOR RECORD
REV	DATE	BY	APPD	REVISION DESCRIPTION	REV	DATE	BY	APPD	REVISION DESCRIPTION



Sutton OSB  
Heaters, West Virginia

APPROVED	SCALE	NTS	MO	DAY	YR.
—	DRAWN	B. WICKS	04	23	02
PROJECT	CHK'D	M. RUTHERFORD	09	14	17

PROCESS DIAGRAM FOR WEYERHAEUSER WEST VIRGINIA SUTTON OSB FACILITY	
DRAWING NUMBER	REV 9
800-G-7003-A-02	

**ATTACHMENT D**

**EQUIPMENT TABLE**

**Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016**  
**Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017

**ATTACHMENT D - Title V Equipment Table**  
(includes all emission units at the facility except those designated as  
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/Modified
1	4313-00-10 Fabric Filter	1S	Flaking and Screening System (consists of 2 flakers, 27 conveyor pickups, 6 green screens, and 1 hog and disk screen)	65,450 ACFM 50 lb/hr (oven dry)	1996
3	4333-00-10 Fabric Filter	3S	Dry Flake Area (consists of 4 dry bins, 17 conveyor pickups, 4 weigh belts, 4 blenders, and 4 forming bins)	53,400 ACFM 3,300 lb/hr (oven dry)	1996
4	4345-00-10 Fabric Filter	4S	Mat Trim System (consists of 2 mat side trim saws, 2 flying end saws, and 6 material collection hoppers)	43,100 ACFM 5,500 lb/hr (oven dry)	1996
5	4353-00-10 Fabric Filter	5S	Rough Trim System (consists of 4 rough trim hogging heads, material collection screw, and 5 press pit floor sweeps)	21,200 ACFM 5,730 lb/hr (oven dry)	1996
6	4363-00-10 Fabric Filter	6S	Tongue & Groove and Arch/Notch Sawing System (consists of 2 four-head T&G machines, 1 two-head T&G machine, finish crosscut {2 hogging heads and 2 saws}, finish ripcut {2 hogging heads and 2 saws}, 1 Arch & 1 Notch machine cutter)	30,970 ACFM 6,200 lb/hr (oven dry)	1996 / 2011
7	4374-00-10 Fabric Filter	7S	Sander Dust System (consists of a 6-head wide belt sander)	44,800 ACFM 2,200 lb/hr (oven dry)	1996/ <a href="#">2016</a>
9	4397-00-10 Fabric Filter	9S	Dry Waste System (pneumatically relays material through 2 cyclones to the Dry Fuel Silo from Systems 3, 4, 5 and 6 to the Sander Dust Silo from System 7)	13,200 ACFM 8,550 lb/hr (oven dry)	1996
10	3820-00-10 Multi-Clone No. 1	3816-00-11	Energy Cell No. 1 Auxiliary Burner - Idle Run	29 MMBTU/hr	1996
10	3820-00-10 Multi-Clone No. 1	3800-00-10	Energy Cell No. 1 - Idle Run	<30 MMBTU/hr	1996
<del>24</del> <a href="#">23</a>	4110-00-10 Wet ESP No. 1	3816-00-11	Energy Cell No. 1 Auxiliary Burner - Normal Run	29 MMBTU/hr	1996
<del>24</del> <a href="#">23</a>	<del>4440-00-10</del> RCO No. 1	3800-00-10	Energy Cell No. 1 - Normal Run	175 MMBTU/hr	1996

11	3920-00-10 Multi-Clone No. 2	3916-00-11	Energy Cell No. 2 Auxiliary Burner - Idle Run	29 MMBTU/hr	1996
11	3920-00-10 Multi-Clone No. 2	3900-00-10	Energy Cell No. 2 - Idle Run	<30 MMBTU/hr	1996
<del>21</del> <a href="#">23</a>	4120-00-10 Wet ESP No. 2	3916-00-11	Energy Cell No. 2 Auxiliary Burner - Normal Run	29 MMBTU/hr	1996
<del>21</del> <a href="#">23</a>	<del>4460-00-10</del> <del>RCO No. 2</del> <a href="#">4800-00-10</a> <a href="#">Biofilter</a>	3900-00-10	Energy Cell No. 2 - Normal Run	175 MMBTU/hr	1996
<del>21</del> <a href="#">23</a>	4110-00-10 Wet ESP No. 1	3130-00-11	Auxiliary Burner - Dryer No. 1	55 MMBTU/hr	1996
<del>21</del> <a href="#">23</a>	<del>4440-00-10</del> <del>RCO No. 1</del> <a href="#">4800-00-10</a> <a href="#">Biofilter</a>	3230-00-11	Auxiliary Burner - Dryer No. 2	55 MMBTU/hr	1996
<del>21</del> <a href="#">23</a>	4120-00-10 Wet ESP No. 2	3330-00-11	Auxiliary Burner - Dryer No. 3	55 MMBTU/hr	1996
<del>21</del> <a href="#">23</a>	<del>4460-00-10</del> <del>RCO No. 2</del> <a href="#">4800-00-10</a> <a href="#">Biofilter</a>	3430-00-11	Auxiliary Burner - Dryer No. 4	55 MMBTU/hr	1996

<del>24</del> <a href="#">23</a>	4110-00-10 Wet ESP No. 1 <del>4440-00-10</del> RCO No. 1 4120-00-10 Wet ESP No. 2 <del>4460-00-10</del> RCO No. 2 <a href="#">4800-00-10</a> <a href="#">Biofilter</a>	4700-00-10	OSB Press Vent Exhaust	60.4 Tons/hr	1996 / 2008
24	None	4700-00-10	OSB Press Vent Exhaust (Bypass Mode)	60.4 Tons/hr	1996 / 2008
<a href="#">21</a>	<a href="#">4110-00-10</a> <a href="#">Wet ESP</a> <a href="#">No. 1</a> <a href="#">4120-00-10</a> <a href="#">Wet ESP</a> <a href="#">No. 2</a>		<a href="#">Biofilter (Bypass Mode)</a>		
27	None	27S	Emergency Diesel Generator	<del>760 hp</del> <a href="#">1,030 hp</a>	1996
31	None	31S	Liquid Phenolic Resin Tank No. 1	15,000 Gallons	1996
32	None	32S	Liquid Phenolic Resin Tank No. 2	15,000 Gallons	1996

33	None	33S	Liquid Phenolic Resin Tank No. 3	15,000 Gallons	1996
34	None	34S	Liquid Phenolic Resin Tank No. 4	15,000 Gallons	1996
46	None	46S	Liquid Phenolic Resin Tank No. 5	15,000 Gallons	2005
47	None	47S	Liquid Phenolic Resin Tank No. 6	15,000 Gallons	2005
35	None	35S	MDI Tank No. 1	15,000 Gallons	1996
36	None	36S	MDI Tank No. 2	15,000 Gallons	1996
37	None	37S	Wax Tank No. 1	15,000 Gallons	1996
38	None	38S	Wax Tank No. 2	15,000 Gallons	1996
39	None	<del>8109-00-40</del>	<del>Wax / Resin Tank Heater</del>	<del>3.5 MMBTU/hr</del>	<del>1996</del>
40 and 41	Filters	40S and 41S	Paint Booth No. 1	26 Gallons/hr	2002/ <a href="#">2016</a>
42 and 43	Filters	42S and 43S	Paint Booth No. 2	26 Gallons/hr	2002
44 and 45	Filters	44S and 45S	Paint Booth No. 3	26 Gallons/hr	2002/ <a href="#">2016</a>

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

**ATTACHMENT E**

**EMISSION UNIT FORMS**

**Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016**  
**Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017



## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 1S	<b>Emission unit name:</b> Flaking and Screening System	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4313-00-10
---------------------------------------	--	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Fabric Filter for the Flaking and Screening System which contains 2 flakers, 27 conveyor pickups, 6 green screens and 1 hog and disk screen

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
----------------------	----------------------	-----------------------

<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 65,450 ACFM

<b>Maximum Hourly Throughput:</b> 50 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

PM Limit - Permit Condition: 4.1.18.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-4.1.

**\_X\_ Permit Shield**

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Conditions: 4.1.2., 4.1.18.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit? \_X\_Yes \_\_\_No**

**If no, complete the Schedule of Compliance Form as ATTACHMENT F.**

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 3S	<b>Emission unit name:</b> Dry Flake Area	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4333-00-10
---------------------------------------	--	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Fabric Filter for the Dry Flake Area which contains 4 dry bins, 17 conveyor pickups, 4 weigh belts, 4 blenders and 4 forming bins.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
----------------------	----------------------	-----------------------

<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
---------------------------	---	------------------------------

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 53,400 ACFM

<b>Maximum Hourly Throughput:</b> 3,300 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
---	-----------------------------------	--

### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 4S	<b>Emission unit name:</b> Mat Trim System	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4345-00-10
---------------------------------------	---	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Fabric Filter for the Dry Flake Area which contains 4 dry bins, 17 conveyor pickups, 4 weigh belts, 4 blenders and 4 forming bins.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
----------------------	----------------------	-----------------------

<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
---------------------------	---	------------------------------

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 43,100 ACFM

<b>Maximum Hourly Throughput:</b> 5,500 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
---	-----------------------------------	--

### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		



***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 5S	<b>Emission unit name:</b> Rough Trim System	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4353-00-10
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Fabric Filter for the Rough Trim System which contains 4 rough trim and hogging heads, material collection screw and 5 press pit floor sweeps.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 21,200 ACFM

<b>Maximum Hourly Throughput:</b> 5,730 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 6S	<b>Emission unit name:</b> Tongue & Groove and Arch/Notch Sawing System	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4363-00-10
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Fabric Filter for the Tongue & Groove and Arch/Notch Sawing System which contains 2 four-head T & G Systems, 1 two-head T & G machine, finish crosscut (2 hogging heads & 2 saws) and finish ripcut (2 hogging heads & 2 saws), 1 Arch & 1 Notch machine cutter (3 small notch cutting heads)

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b> 11/21/2011

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 30,970 ACFM

<b>Maximum Hourly Throughput:</b> 6,200 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___Yes ___X___ No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 7S	<b>Emission unit name:</b> Sander Dust System	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4374-00-10
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Fabric Filter for the Sander Dust System which contains a 6-head wide belt sander.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b> MM/DD/2016
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 44,800 ACFM

<b>Maximum Hourly Throughput:</b> 2,200 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value



<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Visible Emissions from Storage Structure - Permit Condition: 4.1.17.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.7

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 9S	<b>Emission unit name:</b> Dry Waste Relay System	<b>List any control devices associated with this emission unit:</b> Fabric Filter 4397-00-10
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Fabric Filter for the Dry Waste System which pneumatically relays material through 2 cyclones to the Dry Fuel Silo from Systems 3, 4, 5 and 6 to the Sander Dust Silo from System 7.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 13,200 ACFM

<b>Maximum Hourly Throughput:</b> 8,550 lb/hr (oven dry)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )	See Appendix B	
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	See Appendix B	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 99.9% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Visible Emissions from Storage Structure - Permit Condition: 4.1.17.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.7

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

PM Removal Efficiency 99.9% - Recordkeeping/Original Design - Permit Condition 4.1.1. and

PM Emission Rate Limits of 4.1.2.

Compliance methods –

4.2.10 - Maintaining pressure drop across baghouse

4.2.8- Monthly visual inspection of capture system with annual inspection of baghouse internals

Opacity - Permit Conditions: 4.2.7., 4.4.8.

Must conduct Method 22 checks every two weeks and verify compliance with 45CSR7A evaluation if emissions are observed by Method 22. These records are maintained in accordance with 4.4.8.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

VEs/Inspections/Monitoring - Permit Conditions: 4.2.7., 4.2.8., 4.2.10., 4.4.8., 4.4.11., 4.4.13., 4.4.14.

Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(a), 64.9(b)

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Records of Maintenance and Malfunction of Air Pollution Control Equipment

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 27S	<b>Emission unit name:</b> Emergency Diesel-fired Generator	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Emergency Diesel-fired Generator

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**

<b>Maximum Hourly Throughput:</b> 5.32 MMBTU/hr	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 100 hrs/yr
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> 760 hp	<b>Type and Btu/hr rating of burners:</b> 5.32 MMBTU/hr
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**  
Diesel

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel	0.015%		140,000 BTU/gal

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.



## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 31S	<b>Emission unit name:</b> Liquid Phenolic Resin Tank No. 1	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Liquid phenolic resin tank

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 526,187 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 32S	<b>Emission unit name:</b> Liquid Phenolic Resin Tank No. 2	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Liquid phenolic resin tank

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 526,187 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 33S	<b>Emission unit name:</b> Liquid Phenolic Resin Tank No. 3	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Liquid phenolic resin tank

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 526,187 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		



***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 34S	<b>Emission unit name:</b> Liquid Phenolic Resin Tank No. 4	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Liquid phenolic resin tank

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 526,187 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 35S	<b>Emission unit name:</b> MDI Tank No. 1	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
MDI Tank No. 1

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 753,268 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 36S	<b>Emission unit name:</b> MDI Tank No. 2	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
MDI Tank No. 2

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 753,268 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	--

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value



<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 37S	<b>Emission unit name:</b> Wax Tank No. 1	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Wax Tank No. 1

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 1,062,762 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 38S	<b>Emission unit name:</b> Wax Tank No. 2	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Wax Tank No. 2

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 1,062,762 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.



## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 40S & 41S	<b>Emission unit name:</b> Paint Booth No. 1	<b>List any control devices associated with this emission unit:</b> Filters
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Paint Booth equipped with 2 stacks, each stack has its own fan/filtration system

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/2002	<b>Modification date(s):</b> MM/DD/2016
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 26 gallons/hr

<b>Maximum Hourly Throughput:</b> 26 gallons/hr	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Maintain Filter Systems - Permit Condition: 4.1.11.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.11

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

PCWP MACT (Group 1 Misc. Coatings) - Permit Condition: 4.1.30.

Underlying rule/regulation: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Operation & Maint. of Air Pollution Control Equipment - Permit Condition: 4.1.31.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.22; 45CSR§13-5.11

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

PCWP MACT (Group 1 Misc. Coatings) Records of Sealant used in Paint Booth - Permit Condition: 4.1.30.

Underlying rule/regulation: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 42S & 43S	<b>Emission unit name:</b> Paint Booth No. 2	<b>List any control devices associated with this emission unit:</b> Filters
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Paint Booth equipped with 2 stacks, each stack has its own fan/filtration system

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/2002	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 26 gallons/hr

<b>Maximum Hourly Throughput:</b> 26 gallons/hr	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Maintain Filter Systems - Permit Condition: 4.1.11.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.11

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

PCWP MACT (Group 1 Misc. Coatings) - Permit Condition: 4.1.30.  
Underlying rule/regulation: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Operation & Maint. of Air Pollution Control Equipment - Permit Condition: 4.1.31.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.22; 45CSR§13-5.11

Opacity - Permit Conditions: 4.2.7., 4.4.8.  
VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.  
Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.  
Record of maintenance and malfunctions of control devices  
Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

PCWP MACT (Group 1 Misc. Coatings) Records of Sealant used in Paint Booth - Permit Condition: 4.1.30.  
Underlying rule/regulation: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 44S & 45S	<b>Emission unit name:</b> Paint Booth No. 3	<b>List any control devices associated with this emission unit:</b> Filters
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Paint Booth equipped with 2 stacks, each stack has its own fan/filtration system

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/2002	<b>Modification date(s):</b> MM/DD/2016
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 26 gallons/hr

<b>Maximum Hourly Throughput:</b> 26 gallons/hr	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		



### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Maintain Filter Systems - Permit Condition: 4.1.11.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.11

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

PCWP MACT (Group 1 Misc. Coatings) - Permit Condition: 4.1.30.

Underlying rule/regulation: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

Operation & Maint. of Air Pollution Control Equipment - Permit Condition: 4.1.31.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.22; 45CSR§13-5.11

Opacity - Permit Conditions: 4.2.7., 4.4.8.

VEs/Inspections/Monitoring - M22 monitoring every two weeks and keep records.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

Control Devices - Permit Conditions: 4.4.1., 4.4.2.

Record of maintenance and malfunctions of control devices

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.2, 4.4.3

PCWP MACT (Group 1 Misc. Coatings) Records of Sealant used in Paint Booth - Permit Condition: 4.1.30.

Underlying rule/regulation: 45CSR34; 40 C.F.R. §63.2241 and 40 C.F.R. 63, Subpart DDDD, Table 3

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 46S	<b>Emission unit name:</b> Liquid Phenolic Resin Tank No. 5	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Liquid phenolic resin tank

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/2005	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 526,187 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 47S	<b>Emission unit name:</b> Liquid Phenolic Resin Tank No. 6	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Liquid phenolic resin tank

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/2005	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** 15,000 gallons

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> 526,187 gallons	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emissions Calculations in Appendix B</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

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**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Emission Rate Limits - Recordkeeping/Reporting AEI - Permit Condition: 4.1.2.  
Underlying rule/regulation: 45CSR13, R13-1761, 4.1.2

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>
3130-00-11	Dryer No. 1	
3230-00-11	No. 2	Wet Electrostatic Precipitator No. 1 (4110-00-10)
3330-00-11	No. 3	Wet Electrostatic Precipitator No. 2
3420-00-11	No. 4	Biofilter (4800-00-10)

### **Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

There are four (4) Dryers at the Facility. Each Dryer processes wood strands at a rate of 28 tons/hr (wet basis) or 14 tons/hr (dry basis). The energy for drying is normally provided by burning wood fuel in the Energy Cells Nos. 1 and 2.

The Dryers are also equipped to burn natural gas. The heat input rate while burning natural gas is 55 MMBTU/hr for each Dryer. Natural gas is burned only as back-up or during times when there is an upset conditions.

The hot gases from the Energy Cells are used to dry the wood strands in the Dryer. The hot air exiting the Dryers is then routed through two (2) wet electrostatic precipitators (WESPs), and one (1) biofilter prior to discharging to the atmosphere via Main Stack (Emission Point ID 23). The WESP units are used for controlling the emissions of particulate matter (PM) resulting from the combustion and the drying operations. The WESP units are estimated to have a PM reduction efficiency of 80% and the biofilter is used to control organics.

During routine control device maintenance allowed under the Plywood MACT exemption the Biofilter will be offline and the dryers will vent through bypass stack (Emission Point ID 21)

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b> MM/DD/2008

### **Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**

See Description Above

<b>Maximum Hourly Throughput:</b> See Fuel Information Below	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8,760 hrs
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### **Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> 55 MMBTU/hr	<b>Type and Btu/hr rating of burners:</b>



**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

1. The Dryer processes approx. 28 tons/hr of wood strands on a wet basis or 14 tons/hr on a dry basis.
2. Natural gas is burned only as back-up or during times when there is an upset condition. Heat input capacity is 55 MMBTU/hr.
3. During normal operations, the heat for Drying is supplied by burning wood fuel in Energy Cell No. 1.

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Auxiliary Fuel (Natural Gas)	< 0.01% by weight		1,020 BTU/scf

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See Appendix B	
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

See Emissions Calculations in Appendix B

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### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table (Emission Point ID 21 & 23)

Underlying rule/regulation: 45CSR13, 45CSR§7-4.1, 4.1.2

Routine Control Device Maintenance Exemption for Biofilter: Permit Condition 4.1.6

Underlying rule/regulation; 40CFR63, subpart DDDD and 45CSR13, R13-1761, Condition 4.1.6.

Dryer Burner(s) - Permit Condition: 4.1.8.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.8

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

HCl - Permit Condition: 4.1.19.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-4.2 and Table 45-7B

SO<sub>2</sub> - Permit Condition: 4.1.25.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.15.; 45CSR§10-4.1

TAPs - Permit Condition: 4.1.26.

Underling rule/regulation: 45CSR13, R13-1761, 4.1.16; 45CSR§27-3.1

PCWP MACT - Permit Conditions: 4.1.6., 4.1.29., 4.1.30., 4.1.31., 4.1.32., 4.1.33

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.6, 4.4.19., 4.1.20., 4.1.21., 4.1.22; 40 CFR 63 Subpart DDDD Table 3

  X   Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Biofilter Bed Temperature Records – Permit Condition 4.2.5.

Underlying rule/regulation: 45CSR13, R13-1761, Condition 4.2.5; 40CFR63.2270

Opacity - Permit Conditions: 4.2.7., 4.4.8.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

VEs/Inspections/Monitoring - Permit Conditions: 4.2.7., 4.2.8., 4.4.8., 4.4.11., 4.4.16

Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(a), 64.9(b), 40CSR13, R-13-1761, 4.4.7

Voltage - Permit Conditions: 4.2.9., 4.4.12., 4.4.14.

Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(b)

Testing - Permit Conditions: 4.3.1., 4.3.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.3.1; 40 CFR 63 Subpart DDDD

Control Devices - Permit Conditions: 4.2.5., 4.2.7., 4.2.8., 4.2.9., 4.3.1., 4.3.2., 4.3.4., 4.4.1., 4.4.2., 4.4.7., 4.4.8., 4.4.11., 4.4.12., 4.4.14., 4.4.16

Underlying rule/regulation: 45CSR13, R13-1761

PCWP MACT - Permit Conditions: 4.2.5., 4.3.1., 4.3.2., 4.3.6., 4.4.7., 4.4.16., 4.4.17., 4.5.2., 4.5.3.

Underlying rule/regulation: 40 CFR 63 Subpart DDDD

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b>	<b>Emission unit name:</b>	<b>List any control devices associated with this emission unit:</b>
3800-00-10	Energy Cell No. 1	Multiclone No. 1 (3820-00-10)
3816-00-11	Energy Cell No. 1 Aux NG Burner	Multiclone No. 2 (3920-00-10)
3900-00-10	Energy Cell No 2	Wet Electrostatic Precipitator No. 1 (4110-00-10)
3916-00-11	Energy Cell No. 2 Aux NG Burner	Wet Electrostatic Precipitator No. 2 (4120-00-10)
		Biofilter (4800-00-10)

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

The Energy Cells provide the energy to dry to wood flakes in the Dryers. Both Energy Cells primarily burn wood fuel. Each Energy Cell has a heat input rate of 175 MMBTU/hr while burning wood. The Energy Cells are also equipped with burners that burn natural gas. The heat input rate while burning natural gas is 29 MMBTU/hr.

The combustion air for both Energy Cells is drawn from VOC-laden exhaust from the OSB Press. The hot gases from the Energy Cells are used to dry the wood flakes in the Dryers. The hot air exiting the Dryers is then routed through two (2) wet electrostatic precipitators (WESPs), and one (1) biofilter prior to discharging to the atmosphere via Main Stack (Emission Point ID 23). The WESP units are used for controlling the emissions of particulate matter (PM) resulting from the combustion and the drying operations. The WESP units are estimated to have a PM reduction efficiency of 80% and the biofilter is used to control organics.

The Energy Cells can also operate in idle mode. The current Title V air permit limits the operation of both Energy Cells in idle mode to 2,800 hours per year combined. When the Energy Cells operate in idle mode, they burn wood fuel and the emissions are routed through two Multiclones (one for each Energy Cell) prior to discharging to the atmosphere via (Emission Point IDs 10 and 11). The Multiclones are used for controlling the PM emissions resulting from the combustion of wood and are estimated to have a PM control efficiency of 80%.

When the energy cells are online under normal drier operations they are allowed to bypass the Biofilter and vent through (Emission Point ID 21) only during times defined within the site's routine control device maintenance exemption plan as approved by WV DAQ.

<b>Manufacturer:</b> Geka Thermal Systems (GTS)	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b> MM/DD/2008

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**

See Description Above

<b>Maximum Hourly Throughput:</b> See Fuel Information Below	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 2,800 hours (EC1 & EC2 - combined during idle run mode)
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b> See Fuel Information Below	<b>Type and Btu/hr rating of burners:</b>

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

1. 19.4 tons per hour of wood fuel is burned (on a green basis) during normal operating mode and has a heat input capacity of 175 MMBTU/hr (worst case)
2. The Energy Cell also has the ability to burn natural gas with a heat input capacity of 29 MMBTU/hr.
3. The Energy Cell also operates in idle mode when wood fuel is burned, and if only one cell is operated in idle mode, the maximum heat input rate is less than 30 MMBTU/hr. If both Energy Cells are operated in idle mode, the combined heat input is limited to 40 MMBTU/hr. Both Energy Cells combined can operate a total of 2,800 hours.
4. Combustion air for Energy Cell No. 1 is drawn from the VOC-laden exhaust from the OSB press.

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Wood Fuel (barks, fines, dust)	< 0.01% by weight		4,500 BTU/lb (wet avg.)
Auxiliary Fuel (Natural Gas)	< 0.01% by weight		1,020 BTU/scf

**Emissions Data**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See Appendix B	
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

See Emissions Calculations in Appendix B

### ***Applicable Requirements***

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

PM Removal Efficiency 80% - Permit Condition: 4.1.1.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.1

Emission Rate Limits - Permit Condition: 4.1.2. Table (Emission Point ID 10, 11, 21 & 23)

Underlying rule/regulation: 45CSR13, 45CSR§7-4.1, 4.1.2

Modes of Operation – Permit Condition: 4.1.3

Underlying rule/regulation; 45CSR13, R13-1761, 4.1.3

Fuels & Heat Input Rates - Permit Conditions: 4.1.4., 4.1.5.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.4., 4.1.5.

Energy Cell(s) - Permit Conditions: 4.1.3., 4.1.4., 4.1.5., 4.1.6.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.3., 4.1.4., 4.1.5., 4.1.6.

Particulates - Permit Conditions: 4.1.14.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.13., 4.1.14.; 45CSR§2-5.1., 45CSR§7-3.2, 45CSR§7-4.1

Opacity - Reg 2 Permit Conditions: 4.1.13., 4.1.14.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.13, 4.1.14; 45CSR§2-3.1, 45CSR§2-5.1

HCl - Permit Condition: 4.1.19.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-4.2 and Table 45-7B

SO<sub>2</sub> - Permit Condition: 4.1.25.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.15.; 45CSR§10-4.1

TAPs - Permit Condition: 4.1.26.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.16; 45CSR§27-3.1

PCWP MACT - Permit Conditions: 4.1.6., 4.1.27., 4.1.28., 4.1.29., 4.1.31., 4.1.32., 4.1.33

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.6, 4.1.17, 4.1.18, 4.1.19, 4.1.20; 40 CFR 63 Subpart DDDD; 45CSR43

  X   Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Energy Cell(s) - Permit Conditions: 4.2.1., 4.4.6.

Underlying rule/regulation: 45CSR13, R13-1761

Opacity - Permit Conditions: 4.2.5., 4.2.6., 4.4.8.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

VEs/Inspections/Monitoring - Permit Conditions: 4.2.5., 4.2.6., 4.2.8., 4.4.8., 4.4.11., 4.4.14., 4.5.1.

Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(a), 64.9(b)

Voltage - Permit Conditions: 4.2.9., 4.4.12., 4.4.14.



Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(b)

Testing - Permit Conditions: 4.3.1., 4.3.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.3.1; 40 CFR 63 Subpart DDDD

Control Devices - Permit Conditions: 4.2.5., 4.2.7., 4.2.8., 4.2.9., 4.3.1., 4.3.2., 4.4.1., 4.4.2., 4.4.7., 4.4.11., 4.4.12., 4.4.14., 4.4.16.

Underlying rule/regulation: 45CSR13, R13-1761

Fuel Records & Quarterly Testing - Permit Condition: 4.4.6.

Underlying rule/regulation: 45CSR13, R13-1761, 4.4.9, 4.1.14; 40 C.F.R. §60.48c(g); 45CSR16; 45CSR§2-8.3.c; 45CSR§§2A-7.1.a.1 and 7.1.a.3

PCWP MACT - Permit Conditions: 4.2.5., 4.3.1., 4.3.2., 4.3.6., 4.4.7., 4.4.16., 4.4.17., 4.5.2., 4.5.3.

Underlying rule/regulation: 40 CFR 63 Subpart DDDD

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> 4700-00-10	<b>Emission unit name:</b> OSB Press Vent Exhaust	<b>List any control devices associated with this emission unit:</b> Wet ESP No. 1 (4110-00-10) Biofilter (4800-00-10) Wet ESP No. 2 (4120-00-10)
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

The OSB Press has 12 openings, sized 12' x 24'. The mats are loaded into the Press where they are compressed into an OSB board under heat and pressure. During normal operations the Press exhaust fumes are routed to the Energy Cells and the Dryers, and subsequently through the two (2) wet electrostatic precipitators (WESPs), and one (1) biofilter prior to discharging to the atmosphere via Main Stack (Emission Point ID 23). Occasionally, during times when there is an upset condition, the Press vent exhaust is routed through the bypass stack (Emission Point ID 24). Emissions are limited to no more than 500 hrs/yr in this mode of operation. Additionally, during routine control device maintenance allowed under the Plywood MACT exemption the Biofilter will be offline and the press will vent through bypass stack (Emission Point ID 21).

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b>	<b>Installation date:</b> MM/DD/1996	<b>Modification date(s):</b> MM/DD/2008
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**

1. The press processes approx. 56 tons/hr of wood strands on a dry basis. The wood strands are mixed with phenolic resins, MDI resins and wax.
2. The rate of phenolic resin use is estimated to range between 0.6 and 4.8 tons/hr; the average rate is estimated to be 2.3 tons/hr.
3. The rate of MDI resin use is estimated to range between 0.6 and 2.4 tons/hr; the average rate is estimated to be 1.2 tons/hr.
4. The rate of wax use is estimated to range between 0.6 and 1.2 tons/hr; the average rate is estimated to be 0.9 tons/hr.
5. The annual average production of OSB is 86 MSF/hr on a 3/8 inch basis.
6. Maximum hourly OSB production rates are based on 94 MSF/hr on a 3/8 inch basis

<b>Maximum Hourly Throughput:</b> 56 tons/hr of wood strands (dry basis)	<b>Maximum Annual Throughput:</b>	<b>Maximum Operating Schedule:</b> 8,760 hrs (Press - Stack 23) 500 hrs (Press bypass - Stack 24)
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

***Emissions Data***

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
	See Appendix B	
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

See Emissions Calculations in Appendix B

**Applicable Requirements**

**List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.**

Emission Rate Limits - Permit Condition: 4.1.2. Table (Emission Point ID 21, 23, 24)

Underlying rule/regulation: 45CSR13, 45CSR§7-4.1, 4.1.2

Routine Control Device Maintenance Exemption for Biofilter - Permit Condition 4.1.6

Underlying rule/regulation; 40CFR63, subpart DDDD and 45CSR13, R13-1761, Condition 4.1.6.

Press bypass for operations for no more than 500 hrs/yr

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.7.; 40CFR§63.2290

Particulate/Opacity - Permit Conditions: 4.1.15., 4.1.16.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-3.1, 45CSR§7-3.2

HCl - Permit Condition: 4.1.19.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.14; 45CSR§7-4.2 and Table 45-7B

SO2 - Permit Condition: 4.1.25.

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.15.; 45CSR§10-4.1

TAPs - Permit Condition: 4.1.26.

Underling rule/regulation: 45CSR13, R13-1761, 4.1.16; 45CSR§27-3.1

PCWP MACT - Permit Conditions: 4.1.6., 4.1.29., 4.1.30., 4.1.31., 4.1.32., 4.1.33

Underlying rule/regulation: 45CSR13, R13-1761, 4.1.6, 4.1.17, 4.1.18, 4.1.19, 4.1.20; 40 CFR 63 Subpart DDDD; 45CSR43

☒ Permit Shield

**For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

Monitoring of Operating Hours in Press Bypass - Permit Conditions: 4.2.2., 4.4.4.

Underlying rule/regulation: 45CSR13, R13-1761

Opacity - Permit Conditions: 4.2.6., 4.2.7., 4.4.8.

Underlying rule/regulation: 40 CFR 60 Appendix A, Method 22; 45CSR7A; 45CSR§30-5.1.c

VEs/Inspections/Monitoring - Permit Conditions: 4.2.6., 4.2.7., 4.4.8., 4.4.11., 4.4.14

Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(a), 64.9(b)

Voltage - Permit Conditions: 4.2.9., 4.4.12., 4.4.14.

Underlying rule/regulation: 45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), 64.7(d), 64.9(b)

Testing - Permit Conditions: 4.3.1., 4.3.2.

Underlying rule/regulation: 45CSR13, R13-1761, 4.3.1; 40 CFR 63 Subpart DDDD

Control Devices - Permit Conditions: 4.2.4., 4.2.7., 4.2.8., 4.2.9, 4.3.1., 4.3.2., 4.4.1., 4.4.2., 4.4.8., 4.4.11., 4.4.12., 4.4.14., 4.4.16

Underlying rule/regulation: 45CSR13, R13-1761

PCWP MACT - Permit Conditions: 4.2.4., 4.3.1., 4.3.2., 4.3.6., 4.4.7., 4.4.16., 4.4.17., 4.5.2., 4.5.3.

Underlying rule/regulation: 40 CFR 63 Subpart DDDD

**Are you in compliance with all applicable requirements for this emission unit?** ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

## **ATTACHMENT G**

### **AIR POLLUTION CONTROL DEVICE FORMS**

#### **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016  
Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4313-00-10	<b>List all emission units associated with this control device.</b> 1 - Flaking and Screening System	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 65,450 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		



<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4333-00-10	<b>List all emission units associated with this control device.</b> 3 - Dry Flake Area	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 53,400 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4345-00-10	<b>List all emission units associated with this control device.</b> 4 - Mat Trim System	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 43,100 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4353-00-10	<b>List all emission units associated with this control device.</b> 5 - Rough Trim System	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 21,200 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4363-00-10	<b>List all emission units associated with this control device.</b> 6 - Tongue & Groove and Arch/Notch Sawing System	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 30,970 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4374-00-10	<b>List all emission units associated with this control device.</b> 7 - Sander Dust System	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 44,800 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4397-00-10	<b>List all emission units associated with this control device.</b> 9 - Dry Waste Relay System	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b></div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		99.9%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Design Flow Rate = 13,200 ACFM		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Daily inspection to ensure proper operation (differential pressure checks, duct work inspection, etc.)		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 4800-00-10	<b>List all emission units associated with this control device.</b> Energy Cells 1 and 2; Dryers 1, 2, 3 and 4; and OSB Press	
<b>Manufacturer:</b>  Process Combustion Corp (PCC)	<b>Model number:</b>  P.C.C. 1046 – Biological Oxidizer System	<b>Installation date:</b>  MM/DD/2016
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Other (describe) Biofilter Scrubber</b></div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Methanol		90%
Formaldehyde		0%
VOC		19.5%
HAPs		46.7%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> Emission stream flow rate (cfm): 370,000 Emission stream gas temperature inlet: 140 degrees F		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b> CAM is not required for the Biofilter as it falls under PCWP MACT compliance		

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Continuously monitor biofilter bed temperature for compliance with PCWP MACT

A QA/QC Plan has been put in place. The mill has developed a Startup, Shutdown, Malfunction (SSM) Plan as required for the Energy Cells, Dryers, Press, and Biofilter.

The biofilter bed temperature is averaged on a 24 hour basis and has to maintain 75% data availability in accordance with Subpart DDDD

Semiannual reports will be submitted per the PCWP MACT.



<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 3820-00-10	<b>List all emission units associated with this control device.</b> Energy Cell No. 1	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Multiclone</b></div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		80.0%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> 29 MMBTU/hr		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> <b>No</b> If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Pressure drop across the Multiclone		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 3920-00-10	<b>List all emission units associated with this control device.</b> Energy Cell No. 2	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/1996
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Multiclone</b></div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		80.0%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> 29 MMBTU/hr		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Pressure drop across the Multiclone		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> Paint Booth Filters	<b>List all emission units associated with this control device.</b> Paint Booths 1, 2 and 3	
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Installation date:</b> MM/DD/2002
<b>Type of Air Pollution Control Device:</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input checked="" type="checkbox"/> <b>Other (describe)</b> Woven craft paper/fabric filters</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		98.5%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b> <div style="height: 100px;"></div>		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b> Airflow / Pressure Drop indicates needed filter change <div style="height: 100px;"></div>		

## ATTACHMENT G - Air Pollution Control Device Form

**Control device ID number:**  
4110-00-10

**List all emission units associated with this control device.**  
Energy Cells 1 and 2; Dryers 1, 2, 3 and 4; and OSB Press

**Manufacturer:**  
United McGill Corporation

**Model number:**  
3-400 W

**Installation date:**  
MM/DD/1996

**Type of Air Pollution Control Device:**

☐ Baghouse/Fabric Filter      ☐ Venturi Scrubber      ☐ Multiclone  
☐ Carbon Bed Adsorber      ☐ Packed Tower Scrubber      ☐ Single Cyclone  
☐ Carbon Drum(s)      ☐ Other Wet Scrubber      ☐ Cyclone Bank  
☐ Catalytic Incinerator      ☐ Condenser      ☐ Settling Chamber  
☐ Thermal Incinerator      ☐ Flare      ☐ Other (describe) \_\_\_\_\_  
☒ **Wet Plate Electrostatic Precipitator**      ☐ Dry Plate Electrostatic Precipitator

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		80.0%
Condensable Organics		80.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Max: 180,000 ACFM at 250 degrees F  
 Particulate Emissions: 0.00415 grains / ACF, 6.4 lbs/hr  
 Pressure Drop: 2.5 in H<sub>2</sub>O  
 25% moisture in gas stream  
 Gas residence time: 3.49 seconds

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

CAM Plan requirements were addressed in the October 2006 Title V Renewal Application

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Wet ESP voltage is measured using a voltmeter. An excursion triggers an inspection and corrective action.  
 The parameter is recorded as a 6-minute average.

## ATTACHMENT G - Air Pollution Control Device Form

**Control device ID number:**  
4120-00-10

**List all emission units associated with this control device.**  
Energy Cells 1 and 2; Dryers 1, 2, 3 and 4; and OSB Press

**Manufacturer:**  
United McGill Corporation

**Model number:**  
3-400 W

**Installation date:**  
MM/DD/1996

**Type of Air Pollution Control Device:**

☐ Baghouse/Fabric Filter      ☐ Venturi Scrubber      ☐ Multiclone  
☐ Carbon Bed Adsorber      ☐ Packed Tower Scrubber      ☐ Single Cyclone  
☐ Carbon Drum(s)      ☐ Other Wet Scrubber      ☐ Cyclone Bank  
☐ Catalytic Incinerator      ☐ Condenser      ☐ Settling Chamber  
☐ Thermal Incinerator      ☐ Flare      ☐ Other (describe) \_\_\_\_\_  
☒ **Wet Plate Electrostatic Precipitator**      ☐ Dry Plate Electrostatic Precipitator

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter (PM)		80.0%
Condensable Organics		80.0%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**

Max: 180,000 ACFM at 250 degrees F  
 Particulate Emissions: 0.00415 grains / ACF, 6.4 lbs/hr  
 Pressure Drop: 2.5 in H<sub>2</sub>O  
 25% moisture in gas stream  
 Gas residence time: 3.49 seconds

**Is this device subject to the CAM requirements of 40 C.F.R. 64?** ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

CAM Plan requirements were addressed in the October 2006 Title V Renewal Application

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**

Wet ESP voltage is measured using a voltmeter. An excursion triggers an inspection and corrective action.  
 The parameter is recorded as a 6-minute average.

## **APPENDIX A**

### **ROUTINE CONTROL DEVICE MAINTENANCE EXEMPTION**

#### **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016  
Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017



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west virginia department of environmental protection

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Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: (304) 926-0499  
Fax: (304) 926-0479

Jim Justice, Governor  
Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

January 31, 2017

**CERTIFIED MAIL**

Article # 91 7108 2133 3936 1554 8832

Weyerhaeuser NR Company  
c/o Jesse Merica, Mill Manager  
3601 Gauley Turnpike  
Heaters, WV 26627

RE: PCWP MACT  
Maintenance Exemption Approval  
Sutton OSB Facility  
Plant ID# 007-00016

Dear Mr. Merica:

Your company's request for a routine control device maintenance exemption, per 40 CFR 63.2251, from certain requirements of the Plywood and Composite Wood Products (PCWP) MACT (40 CFR 63, subpart DDDD) was received by the West Virginia Division of Air Quality (DAQ) on January 9, 2017. DAQ received sufficient information to make a final review of your request and **grants** the routine control device maintenance exemption (RCDME) for the biofilter at the Sutton OSB facility subject to the following:

- The exemption allows process units subject to the Plywood and Composite Wood Products MACT to operate while the biofilter is offline for routine maintenance. But, for each process unit, only up to 3% of annual operating hours may be during periods when the biofilter is offline for routine maintenance. The process units subject to PCWP MACT compliance options and to which the exemption applies include each dryer (1-4), and the press.
- For each of the aforementioned process units the facility must keep a daily record of any start-up, any shut-down, total hours operated, and hours operated while the biofilter is offline for routine maintenance. And, as regards the biofilter, the facility must keep daily records of any start-up, any shut-down, total hours operated, and total hours off-line for routine maintenance.
- In order to minimize emissions when the biofilter is offline for routine maintenance, the facility shall (1) continue to use the wet ESP to control emissions from the process units subject to PCWP MACT compliance options, and (2) refrain from using the facility's

Promoting a healthy environment.

emergency generator, except during actual emergency situations (i.e. power outages, etc.).

- Prior to any routine biofilter maintenance being performed under this exemption, the facility will produce and subsequently follow a standard operating procedure (SOP) for enacting the above requirements. This SOP must be submitted as part of the next Rule 13 permit modification sought for the Sutton OSB facility located in Heaters, WV.
- As a minimization strategy, the facility shall to the greatest extent practically possible perform routine biofilter maintenance during periods when the press and dryers are already offline (not producing product) for maintenance or other reasons.

Also, please be aware that this exemption only applies to the units at the facility affected by the PCWP MACT requirements. If you operate with the biofilter offline and that causes some other rule, permit limit, or requirement to be violated, the exemption does not cover that. If you have any questions or comments, you may contact Richard "Eric" Ray by phone at (304) 926-0499 x 1382 or by e-mail at [Richard.Eric.Ray@wv.gov](mailto:Richard.Eric.Ray@wv.gov).

Sincerely,



William F. Durham  
Director

cc: David Campbell  
Associate Director for the Office of Permits & State Programs  
USEPA Region III (3AP10)  
1650 Arch Street  
Philadelphia, PA 19103

Cristina Fernandez  
Director - Air Protection Division  
USEPA Region III (3AP00)  
1650 Arch Street  
Philadelphia, PA 19103-2029





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**Reliable Methods**

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Department / Functional Area/ Process Area:

**MW/EMS/DEE/CR**

Procedure Number:

**8000-198-E**

Procedure Title: **MW-EMS**

**Emergency Generator Use  
during Biofilter Routine  
Maintenance**

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Revision Level	Revision /Review Date:	Page Number
<b>Approved</b>	<b>03/10/2017</b>	<b>1 of 2</b>

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**1.0 OBJECTIVE**

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**Emergency Generator Use during Biofilter Routine Maintenance**

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**2.0 GENERAL**

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**REFERENCE:** [Title V Air Permit](#)

**RESOURCE:** Tim Sagraves/John Osborne/Matthew Rutherford/Ed Williams/Tim Butcher/Pod Miller

**GENERAL INFORMATION:**

The facility has a Routine Control Device Maintenance Exemption (RCDME) that allows the process units (GTS Energy Cells, Dryers and Press) to operate while the Biofilter is offline for routine maintenance. Only up to 3% of annual operating hours may be during periods when the Biofilter is offline for routine maintenance. In order to minimize emissions when the Biofilter is offline for routine maintenance, (1) the WESP shall continue to operate and (2) refrain from using the emergency generator, except during actual emergency situations (i.e. power outages, etc.).

**PRE-REQUISITE TRAINING:**

**TOOLS AND EQUIPMENT:**

**REVIEWED BY:**

Please refer to hard copy for “Reviewed By” and actual changes and updates.

**(Needs to be reviewed by the Control Room Operators, DEE and Maintenance)**



## Reliable Methods

Department / Functional Area/ Process Area:

**MW/EMS/DEE/CR**

Procedure Number:

**8000-198-E**

Procedure Title: **MW-EMS**

**Emergency Generator Use  
during Biofilter Routine  
Maintenance**

Revision Level  
**Approved**

Revision /Review Date:  
**03/10/2017**

Page Number  
**2 of 2**

### 3.0 SAFETY

Job Safety Analysis	Safe Work Procedures
1. Normal Mill Operations	1. Normal PPE

### 4.0 OPERATION

No.	Step	Notes / Comments
	<b>GENERAL PROCEDURES</b>	
1.	Prior to Biofilter Shutdown for routine maintenance the emergency generator will be checked to ensure it is not running.	Under our Routine Control Device Maintenance Exemption (RCDME) for the Biofilter air permit states, in order to reduce our emissions we will not run emergency generator the time frame the Biofilter is offline.
2.	Emergency generator will be placed in an off state to prevent it from performing a weekly run status check.	If routine maintenance is scheduled during a Monday morning, the weekly run cycle for the emergency generator will be postponed.
3.	CR operator will make note of this on the Mill Status Report.	
4.	At the end of the Biofilter routine maintenance and once the Biofilter is back online, CR will notify Maintenance that emergency generator can be placed back to a ready state.	
5.	This will be documented on the Mill Status Report.	
6.	During this time frame it will be documented that the emergency generator was not used during the routine maintenance on the Biofilter.	Hour meter log checks on PMs and Mill Status Report.

## REVISION HISTORY

This document was originally issued on March 10, 2017.

DATE	DESCRIPTION OF CHANGE	AUTHORIZATION
6/19/2017	Annual Review	J. Osborne

## **APPENDIX B**

### **EMISSION CALCULATIONS**

#### **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016**  
**Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017

**Table B-1: Facility-Wide Potential Emission Rates of Regulated Compounds**

Emission Point ID	Emission Source ID	Regulated Compounds								HAPs (tpy)
		CO (tpy)	NO <sub>x</sub> (tpy)	TSP (tpy)	PM <sub>10</sub> (tpy)	PM <sub>2.5</sub> (tpy)	SO <sub>2</sub> (tpy)	VOC (tpy)	Lead (tpy)	
1	Flaking and screening system	--	--	0.04	0.04	0.02	--	0.05	--	--
3	Dry flake area	--	--	1.45	1.45	0.65	--	3.57	--	--
4	Mat trim system	--	--	2.41	2.41	1.08	--	3.59	--	--
5	Rough trim system	--	--	2.51	2.51	1.13	--	3.74	--	--
6	Tongue and Groove and sawing system	--	--	2.72	2.72	1.22	--	4.02	--	--
7	Sander dust system	--	--	0.96	0.96	0.43	--	1.72	--	--
9	Dry waste system	--	--	3.74	3.74	1.69	--	5.58	--	--
10 & 11	EC-1 idle run multiclone & EC-2 idle run multiclone <sup>2</sup>	8.40	11.20	9.52	9.52	7.28	1.40	12.75	0.013	3.79
23	Main Stack	96.3	221.6	79.4	79.4	79.4	17.9	117.1	0.03	32.3
21	RCDME (Biofilter Offline)	--	--	--	--	--	--	4.36	--	1.78
24	Press system bypass	2.11	--	0.34	0.34	0.34	--	5.62	--	5.69
27	Emergency generator	0.28	1.24	0.04	0.03	0.03	0.006	0.03	--	4.0E-05
31	Liquid phenolic resin tank 1	--	--	--	--	--	--	0.002	--	5.0E-06
32	Liquid phenolic resin tank 2	--	--	--	--	--	--	0.002	--	5.0E-06
33	Liquid phenolic resin tank 3	--	--	--	--	--	--	0.002	--	5.0E-06
34	Liquid phenolic resin tank 4	--	--	--	--	--	--	0.002	--	5.0E-06
35	MDI Tank 1	--	--	--	--	--	--	2.0E-07	--	2.0E-07
36	MDI Tank 2	--	--	--	--	--	--	2.0E-07	--	2.0E-07
37	Wax Tank 1	--	--	--	--	--	--	0.01	--	0.01
38	Wax Tank 2	--	--	--	--	--	--	0.01	--	0.01
39	Wax/resin tank heater	1.29	1.54	0.12	0.12	0.12	0.01	0.10	0.00001	0.0012
40 & 41	Paint Booth 1	--	--	0.57	0.57	0.57	--	--	--	--
42 & 43	Paint Booth 2	--	--	0.57	0.57	0.57	--	--	--	--
44 & 45	Paint Booth 3	--	--	0.57	0.57	0.57	--	--	--	--
46	Liquid phenolic resin tank 5	--	--	--	--	--	--	0.002	--	5.0E-06
47	Liquid phenolic resin tank 6	--	--	--	--	--	--	0.002	--	5.0E-06
Total Potential Emissions Estimated (tpy)		100.0	224.4	95.4	95.4	87.8	17.9	149.6	0.03	39.8
Title V Allowable Emissions (tpy)		229.0	249.0	95.4	95.4	87.8	17.9	249.0	0.03	39.8

2. Idle Run emissions are shown for completeness, but are not included in the Facility-wide totals.

PSD Analysis for Title V Allowable Limits

Estimated NO <sub>x</sub> Emissions from Main Stack			
#23:	221.6	tpy	
Other:	2.77	tpy	
NO <sub>x</sub> limit to avoid PSD:	249	tpy	
Total NO <sub>x</sub> allowed from Main Stack:	246.23	tpy	
PSD Compliance Margin	24.59	tpy	

Estimated VOC Emissions from 1-9, 21, & 23:			
	143.8	tpy	
Other:	5.8	tpy	
VOC limit to avoid PSD:	249	tpy	
Total VOC allowed 1-9, 21, & 23: :	243.2	tpy	
PSD Compliance Margin	99.44	tpy	

Estimated CO Emissions from Main Stack			
#23:	96.3	tpy	
Other:	3.7	tpy	
CO limit to avoid PSD:	229	tpy	
Total CO allowed from Main Stack:	225.3	tpy	
PSD Compliance Margin	129.0	tpy	

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-2: Flaking and Screening**

**Emission Unit:**        **Flaking and Screening System (ID No. 1S)**  
Flaking and screening system contains 2 flakers, 27 conveyor pickups, 6 green screens and one hog and silk screen.

**Control Device:**     **Bagfilter (ID No. 4313-00-10)**

**Emission Point:**     **ID No. 1**

**Potential Process Throughput:**

Material Processing Rate:	100 lb/hr (green) 50 lb/hr (oven dry)
Dry/Green Wood Ratio:	0.5 lb/lb
Baghouse Control Efficiency <sup>3</sup> :	99.99%
Air Flow Rate:	65,450 ACFM
Operation:	8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	100 lb/hr	1	0.010	0.044
PM-10	100 lb/hr	1	0.010	0.044
PM-2.5	45 lb/hr	4	0.0045	0.0197
VOC	0.04392 lb/ODT	2	0.001	0.005

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling green southern pine chips as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
- 4 PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-3: Dry Flake Area**

**Emission Unit:**      **Dry Flake Area (ID No. 3S)**  
Dry flake area contains 4 dry bins, 17 conveyor pickups, 4 weigh belts, 4 blenders and 4 forming bins.

**Control Device:**    **Bagfilter (ID No. 4333-00-10)**

**Emission Point:**    **ID No. 3**

**Potential Process Throughput:**

Material Processing Rate:      3,300 lb/hr (oven dry)

Baghouse Control Efficiency<sup>3</sup>:    99.99%

Air Flow Rate:                    53,400 ACFM

Operation:                        8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	3,300 lb/hr	1	0.33	1.45
PM-10	3,300 lb/hr	1	0.33	1.45
PM-2.5	1,485 lb/hr	4	0.15	0.65
VOC	0.0494 lb/ODT	2	0.08	0.36

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling green southern pine chips as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22. Then, the formaldehyde factor from Table 2A to Appendix B of 40 CFR 63 Subpart DDDD; Blending and Forming Operations - OSB, is converted to ODT using 42 lb/cu.ft. and added in.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
4. PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-4: Mat Trim System**

**Emission Unit: Mat Trim System (ID No. 4S)**

Mat trim system contains 2 mat side trim saws, 2 flying end saws and 6 material collection hoppers.

**Control Device: Bagfilter (ID No. 4345-00-10)**

**Emission Point: ID No. 4**

**Potential Process Throughput:**

Material Processing Rate: 5,500 lb/hr (oven dry)  
Baghouse Control Efficiency<sup>3</sup>: 99.99%  
Air Flow Rate: 43,100 ACFM  
Operation: 8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	5,500 lb/hr	1	0.55	2.41
PM-10	5,500 lb/hr	1	0.55	2.41
PM-2.5	2,475 lb/hr	4	0.25	1.08
VOC	0.0298 lb/ODT	2	0.08	0.36

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling dry southern pine material as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22. Then, the formaldehyde factor from Table 2A to Appendix B of 40 CFR 63 Subpart DDDD; Finishing Saws, is converted to ODT using 42 lb/cu.ft. and added in.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
4. PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-5: Rough Trim System**

**Emission Unit:**      **Rough Trim System (ID No. 5S)**  
Rough trim system contains 4 rough trim and hogging heads, material collection screw and 5 press pit floor sweeps.

**Control Device:**    **Bagfilter (ID No. 4353-00-10)**

**Emission Point:**    **ID No. 5**

**Potential Process Throughput:**

Material Processing Rate:            5,730 lb/hr (oven dry)

Baghouse Contol Efficiency<sup>3</sup>:      99.99%

Air Flow Rate:                        21,200 ACFM

Operation:                              8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	5,730 lb/hr	1	0.57	2.51
PM-10	5,730 lb/hr	1	0.57	2.51
PM-2.5	2,579 lb/hr	4	0.26	1.13
VOC	0.0298 lb/ODT	2	0.09	0.37

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling dry southern pine material as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22. Then, the formaldehyde factor from Table 2A to Appendix B of 40 CFR 63 Subpart DDDD; Finishing Saws, is converted to ODT using 42 lb/cu.ft. and added in.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
4. PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.



**Weyerhaeuser Company - Heaters, West Virginia****Plant ID No. 007-00016****Table B-6: Tongue & Groove and Sawing System****Emission Unit: Arch/Notch and Tongue & Groove and Sawing System (ID No. 6S)**

Arch/Notch machine cutter and Tongue & Groove and Sawing system contains 2 four-head T&G systems, 1 two-head T&G machine, finish cross cut (2 hogging heads & 2 saws) and finish ripcut (2 hogging heads & 2 saws), 1 Arch & Notch machine cutter (3 small notch cutting heads)

**Control Device: Bagfilter (ID No. 4363-00-10)****Emission Point: ID No. 6****Potential Process Throughput:**

Material Processing Rate: 6,200 lb/hr (oven dry)

Baghouse Control Efficiency<sup>3</sup>: 99.99%

Air Flow Rate: 30,970 ACFM

Operation: 8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	6,200 lb/hr	1	0.62	2.72
PM-10	6,200 lb/hr	1	0.62	2.72
PM-2.5	2,790 lb/hr	4	0.28	1.22
VOC	0.0298 lb/ODT	2	0.09	0.40

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling dry southern pine material as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22. Then, the formaldehyde factor from Table 2A to Appendix B of 40 CFR 63 Subpart DDDD; Finishing Saws, is converted to ODT using 42 lb/cu.ft. and added in.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
4. PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-7: Sander Dust System**

**Emission Unit:**        **Sander Dust System (ID No. 7S)**  
                                 Sander dust system contains a 6-head wide belt sander.  
**Control Device:**    **Bagfilter (ID No. 4374-11-10)**  
**Emission Point:**    **ID No. 7**

**Potential Process Throughput:**

Material Processing Rate:        2,200 lb/hr (oven dry)  
Baghouse Contol Efficiency<sup>3</sup>:   99.99%  
Air Flow Rate:                    44,800 ACFM  
Operation:                        8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	2,200 lb/hr	1	0.22	0.96
PM-10	2,200 lb/hr	1	0.22	0.96
PM-2.5	990 lb/hr	4	0.10	0.43
VOC	0.0357 lb/ODT	2	0.04	0.17

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling dry southern pine material as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22. Then, the formaldehyde factor from Table 2A to Appendix B of 40 CFR 63 Subpart DDDD; Finishing Sanders, is converted to ODT using 42 lb/cu.ft. and added in.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
4. PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-8: Dry Waste System**

**Emission Unit:**      **Dry Waste System (ID No. 9S)**  
Dry waste system pneumatically relays material through two cyclones to the dry fuel silo from systems 3, 4, 5 and 6 to the sander dust silo from system 7.

**Control Device:**    **Bagfilter (ID No. 4397-00-10)**

**Emission Point:**    **ID No. 9**

**Potential Process Throughput:**

Material Processing Rate:      8,550 lb/hr (oven dry)

Baghouse Control Efficiency<sup>3</sup>:    99.99%

Air Flow Rate:                  13,200 ACFM

Operation:                        8,760 hr/yr

**Potential Emissions Summary:**

Criteria Compounds	Emission Factor	Reference	Controlled Emissions	
			(lb/hr)	(ton/yr)
PM	8,550 lb/hr	1	0.85	3.74
PM-10	8,550 lb/hr	1	0.85	3.74
PM-2.5	3,848 lb/hr	4	0.38	1.69
VOC	0.0298 lb/ODT	2	0.13	0.56

**References:**

1. Emission factor is potential material process rate.
2. VOC emissions are based on one-fifth of the VOC emission factor for cyclones handling dry southern pine material as referenced in Weyerhaeuser Title V Cross Functional Team Bulletin #3.g (Rev), 3/19/07. VOC factor is assumed "as carbon", and is converted to propane by multiplying by 1.22. Then, the formaldehyde factor from Table 2A to Appendix B of 40 CFR 63 Subpart DDDD; Finishing Saws, is converted to ODT using 42 lb/cu.ft. and added in.
3. Baghouse control efficiency is based on original air permit application of July 1994, which states the PM collection efficiency of the baghouse is 99.9981%.
4. PM-2.5 emission factor is estimated as 45% of the PM-10 emission factor based on the cumulative weight percentages of particulates from a sander controlled by a cyclone and bagfilter as listed in AP-42, Appendix B.1, Section 10.5.

**Table B-10: Energy Cells 1 & 2 (Idle Run)**

**Emission Unit:**     **Energy Cell No. 1 (ID No. 3800-00-10 and 3816-00-11) - Idle Run Mode and**  
                               29 MMBtu/hr auxiliary NG burner used mainly during start-up.  
                               **Energy Cell No. 2 (ID No. 3900-00-11 and 3916-00-11) - Idle Run Mode**  
                               29 MMBtu/hr auxiliary NG burner used mainly during start-up.

**Control Device:**   **Multiclone (ID No. 3820-00-10) and**  
                               **Multiclone (ID No. 3920-00-10)**

**Emission Points:**   **ID Nos. 10 and 11**

**Potential Process Throughput:**

Combined Wood Combustion:	10,000 lb/hr (wet basis)
Maximum Combined Heat Input (Idle Run):	40 MMBtu/hr
Dry/Green Wood Ratio:	0.5 lb/lb
Combined Idle Mode Operation:	2800 hr/yr
Particulate Control:	80.0%

**Potential Emissions Summary: <sup>1</sup>**

Criteria Compounds	Emission Factor	Control Efficiency	Reference	Controlled Emissions		Uncontrolled Emissions	
				(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
CO	0.15 lb/MMBtu	-	2	6.00	8.40	6.00	8.40
NO <sub>x</sub>	0.2 lb/MMBtu	-	2	8.00	11.20	8.00	11.20
PM	0.85 lb/MMBtu	80%	2	6.80	9.52	34.00	47.60
PM-10	0.85 lb/MMBtu	80%	2	6.80	9.52	34.00	47.60
PM-2.5	0.65 lb/MMBtu	80%	6	5.20	7.28	26.00	36.40
SO <sub>2</sub>	0.025 lb/MMBtu	-	3	1.00	1.40	1.00	1.40
VOC	2.28E-01 lb/MMBtu	-	2	9.11	12.75	9.11	12.75
Lead	9.60E-03 lb/ton wood	80%	4	0.01	0.01	0.05	0.07

Hazardous Air Pollutant	Emission Factor	Control Efficiency	Reference	Controlled Emissions		Uncontrolled Emissions	
				(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Acetaldehyde	7.02E-03 lb/ton wood	-	2	3.51E-02	4.91E-02	3.51E-02	4.91E-02
Acetophenone	3.33E-05 lb/ton wood	-	5	1.67E-04	2.33E-04	1.67E-04	2.33E-04
Acrolein	5.85E-02 lb/ton wood	-	2	2.93E-01	4.10E-01	2.93E-01	4.10E-01
Antimony	6.75E-05 lb/ton wood	80%	5	6.75E-05	9.45E-05	3.38E-04	4.73E-04
Arsenic	3.33E-04 lb/ton wood	80%	5	3.33E-04	4.66E-04	1.67E-03	2.33E-03
Benzene	9.00E-02 lb/ton wood	-	5	0.45	0.63	0.45	0.63
Beryllium	1.10E-06 lb/MMBtu	80%	3	8.80E-06	1.23E-05	4.40E-05	6.16E-05
Bis(2-ethylhexylphthalate)	4.70E-08 lb/MMBtu	-	3	1.88E-06	2.63E-06	1.88E-06	2.63E-06
Cadmium	1.26E-04 lb/ton wood	80%	5	1.26E-04	1.76E-04	6.30E-04	8.82E-04
Carbon disulfide	1.17E-03 lb/ton wood	-	5	5.85E-03	8.19E-03	5.85E-03	8.19E-03
Carbon tetrachloride	2.88E-06 lb/ton wood	-	5	1.44E-05	2.02E-05	1.44E-05	2.02E-05
Chlorine	7.90E-04 lb/MMBtu	-	3	3.16E-02	4.42E-02	3.16E-02	4.42E-02
Chlorobenzene	3.30E-05 lb/MMBtu	-	3	1.32E-03	1.85E-03	1.32E-03	1.85E-03
Chloroform	4.23E-04 lb/ton wood	-	5	2.12E-03	2.96E-03	2.12E-03	2.96E-03
Chromium	2.10E-05 lb/MMBtu	80%	3	1.68E-04	2.35E-04	8.40E-04	1.18E-03
Cobalt	1.35E-03 lb/ton wood	80%	5	1.35E-03	1.89E-03	6.75E-03	9.45E-03
Cumene	1.62E-04 lb/ton wood	-	5	8.10E-04	1.13E-03	8.10E-04	1.13E-03
Dinitrophenol, 2,4-	1.80E-07 lb/MMBtu	-	3	7.20E-06	1.01E-05	7.20E-06	1.01E-05
Dioxin (2,3,7,8-TCDD)	7.94E-11 lb/BD ton	80%	4	3.97E-11	5.56E-11	1.99E-10	2.78E-10
Ethylbenzene	3.51E-05 lb/ton wood	-	5	1.76E-04	2.46E-04	1.76E-04	2.46E-04
Formaldehyde	9.90E-02 lb/ton wood	-	2	4.95E-01	6.93E-01	4.95E-01	6.93E-01
Hexane	4.95E-03 lb/ton wood	-	5	2.48E-02	3.47E-02	2.48E-02	3.47E-02
Hydrogen chloride	4.32E-02 lb/ton wood	-	5	0.22	0.30	0.22	0.30
Lead	9.60E-03 lb/ton wood	80%	4	0.01	0.01	0.05	0.07
Manganese	9.00E-02 lb/ton wood	80%	5	9.00E-02	1.26E-01	4.50E-01	6.30E-01

**Table B-10: Energy Cells 1 & 2 (Idle Run)**

**Emission Unit:**     **Energy Cell No. 1 (ID No. 3800-00-10 and 3816-00-11) - Idle Run Mode and**  
                               29 MMBtu/hr auxiliary NG burner used mainly during start-up.  
                               **Energy Cell No. 2 (ID No. 3900-00-11 and 3916-00-11) - Idle Run Mode**  
                               29 MMBtu/hr auxiliary NG burner used mainly during start-up.

**Control Device:**   **Multiclone (ID No. 3820-00-10) and**  
                               **Multiclone (ID No. 3920-00-10)**

**Emission Points:**   **ID Nos. 10 and 11**

**Potential Emissions Summary (continued):**

Hazardous Air Pollutant	Emission Factor	Control Efficiency	Reference	Controlled Emissions		Uncontrolled Emissions	
				(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
Mercury	3.24E-04 lb/ton wood	-	5	1.62E-03	2.27E-03	1.62E-03	2.27E-03
Methanol	1.35E-02 lb/ton wood	-	2	6.75E-02	9.45E-02	6.75E-02	9.45E-02
Methyl chloride	8.82E-04 lb/ton wood	-	5	4.41E-03	6.17E-03	4.41E-03	6.17E-03
Methyl chloroform	3.10E-05 lb/MMBtu	-	3	1.24E-03	1.74E-03	1.24E-03	1.74E-03
Methyl ethyl ketone	1.08E-04 lb/ton wood	-	5	5.40E-04	7.56E-04	5.40E-04	7.56E-04
Methyl isobutyl ketone	7.74E-03 lb/ton wood	-	5	3.87E-02	5.42E-02	3.87E-02	5.42E-02
Methylene chloride	1.35E-02 lb/ton wood	-	5	0.07	0.09	0.07	0.09
Naphthalene	8.46E-02 lb/ton wood	-	5	0.42	0.59	0.42	0.59
Nickel	5.04E-03 lb/ton wood	80%	5	5.04E-03	7.06E-03	2.52E-02	3.53E-02
Nitrophenol, 4-	1.10E-07 lb/MMBtu	-	3	4.40E-06	6.16E-06	4.40E-06	6.16E-06
Pentachlorophenol	5.10E-08 lb/MMBtu	-	3	2.04E-06	2.86E-06	2.04E-06	2.86E-06
Phenol	3.69E-04 lb/ton wood	-	2	1.85E-03	2.58E-03	1.85E-03	2.58E-03
POM	8.47E-02 lb/ton wood	-	5	0.42	0.59	0.42	0.59
Propionaldehyde	6.10E-05 lb/MMBtu	-	3	2.44E-03	3.42E-03	2.44E-03	3.42E-03
Selenium	5.04E-05 lb/ton wood	80%	5	5.04E-05	7.06E-05	2.52E-04	3.53E-04
Styrene	1.35E-04 lb/ton wood	-	5	6.75E-04	9.45E-04	6.75E-04	9.45E-04
Tetrachloroethylene	1.53E-03 lb/ton wood	-	5	7.65E-03	1.07E-02	7.65E-03	1.07E-02
Toluene	8.10E-04 lb/ton wood	-	5	4.05E-03	5.67E-03	4.05E-03	5.67E-03
Trichloroethylene	6.84E-05 lb/ton wood	-	5	3.42E-04	4.79E-04	3.42E-04	4.79E-04
Trichlorophenol, 2,4,6-	2.20E-08 lb/MMBtu	-	3	8.80E-07	1.23E-06	8.80E-07	1.23E-06
Vinyl chloride	1.80E-05 lb/MMBtu	-	3	7.20E-04	1.01E-03	7.20E-04	1.01E-03
Xylenes	9.36E-05 lb/ton wood	-	5	4.68E-04	6.55E-04	4.68E-04	6.55E-04
Total MACT HAP	- -	-	-	0.89	1.25	0.89	1.25
Total HAP	- -	-	-	2.71	3.79	3.14	4.39

**References:**

1. Idle Run emissions are shown for completeness, but are not included in the facility-wide totals.
2. Emission factor from vendor data as specified by air permit application filed November 1994. VOC factor is assumed as VOC "as carbon" and is converted to propane by multiplying by 1.22. In addition, 100% formaldehyde and 50% methanol are added into the VOC factor.
3. Reportable Compound Estimating Guide OSB Mills, 2002, prepared by Weyerhaeuser Environmental Technology and Science.
4. Emission factor represents median or average uncontrolled value.  
Emission factor from Weyerhaeuser Title V Cross Functional Team Bulletin #32, 12/13/94.
5. Emission factor from AP-42, Section 1.6, September 2003.
6. PM-2.5 emission factor is estimated as 77% of the PM emission factor based on the uncontrolled particulate emission factors in AP-42, Section 1.6, September 2003.

**Table B-11: Main Stack**

**Emission Unit:** OSB Press (ID No. 4700-00-10);  
Energy Cell 1 (ID Nos. 3800-00-10 and 3816-00-11);  
Energy Cell 2 (ID Nos. 3900-00-10 and 3916-00-11); and  
Dryer Nos. 1, 2, 3, and 4 (ID Nos. 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11)

**Control Device:** Wet Electrostatic Precipitator Nos. 1 and 2 (ID No. 4110-00-10 and 4120-00-10)  
Biofilter (ID Nos. 4800-00-10)

**Emission Point:** ID No. 23

**Main Stack (ID No. 23) Potential Emissions Summary:**

Criteria Compound (ton/yr)	Energy Cells - Wood Combustion	Wet ESP Stack Test	RCO Burners Removed	Main Stack (ID No. 23) Uncontrolled Emission Rate <sup>1</sup>
CO <sup>2</sup>	-	96.31	0.00	96.3 tpy
NO <sub>x</sub>	-	221.64	0.00	221.6 tpy
PM <sup>5</sup>	-	79.38	0.00	79.4 tpy
PM-10 <sup>5</sup>	-	79.38	0.00	79.4 tpy
PM-2.5 <sup>5</sup>	-	79.38	-	79.4 tpy
SO <sub>2</sub>	-	17.91	0.00	17.9 tpy
Lead	-	0.03	0.00	0.03 tpy
VOC (as propane)	-	113.08	0.00	113.1 tpy
VOC (as WPP1)	-	145.49	-	145.5 tpy
				Controlled Emission Rate <sup>1</sup>
VOC (as propane)	-	104.63	-	104.6 tpy
VOC (as WPP1)	-	117.14	-	117.1 tpy

Minimum RCO Control Efficiency: <sup>4</sup> 0.00%

Minimum Biofilter Control For Methanol 90.00%

**Main Stack (ID No. 23) Potential Emissions Summary (continued):**

Hazardous Air Pollutant	Energy Cells - Wood Combustion (lb/hr)	Wet ESP Stack Test (lb/hr)	RCO Burners (lb/hr)	Main Stack (ID No. 21) Uncontrolled Emission Rate <sup>1</sup>		Main Stack (ID No. 21) Controlled Emission Rate <sup>1</sup>	
				(lb/hr)	(tpy)	(lb/hr)	(tpy)
Acetaldehyde	-	2.40	-	2.40	4.89	2.40	4.89
Acetophenone	1.37E-03	-	-	1.37E-03	6.01E-03	1.37E-03	6.01E-03
Acrolein	-	0.93	-	0.93	1.21	0.93	1.21
Antimony	5.56E-04	-	-	5.56E-04	2.43E-03	5.56E-04	2.43E-03
Arsenic	-	0.00	0.00	9.95E-04	2.33E-03	9.95E-04	2.33E-03
Benzene	-	0.07	0.00	6.53E-02	1.12E-01	6.53E-02	1.12E-01
Beryllium	-	0.00	0.00	3.46E-05	5.85E-05	3.46E-05	5.85E-05
Bis(2-ethylhexyl-phthalate)	1.65E-05	-	-	1.65E-05	7.21E-05	1.65E-05	7.21E-05
Cadmium	-	0.00	0.00	2.28E-03	4.53E-03	2.28E-03	4.53E-03
Carbon disulfide	4.82E-02	-	-	4.82E-02	2.11E-01	4.82E-02	2.11E-01
Carbon tetrachloride	1.19E-04	-	-	1.19E-04	5.19E-04	1.19E-04	5.19E-04
Chlorine	-	0.20	-	1.99E-01	3.80E-01	1.99E-01	3.80E-01
Chlorobenzene	1.16E-02	-	-	1.16E-02	5.06E-02	1.16E-02	5.06E-02
Chloroform	1.74E-02	-	-	1.74E-02	7.63E-02	1.74E-02	7.63E-02
Chromium	-	0.01	0.00	1.10E-02	1.73E-02	1.10E-02	1.73E-02
Cobalt	1.11E-02	-	0.00	1.11E-02	4.87E-02	1.11E-02	4.87E-02
Cumene	-	4.74	-	4.74	5.67	4.74	5.67
Dinitrophenol, 2,4-	6.30E-05	-	-	6.30E-05	2.76E-04	6.30E-05	2.76E-04
Dioxin (2,3,7,8-TCDD)	3.27E-10	-	-	3.27E-10	1.43E-09	3.27E-10	1.43E-09
Ethylbenzene	1.45E-03	-	-	1.45E-03	6.33E-03	1.45E-03	6.33E-03
Formaldehyde <sup>3</sup>	-	4.55	0.00	4.56	10.32	4.56	10.32
Hexane	-	0.26	0.00	2.58E-01	7.31E-01	2.58E-01	7.31E-01
Hydrogen chloride	-	0.45	-	4.53E-01	1.06E+00	4.53E-01	1.06E+00
Lead	-	0.01	0.00	0.01	0.03	0.01	0.03
Manganese	-	0.18	0.00	1.83E-01	1.78E-01	1.83E-01	1.78E-01
Mercury	1.33E-02	-	0.00	1.34E-02	5.85E-02	1.34E-02	5.85E-02
Methanol	-	10.49	-	10.49	31.49	1.05	3.15
Methyl chloride	3.63E-02	-	-	3.63E-02	1.59E-01	3.63E-02	1.59E-01
Methyl chloroform	1.09E-02	-	-	1.09E-02	4.75E-02	1.09E-02	4.75E-02
Methyl ethyl ketone	4.45E-03	-	-	4.45E-03	1.95E-02	4.45E-03	1.95E-02

**Table B-11: Main Stack**

**Emission Unit:** OSB Press (ID No. 4700-00-10);  
Energy Cell 1 (ID Nos. 3800-00-10 and 3816-00-11);  
Energy Cell 2 (ID Nos. 3900-00-10 and 3916-00-11); and  
Dryer Nos. 1, 2, 3, and 4 (ID Nos. 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11)  
**Control Device:** Wet Electrostatic Precipitator Nos. 1 and 2 (ID No. 4110-00-10 and 4120-00-10)  
Biofilter (ID Nos. 4800-00-10)  
**Emission Point:** ID No. 23

Methyl isobutyl ketone	-	0.14	-	1.38E-01	2.83E-01	1.38E-01	2.83E-01
Methylene chloride (Dichloromethane)	-	0.14	-	1.44E-01	2.16E-01	1.44E-01	2.16E-01
Methylene diphenyl diisocyanate (MDI)	-	0.02	-	2.36E-02	2.70E-02	2.36E-02	2.70E-02
Naphthalene	-	0.00	0.00	4.01E-05	1.76E-04	4.01E-05	1.76E-04
Nickel	-	0.00	0.00	4.16E-03	7.25E-03	4.16E-03	7.25E-03
Nitrophenol, 4-	3.85E-05	-	-	3.85E-05	1.69E-04	3.85E-05	1.69E-04
Pentachlorophenol	1.79E-05	-	-	1.79E-05	7.82E-05	1.79E-05	7.82E-05
Phenol	-	0.00	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00
POM	-	0.00	0.00	2.20E-05	9.65E-05	2.20E-05	9.65E-05
Propionaldehyde	-	1.00	-	1.00	0.83	1.00	0.83
Selenium	4.15E-04	-	0.00	4.16E-04	1.82E-03	4.16E-04	1.82E-03
Styrene	5.56E-03	-	-	5.56E-03	2.43E-02	5.56E-03	2.43E-02
Tetrachloroethylene	6.30E-02	-	-	6.30E-02	2.76E-01	6.30E-02	2.76E-01

**Main Stack (ID No. 23) Potential Emissions Summary (continued):**

Hazardous Air Pollutant	Energy Cells - Wood Combustion (lb/hr)	Wet ESP Stack Test (lb/hr)	RCO Burners (lb/hr)	Main Stack (ID No. 21) Uncontrolled Emission Rate <sup>1</sup> (lb/hr) (tpy)		Main Stack (ID No. 23) Controlled Emission Rate <sup>1</sup> (lb/hr) (tpy)	
Toluene	-	0.16	0.00	1.62E-01	2.37E-01	1.62E-01	2.37E-01
Trichloroethylene	2.82E-03	-	-	2.82E-03	1.23E-02	2.82E-03	1.23E-02
Trichlorophenol, 2,4,6-	7.70E-06	-	-	7.70E-06	3.37E-05	7.70E-06	3.37E-05
Vinyl chloride	6.30E-03	-	-	6.30E-03	2.76E-02	6.30E-03	2.76E-02
Xylenes	-	0.45	-	4.48E-01	1.96E+00	4.48E-01	1.96E+00
Total MACT HAP	-	19.37	0.00	19.37	48.74	9.93	20.40
Total HAP	0.23	26.21	0.00	26.45	60.69	17.01	32.35

% MACT HAP  
41.85110901

**References:**

% HAP Control

53.30071298

1. Uncontrolled values are without Biofilter control; controlled values include the minimum Methanol control efficiency.
2. Due to uncertainty surrounding CO emissions from wood fired fuel cells and to ensure the mill remains a PSD minor source, the mill requests the CO facility-wide emissions limit to be set at 229 tpy, which allows a Main Stack (EP ID 23) permit limit of 225.4 tpy.
3. As shown historically at this mill, formaldehyde emissions vary in some scenarios; therefore, assume no control of formaldehyde.
4. RCO Control has been zeroed out since it has been replaced by a biofilter
5. PM values are after going through controls (Multiclones, Cyclonic Separators & WESPs)

**Table B-12: Wet ESP Stack Test**

**Emission Unit:** OSB Press (ID No. 4700-00-10);  
Energy Cell 1 (ID Nos. 3800-00-10 and 3816-00-11);  
Energy Cell 2 (ID Nos. 3900-00-10 and 3916-00-11); and  
Dryer Nos. 1, 2, 3, and 4 (ID Nos. 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11)  
**Control Device:** Wet Electrostatic Precipitator Nos. 1 and 2 (ID No. 4110-00-10 and 4120-00-10)  
Biofilter (ID Nos. 4800-00-10)  
**Emission Point:** ID No. 23

**Potential Process Throughput:**

Wood Flakes Dried:	56 ODT/hr
Average Annual OSB Production:	86 MSF/hr (3/8 inch)
Maximum Hourly OSB Production:	94 MSF/hr (3/8 inch)
Operational Hours:	8,760 hr/yr
Particulate Control:	80.0%

**Potential Emissions Summary:** <sup>1</sup>

Criteria Compounds	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Uncontrolled Emissions	
					(lb/hr)	(ton/yr)
CO	0.433 lb/MSF	2	0.256 lb/MSF	3	40.66	96.3
NO <sub>x</sub>	0.939 lb/MSF	2	0.588 lb/MSF	3	88.23	221.6
PM	0.369 lb/MSF	2	0.211 lb/MSF	3	34.68	79.4
PM-10	0.369 lb/MSF	2	0.211 lb/MSF	3	34.68	79.4
PM-2.5	0.369 lb/MSF	3	0.211 lb/MSF	3	34.68	79.4
SO2	0.130 lb/MSF	2	0.048 lb/MSF	3	12.26	17.9
VOC (as propane)	0.502 lb/MSF	2, 4	0.300 lb/MSF	3	47.17	113.1
VOC (as WPP1)	Uncontrolled VOCs as WPP1 - calculations below table			7, 8	59.09	145.5
					Controlled VOC Emissions	
VOC (as propane)	- lb/MSF	-	0.278 lb/MSF	7	23.89	104.6
VOC (as WPP1)	- lb/MSF	-	0.311 lb/MSF	7, 8	26.75	117.1

Hazardous Air Pollutant	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Uncontrolled Emissions	
					(lb/hr)	(ton/yr)
Acetaldehyde	2.55E-02 lb/MSF	2	1.30E-02 lb/MSF	3	2.401	4.892
Acrolein	9.88E-03 lb/MSF	2	3.21E-03 lb/MSF	3	0.929	1.210
Arsenic	1.05E-05 lb/MSF	2	6.09E-06 lb/MSF	3	0.001	0.002
Benzene	6.93E-04 lb/MSF	2	2.97E-04 lb/MSF	3	0.065	0.112
Beryllium	3.63E-07 lb/MSF	2	1.49E-07 lb/MSF	3	3.41E-05	5.62E-05
Cadmium	2.37E-05 lb/MSF	2	1.15E-05 lb/MSF	3	0.002	0.004
Chlorine	2.11E-03 lb/MSF	2	1.01E-03 lb/MSF	3	0.199	0.380
Chromium	1.16E-04 lb/MSF	2	4.52E-05 lb/MSF	3	0.011	0.017
Cumene	5.04E-02 lb/MSF	2	1.50E-02 lb/MSF	3	4.739	5.668
Dichloromethane	1.54E-03 lb/MSF	2	5.73E-04 lb/MSF	3	0.144	0.216
Formaldehyde	4.84E-02 lb/MSF	2	2.73E-02 lb/MSF	3	4.552	10.302
Hexane	2.74E-03 lb/MSF	2	1.00E-03 lb/MSF	3	0.258	0.378
Hydrogen Chloride	4.82E-03 lb/MSF	2	2.82E-03 lb/MSF	3	0.453	1.063
Lead	1.24E-04 lb/MSF	2	7.90E-05 lb/MSF	3	0.012	0.030
Manganese	1.95E-03 lb/MSF	2	4.72E-04 lb/MSF	3	0.183	0.178
MDI	2.51E-04 lb/MSF	2	7.18E-05 lb/MSF	3	0.024	0.027
Methanol	1.12E-01 lb/MSF	2	8.36E-02 lb/MSF	3	10.49	31.49



**Table B-12: Wet ESP Stack Test**

**Emission Unit:** OSB Press (ID No. 4700-00-10);  
Energy Cell 1 (ID Nos. 3800-00-10 and 3816-00-11);  
Energy Cell 2 (ID Nos. 3900-00-10 and 3916-00-11); and  
Dryer Nos. 1, 2, 3, and 4 (ID Nos. 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11)  
**Control Device:** Wet Electrostatic Precipitator Nos. 1 and 2 (ID No. 4110-00-10 and 4120-00-10)  
Biofilter (ID Nos. 4800-00-10)  
**Emission Point:** ID No. 23

**Potential Emissions Summary (continued): <sup>1</sup>**

Hazardous Air Pollutant	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Uncontrolled Emissions	
					(lb/hr)	(ton/yr)
Methyl isobutyl ketone	1.47E-03 lb/MSF	2	7.52E-04 lb/MSF	3	0.138	0.283
Naphthalene	2.29E-07 lb/ODT	5	2.29E-07 lb/ODT	5	1.28E-05	5.62E-05
Nickel	4.32E-05 lb/MSF	2	1.82E-05 lb/MSF	3	0.004	0.007
Phenol	0.00E+00 lb/MSF	6	0.00E+00 lb/MSF	6	0.000	0.000
POM	3.23E-07 lb/ODT	5	3.23E-07 lb/ODT	5	1.81E-05	7.92E-05
Propionaldehyde	1.06E-02 lb/MSF	2	2.21E-03 lb/MSF	3	0.999	0.831
Toluene	1.72E-03 lb/MSF	2	6.29E-04 lb/MSF	3	0.161	0.237
Xylenes	8.00E-03 lb/ODT	5	8.00E-03 lb/ODT	5	0.448	1.962
Total MACT HAP	- -	-	- -	-	19.37	48.72
Total HAP	- -	-	- -	-	26.21	59.29

Methanol 90% controlled based on Biofilter

Methanol Adjustment for VOC Calculation			Methanol 90% controlled based on Biofilter		
	Uncontrolled (lb/hr)	Controlled (lb/hr)		Uncontrolled (ton/yr)	Controlled (ton/yr)
Methanol (lb/hr):	10.49	1.05	Methanol (tpy):	31.49	3.15
Methanol as propane (lb/hr):	4.81	0.48	Methanol as propane (tpy):	14.43	1.44
Methanol Response Factor:	65%	65%		65%	65%
Methanol Adjustment as propane (lb/hr):	3.13	0.31	Methanol Adjustment as propane (tpy):	9.38	0.94
<b>Total WPP1 VOC(lb/hr)*:</b>	<b>59.1</b>	<b>48.60</b>	<b>Total WPP1 VOC(tpy)*:</b>	<b>145.5</b>	<b>117.14</b>
Total VOC as Propane (lb/hr):	47	44.36	Total VOC as Propane (tpy)	113	104.63
Total HAP (lb/hr)	26	16.77	Total HAP	59	30.95

**References:**

- Stack testing includes contributions from strand drying, direct wood-firing, and the press. Hourly emission rates are based on the Maximum Hourly OSB Production. Annual emission rates are based on the Average Annual OSB Production. Uncontrolled values are without biofilter control.
- Emission factor based on stack testing conducted on the Wet ESP. Emission factor represents the 95th % Confidence Level.
- Emission factor based on stack testing conducted on the Wet ESP. Emission factor represents the average of test runs.
- VOC emission testing was performed from 1997 through 2006; all results were converted to a propane basis. Per EPA's *Interim VOC Measurement Protocol for the Wood Products Industry - July 2007*, WPP1 VOC is calculated based on VOC as propane, plus formaldehyde and methanol emissions, with a methanol adjustment.
- Reportable Compound Estimating Guide OSB Mills, 2002, prepared by Weyerhaeuser Environmental Technology and Science. Emission factors for direct wood-fired OSB dryers.
- Phenol resulted in non-detect on all runs and the detection limit is less than 1 ppm.
- VOC annual emission factor based on stack testing cited in #3 adjusted for 90% Methanol DRE from Biofilter  
The emission factor represents the average of test runs conducted on WESP therefore VOC and Methanol were measured simultaneously.
- The WPP1 VOC factor was developed per EPA OTM-26 method, which takes the average as-carbon emission rate converted to propane by multiplying by 1.22, and then adjusts for formaldehyde, methanol, and non-VOC compounds.

**Table B-12: Routine Control Device Maintenance Exemption (RCDME)**

**Emission Unit:** OSB Press (ID No. 4700-00-10);  
Energy Cell 1 (ID Nos. 3800-00-10 and 3816-00-11);  
Energy Cell 2 (ID Nos. 3900-00-10 and 3916-00-11); and  
Dryer Nos. 1, 2, 3, and 4 (ID Nos. 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11)  
**Control Device:** Wet Electrostatic Precipitator Nos. 1 and 2 (ID No. 4110-00-10 and 4120-00-10)  
**Emission Point:** ID No. 21

**Potential Process Throughput:**

Wood Flakes Dried:	56 ODT/hr
Average Annual OSB Production:	86 MSF/hr (3/8 inch)
Maximum Hourly OSB Production:	94 MSF/hr (3/8 inch)
Operational Hours:	263 hr/yr

**Potential Emissions Summary: <sup>1</sup>**

Criteria Compounds	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Uncontrolled Emissions	
					(lb/hr)	(ton/yr)
VOC (as propane)	0.502 lb/MSF	2, 4	0.300 lb/MSF	3	47	3

Hazardous Air Pollutant	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Uncontrolled Emissions	
					(lb/hr)	(ton/yr)
Acetaldehyde	2.55E-02 lb/MSF	2	1.30E-02 lb/MSF	3	2.401	0.147
Acrolein	9.88E-03 lb/MSF	2	3.21E-03 lb/MSF	3	0.929	0.036
Arsenic	1.05E-05 lb/MSF	2	6.09E-06 lb/MSF	3	0.001	0.000
Benzene	6.93E-04 lb/MSF	2	2.97E-04 lb/MSF	3	0.065	0.003
Beryllium	3.63E-07 lb/MSF	2	1.49E-07 lb/MSF	3	3.41E-05	1.68E-06
Cadmium	2.37E-05 lb/MSF	2	1.15E-05 lb/MSF	3	0.002	0.000
Chlorine	2.11E-03 lb/MSF	2	1.01E-03 lb/MSF	3	0.199	0.011
Chromium	1.16E-04 lb/MSF	2	4.52E-05 lb/MSF	3	0.011	0.001
Cumene	5.04E-02 lb/MSF	2	1.50E-02 lb/MSF	3	4.739	0.170
Dichloromethane	1.54E-03 lb/MSF	2	5.73E-04 lb/MSF	3	0.144	0.006
Formaldehyde	4.84E-02 lb/MSF	2	2.73E-02 lb/MSF	3	4.552	0.309
Hexane	2.74E-03 lb/MSF	2	1.00E-03 lb/MSF	3	0.258	0.011
Hydrogen Chloride	4.82E-03 lb/MSF	2	2.82E-03 lb/MSF	3	0.453	0.032
Lead	1.24E-04 lb/MSF	2	7.90E-05 lb/MSF	3	0.012	0.001
Manganese	1.95E-03 lb/MSF	2	4.72E-04 lb/MSF	3	0.183	0.005
MDI	2.51E-04 lb/MSF	2	7.18E-05 lb/MSF	3	0.024	0.001
Methanol	1.12E-01 lb/MSF	2	8.36E-02 lb/MSF	3	10.49	0.94

**Table B-12: Routine Control Device Maintenance Exemption (RCDME)**

**Emission Unit:** OSB Press (ID No. 4700-00-10);  
Energy Cell 1 (ID Nos. 3800-00-10 and 3816-00-11);  
Energy Cell 2 (ID Nos. 3900-00-10 and 3916-00-11); and  
Dryer Nos. 1, 2, 3, and 4 (ID Nos. 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11)  
**Control Device:** Wet Electrostatic Precipitator Nos. 1 and 2 (ID No. 4110-00-10 and 4120-00-10)  
**Emission Point:** ID No. 21

**Potential Emissions Summary (continued):<sup>1</sup>**

Hazardous Air Pollutant	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Uncontrolled Emissions	
					(lb/hr)	(ton/yr)
Methyl isobutyl ketone	1.47E-03 lb/MSF	2	7.52E-04 lb/MSF	3	0.138	0.009
Naphthalene	2.29E-07 lb/ODT	5	2.29E-07 lb/ODT	5	1.28E-05	1.69E-06
Nickel	4.32E-05 lb/MSF	2	1.82E-05 lb/MSF	3	0.004	0.000
Phenol	0.00E+00 lb/MSF	6	0.00E+00 lb/MSF	6	0.000	0.000
POM	3.23E-07 lb/ODT	5	3.23E-07 lb/ODT	5	1.81E-05	2.38E-06
Propionaldehyde	1.06E-02 lb/MSF	2	2.21E-03 lb/MSF	3	0.999	0.025
Toluene	1.72E-03 lb/MSF	2	6.29E-04 lb/MSF	3	0.161	0.007
Xylenes	8.00E-03 lb/ODT	5	8.00E-03 lb/ODT	5	0.448	0.059
Total MACT HAP	- -	-	- -	-	19.37	1.46
Total HAP	- -	-	- -	-	26.21	1.78

**Methanol Adjustment for VOC calculation**

Methanol as propane (lb/hr):	4.81	Methanol as propane (tpy):	0.43
Methanol Response Factor:	65%		
Methanol Adjusted as propane (lb/hr):	3.13	Methanol Adjusted as propane (tpy):	0.28
<b>Total WPP1 VOC(lb/hr)<sup>4</sup>:</b>	<b>59.1</b>	<b>Total WPP1 VOC(tpy)<sup>4</sup>:</b>	<b>4.4</b>

**References:**

1. Stack testing includes contributions from strand drying, direct wood-firing, and the press. Hourly emission rates are based on the Maximum Hourly OSB Production. Annual emission rates are based on the Average Annual OSB Production. Uncontrolled values are without RCO control.
2. Emission factor based on stack testing conducted on the Wet ESP. Emission factor represents the 95th % Confidence Level.
3. Emission factor based on stack testing conducted on the Wet ESP. Emission factor represents the average of test runs.
4. VOC emission testing was performed from 1997 through 2006; all results were converted to a propane basis. Per EPA's *Interim VOC Measurement Protocol for the Wood Products Industry - July 2007*, WPP1 VOC is calculated based on VOC as propane, plus formaldehyde and methanol emissions, with a methanol adjustment.
5. Reportable Compound Estimating Guide OSB Mills, 2002, prepared by Weyerhaeuser Environmental Technology and Science. Emission factors for direct wood-fired OSB dryers.
6. Phenol resulted in non-detect on all runs and the detection limit is less than 1 ppm.
7. VOC annual emission factor based on stack testing of the RCO, June 11, 2009. Stack testing included contributions from strand drying, direct wood-firing, and the press. Emission factor represents the average of test runs.
8. The WPP1 VOC factor was developed per EPA OTM-26 method, which takes the average as-carbon emission rate converted to propane by multiplying by 1.22, and then adjusts for formaldehyde, methanol, and non-VOC compounds.

**Table B-15: OSB Press Bypass**

**Emission Unit:** OSB Press (ID No. 4700-00-10)

**Control Device:** N/A

**Emission Point:** ID No. 24 (Bypass Stack)

**Potential Process Throughput:**

Average Annual OSB Production: 86 MSF/hr (3/8 inch)  
Maximum Hourly OSB Production: 94 MSF/hr (3/8 inch)  
Maximum Bypass Venting: 500 hr/yr

**Potential Emissions Summary:** <sup>1</sup>

Criteria Compounds	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Emission Rate <sup>1</sup>	
					(lb/hr)	(ton/yr)
CO	0.098 lb/MSF 3/8	2	0.098 lb/MSF 3/8	2	9.21	2.11
PM	2.71E-02 lb/MSF 3/8	3	1.59E-02 lb/MSF 3/8	4	2.55	0.34
PM-10	2.71E-02 lb/MSF 3/8	3	1.59E-02 lb/MSF 3/8	4	2.55	0.34
PM-2.5	2.71E-02 lb/MSF 3/8	3	1.59E-02 lb/MSF 3/8	4	2.55	0.34
VOC	3.93E-01 lb/MSF 3/8	5	2.61E-01 lb/MSF 3/8	5	36.90	5.62

Hazardous Air Pollutant	Hourly Emission Factor	Reference	Annual Emission Factor	Reference	Emission Rate <sup>1</sup>	
					(lb/hr)	(ton/yr)
Acetaldehyde	2.12E-02 lb/MSF 3/8	3	1.08E-02 lb/MSF 3/8	4	1.988	0.232
Acrolein	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Arsenic	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Benzene	2.49E-04 lb/MSF 3/8	3	1.23E-04 lb/MSF 3/8	4	0.023	0.003
Beryllium	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Cadmium	5.97E-06 lb/MSF 3/8	3	2.35E-06 lb/MSF 3/8	4	0.001	0.000
Chlorine	1.25E-02 lb/MSF 3/8	3	2.95E-03 lb/MSF 3/8	4	1.172	0.064
Chromium	1.66E-04 lb/MSF 3/8	3	5.95E-05 lb/MSF 3/8	4	0.016	0.001
Cumene	1.31E-01 lb/MSF 3/8	3	3.65E-02 lb/MSF 3/8	4	12.267	0.784
Dichloromethane	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Formaldehyde	6.54E-02 lb/MSF 3/8	3	4.94E-02 lb/MSF 3/8	4	6.145	1.062
Hexane	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Hydrogen Chloride	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Lead	3.87E-05 lb/MSF 3/8	3	1.10E-05 lb/MSF 3/8	4	0.004	0.000
Manganese	1.44E-04 lb/MSF 3/8	3	5.29E-05 lb/MSF 3/8	4	0.014	0.001
MDI	3.10E-04 lb/MSF 3/8	3	2.06E-04 lb/MSF 3/8	4	0.029	0.004
Methanol	1.69E-01 lb/MSF 3/8	3	1.62E-01 lb/MSF 3/8	4	15.922	3.490
MIBK	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Nickel	5.33E-04 lb/MSF 3/8	3	1.94E-04 lb/MSF 3/8	4	0.050	0.004
Phenol	5.58E-03 lb/MSF 3/8	3	1.97E-03 lb/MSF 3/8	4	0.524	0.042
Propionaldehyde	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Toluene	0.00E+00 lb/MSF 3/8	6	0.00E+00 lb/MSF 3/8	6	0.000	0.000
Total MACT HAP	- -	-	- -	-	24.58	4.83
Total HAP	- -	-	- -	-	38.15	5.69

**References:**

- Hourly emission rates are based on the Maximum Hourly OSB Production. Annual emission rates are based on the Average Annual OSB Production.
- Reportable Compound Estimating Guide OSB Mills, 2002, prepared by Weyerhaeuser Environmental Technology and Science. Emission factors represent average uncontrolled values.
- Emission factor based on stack testing conducted on the Press. Emission factor represents the 95th % Confidence Level.
- Emission factor based on stack testing conducted on the Press. Emission factor represents the average of test runs.
- VOC emission factors are the sum of VOC classified HAP compounds.
- The following compounds resulted in non-detect on all runs and the detection limit for each is less than 1 ppm: Acrolein, Arsenic, Beryllium, Dichloromethane, Hexane, Hydrogen Chloride, MIBK, Propionaldehyde, and Toluene.

**Weyerhaeuser Company - Heaters, West Virginia**  
**Plant ID No. 007-00016**

**Table B-16: Emergency Generator**

**Emission Unit:** Emergency Diesel Generator (ID No. 27S)  
**Control Device:** N/A  
**Emission Point:** ID No. 27

**Potential Process Throughput:**

Power output rating: 1030 hp  
Maximum fuel input rate: <sup>1</sup> 7.21 MMBtu/hr  
Operation: 100 hr/yr  
Diesel Sulfur Content: 0.015 % by weight

**Potential Emissions Summary:**

Criteria Compound	Emission Factor	Reference	Emission Rate	
			(lb/hr)	(ton/yr)
CO	5.50E-03 lb/hp-hr	1	5.67	0.28
NO <sub>x</sub>	2.40E-02 lb/hp-hr	1	24.72	1.24
PM	7.00E-04 lb/hp-hr	1	0.72	0.04
PM-10	5.75E-04 lb/hp-hr	1, 2	0.59	0.03
PM-2.5	5.58E-04 lb/hp-hr	1, 2	0.58	0.03
SO <sub>2</sub>	1.21E-04 lb/hp-hr	1	0.12	0.006
VOC	6.46E-04 lb/hp-hr	1	0.66	0.033
Sulfuric Acid Mist	2.63E-04 lb/MMBtu	3	1.89E-03	9.46E-05

Hazardous Air Pollutant	Emission Factor	Reference	Emission Rate	
			(lb/hr)	(ton/yr)
Acetaldehyde	2.52E-05 lb/MMBtu	2	1.82E-04	9.08E-06
Acrolein	7.88E-06 lb/MMBtu	2	5.68E-05	2.84E-06
Benzene	7.76E-04 lb/MMBtu	4	5.59E-03	2.80E-04
Formaldehyde	7.89E-05 lb/MMBtu	2	5.69E-04	2.84E-05
Naphthalene	1.30E-04 lb/MMBtu	4	9.37E-04	4.69E-05
PAHs	2.12E-04 lb/MMBtu	4	1.53E-03	7.64E-05
Toluene	2.81E-04 lb/MMBtu	4	2.03E-03	1.01E-04
Xylenes	1.93E-04 lb/MMBtu	4	1.39E-03	6.96E-05
Total MACT HAP	- -		8.07E-04	4.04E-05

**References:**

1. Maximum fuel input rate calculated using the power output rating and an average brake-specific fuel consumption (BSFC) of 7,000 Btu/hp-hr.
1. Emission factor was obtained from AP-42, Section 3.4, Table 3.4-1, October 1996. Maximum fuel input rate calculated using the power output rating and an average brake-specific fuel consumption (BSFC) of 7,000 Btu/hp-hr. Value is TOC "as methane", which is converted to propane. The formaldehyde emission factor is converted to lb/hp-hr and added into the VOC value.
2. AP-42, October 1996. The PM value (Table 3.4-1) is adjusted to PM-10 and PM-2.5 values by using a ratio of fuel input emission factors from Table 3.4-2.
3. AP-42, September 1998, Table 1.3-1 indicates that the emission factor for SO<sub>3</sub> is 2S lb/1000 gallons of oil burned, where S = sulfur content in percent by weight. All the SO<sub>3</sub> is assumed to be converted to H<sub>2</sub>SO<sub>4</sub>. Since 80 lb of SO<sub>3</sub> is equivalent to 98 lb of H<sub>2</sub>SO<sub>4</sub>, the emission factor of H<sub>2</sub>SO<sub>4</sub> is estimated to be 2.45S lb/1000 gallons of fuel burned (2.45 S = 2S x 98/80). Based on an average heating value of 140,000 Btu per gallon of diesel, the emission factor for H<sub>2</sub>SO<sub>4</sub> is estimated to be 0.0175S lb/MMBtu.

## **APPENDIX C**

### **PROPOSED PERMIT LANGUAGE**

#### **Title V Renewal Permit Application**

**Sutton OSB Facility, 007-00016  
Heaters, West Virginia**

Weyerhaeuser NR Company  
3601 Gauley Turnpike  
Heaters, West Virginia

October 2017



October 17, 2017

Ms. Carrie McCumbers  
Title V Permitting Coordinator  
WVDEP, Division of Air Quality  
601 – 57<sup>th</sup> Street  
Charleston, West Virginia 25304

**Re: Weyerhaeuser, Title V Renewal Application, R30-00700016-2017**

Dear Ms. McCumbers,

SLR International Corporation and Weyerhaeuser have reviewed the existing Title V permit and have identified a number of permit conditions that have become outdated and/or have operating conditions that need to be adjusted to reflect current operations. As a result, the following proposed permit language is being supplied as a permit markup to reflect these areas.

In particular we would like to highlight a few conditions Weyerhaeuser feels are significant, but can easily be overlooked due to only slight tweaks within the permit language. The first of these items is found under permit condition 4.2.7 and pertains to Reg. 7 opacity monitoring. The request is to strike emission point 023 from the applicable emission points. The reason and justification for this proposed change is a result of the new Biofilter being a wet control device similar to a packed bed scrubber. The emissions from point 023 are saturated with moisture and the resulting water vapor plume is similar to that seen on power plant scrubbers. Because of the combined water vapor, the exhaust from this stack cannot be read using the visual techniques of Method 9 or 22. Please consider removing this source from the visible emission check monitoring language of condition 4.2.7.


The second item is located within condition 4.2.10 and pertains to the parametric monitoring limits for the Dry Waste System Baghouse. As a result of bag replacement Weyerhaeuser has observed reductions in the pressure drop across this fabric filter control device. The previous lower limit of 0.5 inches of water column (W.C) has been found to be even higher than the pressure drop observed right after new bags are installed. Therefore, the request is to consider changing this lower limit from 0.5 inches of W.C. to 0.2 inches W.C.

To a broader extent this renewal will also encompass multiple changes related to the removal of the old regenerative chemical oxidizers (RCO), which were replaced by the Biofilter permitted last year. Now that the Biofilter is up and running the RTO operating language has become obsolete.

October 17, 2017  
Carrie McCumbers  
Page 2

Weyerhaeuser is looking forward to working with you and your group at WVDAQ to implement the new compliance measures defined by the renewal permit. Please keep in mind that SLR and Weyerhaeuser would be more than happy to discuss the details of the requested changes at your convenience. If any additional information is needed, please contact me by telephone at (304) 545-8563 or by e-mail at [jhanshaw@slrconsulting.com](mailto:jhanshaw@slrconsulting.com)

Sincerely,  
**SLR International Corporation**

  
Jesse Hanshaw  
Principal Engineer

Cc: Mr. Matthew Rutherford, Weyerhaeuser Environmental Manager



West Virginia Department of Environmental Protection  
Division of Air Quality

Earl Ray Tomblin  
Governor

Randy C. Huffman  
Cabinet Secretary

# Permit to Operate



Pursuant to  
Title V  
of the Clean Air Act

Issued to:  
**Weyerhaeuser NR Company**  
Sutton OSB Mill  
R30-00700016-2013

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John A. Benedict  
Director

Issued: April 22, 2013 • Effective: May 6, 2013  
Expiration: April 22, 2018 • Renewal Application Due: October 22, 2017

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
3800-00-10	10	Energy Cell No. 1 - Idle Run <sup>(1)</sup>	1996	<30 MMBTU/hr	Multi-Clone No.1 3820-00-10
3816-00-11	21 23	Energy Cell No. 1 Auxiliary Burner – Normal Run <sup>(1)</sup>	1996	29 MMBTU/hr	Wet ESP No. 1 4110-00-10 <del>RCO No. 1 4440-00-10</del>
3800-00-10	21 23	Energy Cell No. 1 – Normal Run <sup>(1)</sup>	1996	175 MMBTU/hr	Biofilter 4800-00-10
3916-00-11	11	Energy Cell No. 2 Auxiliary Burner – Idle Run <sup>(1)</sup>	1996	29 MMBTU/hr	Multi-Clone No.2 3920-00-10
3900-00-10	11	Energy Cell No. 2 - Idle Run <sup>(1)</sup>	1996	< 30 MMBTU/hr	Multi-Clone No.2 3920-00-10
3916-00-11	21 23	Energy Cell No. 2 Auxiliary Burner – Normal Run <sup>(1)</sup>	1996	29 MMBTU/hr	Wet ESP No. 2 4120-00-10 <del>RCO No. 2 4460-00-10</del>
3900-00-10	21 23	Energy Cell No. 2 – Normal Run <sup>(1)</sup>	1996	175 MMBTU/hr	Biofilter 4800-00-10
3130-00-11	21 23	Auxiliary Burner – Dryer No. 1	1996	55 MMBTU/hr	Wet ESP No. 1 4110-00-10 <del>RCO No. 1 4440-00-10</del>
3230-00-11	21 23	Auxiliary Burner – Dryer No. 2	1996	55 MMBTU/hr	Biofilter 4800-00-10
3330-00-11	21 23	Auxiliary Burner – Dryer No. 3	1996	55 MMBTU/hr	Wet ESP No.2 4120-00-10 <del>RCO No. 2 4460-00-10</del>
3430-00-11	21 23	Auxiliary Burner – Dryer No. 4	1996	55 MMBTU/hr	Biofilter 4800-00-10
4700-00-10	21 23	OSB Press Vent Exhaust	1996	60.4 Ton/hr	Wet ESP No. 1 4110-00-10 <del>RCO No. 1 4440-00-10</del> Wet ESP No. 2 4120-00-10 <del>RCO No. 2 4460-00-10</del> Biofilter 4800-00-10
4700-00-10	24	OSB Press Vent Exhaust (Bypass Mode)	1996	60.4 Ton/hr	None
27S	27	Emergency Diesel Generator	1996	760-1,030 hp	None
31S	31	Liquid Phenolic Resin Tank No. 1	1996	15,000 Gallons	None

**Comment [RM1]:** Design Capacity of Emergency Generator needs corrected to 1,030 hp (760 is kw rating)

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
32S	32	Liquid Phenolic Resin Tank No. 2	1996	15,000 Gallons	None
33S	33	Liquid Phenolic Resin Tank No. 3	1996	15,000 Gallons	None
34S	34	Liquid Phenolic Resin Tank No. 4	1996	15,000 Gallons	None
46S	46	Liquid Phenolic Resin Tank No. 5	2005	15,000 Gallons	None
47S	47	Liquid Phenolic Resin Tank No. 6	2005	15,000 Gallons	None
35S	35	MDI Tank No. 1	1996	15,000 Gallons	None
36S	36	MDI Tank No. 2	1996	15,000 Gallons	None
37S	37	Wax Tank No. 1	1996	15,000 Gallons	None
38S	38	Wax Tank No. 2	1996	15,000 Gallons	None
40S and 41S	40 and 41	Paint Booth No. 1	2002	26 Gal./hr	Filters
42S and 43S	42 and 43	Paint Booth No. 2	2002	26 Gal./hr	Filters
44S and 45S	44 and 45	Paint Booth No. 3	2002	26 Gal./hr	Filters

<sup>(1)</sup> Energy Cells are authorized to operate in the following scenarios: During "normal operations," gases will be vented through Wet ESPs and RCO or Biofilter and out Emission Point 21 or 23, respectively. During RCDME, gases will be vented through Wet ESPs and out Emission Point 21. During "Idle Run Condition," gases will be vented through Multiclones and out Emission Points 10 and 11. During "Energy Cell Only Mode," gases will be vented through Wet ESPs and out Emission Point 21.

## 1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1761I	August 5, 2016

Emission Point	Source	Control Device	Pollutant	Emission Limit	
				Hourly (pph)	Annual (tpy)
10 <sup>(2)</sup>	Energy Cell No. 1 (3800-00-10) (Idle-Run Mode Only)  Auxiliary Burners (3816-00-11) (Idle-Run Mode Only)	Multi-Clone (3820-00-10)	PM <sub>10</sub>	6.8	9.5
			SO <sub>2</sub>	1.0	1.4
			CO	6.0	8.4
			VOC	9.1	12.8
			NO <sub>x</sub>	8.0	11.2
			Benzene	0.45	0.63
11 <sup>(2)</sup>	Energy Cell No. 2 (3900-00-10) (Idle-Run Mode)  Auxiliary Burners (3916-00-11) (Idle-Run Mode)	Multi-Clone (3920-00-10)	Hydrochloric Acid	0.22	0.31
			Lead Compounds	0.01	0.01
			Methylene Chloride	0.07	0.10
			Napthalene	0.43	0.60
			POM	0.43	0.60
			Total HAP	2.71	3.79
21 <sup>(3)</sup>	Energy Cell No. 1 (3800-00-10) Energy Cell No. 2 (3900-00-10) Dryer No. 1 (3130-00-11) Dryer No. 2 (3230-00-11) Dryer No. 3 (3330-00-11) Dryer No. 4 (3430-00-11) OSB Press (4700-00-10) Auxiliary Burners (3816-00-11) Auxiliary Burners (3916-00-11)	Wet ESP No. 1 (4110-00-10)	PM <sub>2.5</sub> /PM <sub>10</sub> /PM	34.68	N/A <sup>(3)</sup>
			SO <sub>2</sub>	12.26	
			CO	40.66	
			VOC	59.09	
			NO <sub>x</sub>	88.23	
			Acetaldehyde	2.40	
		Wet ESP No. 2 (4210-00-10)	Acrolein	0.93	
			Formaldehyde	4.55	
			Lead Compounds	0.01	
			Methanol	10.49	
			Phenol	0.00	
			Propionaldehyde	1.00	
21 <sup>(4)</sup>	<del>Energy Cell No. 1 (3800-00-10)</del> <del>Energy Cell No. 2 (3900-00-10)</del> <del>Dryer No. 1 (3130-00-11)</del> <del>Dryer No. 2 (3230-00-11)</del> <del>Dryer No. 3 (3330-00-11)</del> <del>Dryer No. 4 (3430-00-11)</del> <del>OSB Press (4700-00-10)</del> <del>Auxiliary Burners (3816-00-11)</del> <del>Auxiliary Burners (3916-00-11)</del>	<del>Wet ESP No. 1 (4110-00-10)</del>	<del>PM<sub>2.5</sub>/PM<sub>10</sub>/PM</del>	<del>34.68</del>	N/A <sup>(5)</sup>
			<del>SO<sub>2</sub></del>	<del>12.26</del>	
			<del>CO</del>	<del>44.66</del>	
			<del>VOC</del>	<del>16.84</del>	
			<del>NO<sub>x</sub></del>	<del>88.23</del>	
			<del>Acetaldehyde</del>	<del>0.73</del>	
		<del>Regenerative Catalytic Oxidizer Nos. 1 and 2 (4440-00-10 and 4460-00-10)</del>	<del>Acrolein</del>	<del>0.28</del>	
			<del>Formaldehyde</del>	<del>4.45</del>	
			<del>Lead Compounds</del>	<del>0.01</del>	
			<del>Methanol</del>	<del>3.21</del>	
			<del>Phenol</del>	<del>0.00</del>	
			<del>Propionaldehyde</del>	<del>0.31</del>	
23 <sup>(6)</sup>	Energy Cell No. 1 (3800-00-10) Energy Cell No. 2 (3900-00-10) Dryer No. 1 (3130-00-11) Dryer No. 2 (3230-00-11) Dryer No. 3 (3330-00-11) Dryer No. 4 (3430-00-11) OSB Press (4700-00-10) Auxiliary Burners (3816-00-11) Auxiliary Burners (3916-00-11)	Wet ESP No. 1 (4110-00-10)	PM <sub>2.5</sub> /PM <sub>10</sub> /PM	34.68	79.40
			SO <sub>2</sub>	12.26	17.90
			CO	44.66	225.40
			VOC	48.60	118.40
			NO <sub>x</sub>	88.23	246.55
			Acetaldehyde	2.40	4.89
		Wet ESP No. 2 (4210-00-10)	Acrolein	0.93	1.21
			Cumene	4.74	5.67
			Formaldehyde	4.56	10.32
			Lead Compounds	0.01	0.03
			Methanol	1.05	3.15
			Phenol	0.00	0.00
		Biofilter (4800-00-10)	Propionaldehyde	1.00	0.83

Emission Point	Source	Control Device	Pollutant	Emission Limit	
				Hourly (pph)	Annual (tpy)
			Xylenes	0.45	1.96
			Total HAP	17.01	33.16
24	OSB Press (4700-00-10) (Bypass Mode)	N/A	PM <sub>10</sub>	2.5	0.48
			CO	9.0	2.95
			VOC	36.0	7.86
			Acetaldehyde	1.94	0.33
			Chlorine	1.14	0.09
			Cumene	12.0	1.10
			Formaldehyde	6.00	1.49
			Methanol	15.5	4.88
			MDI	0.03	0.01
			Phenol	0.52	0.06
			Total HAP	37.3	7.96
27	Emergency diesel-fired generator	N/A	PM <sub>10</sub>	0.44	0.03
			SO <sub>2</sub>	3.1	0.16
			CO	4.2	0.21
			VOC	0.50	0.03
			NO <sub>x</sub>	18.2	0.92
31	Liquid Phenolic Resin Tank No. 1	N/A	VOC	---	0.01
32	Liquid Phenolic Resin Tank No. 2	N/A			
33	Liquid Phenolic Resin Tank No. 3	N/A			
34	Liquid Phenolic Resin Tank No. 4	N/A			
35	MDI Tank No. 1	N/A	VOC	---	---
36	MDI Tank No. 2	N/A			
37	Wax Tank No. 1	N/A	VOC	---	0.01
38	Wax Tank No. 2	N/A			
40 & 41	Paint Booth No. 1	Filters	PM <sub>10</sub>	0.39	1.71
42 & 43	Paint Booth No. 2	Filters			
44 & 45	Paint Booth No. 3	Filters			
46	Liquid Phenolic Resin Tank No. 5	N/A	VOC	---	0.01
47	Liquid Phenolic Resin Tank No. 6	N/A			

- (1) The VOC emissions from emission points 1-11 are based on estimations using industry averages and not testing data.
- (2) These emission limits are applicable only when the Energy Cells are in "Idle Run Mode" as defined under 4.1.3. As these emissions are less than those generated during normal operation or RCDME, they do not contribute to the facility's PTE.
- (3) These emission limits are applicable only when the mill is operating under the RCDME as outlined under 4.1.3. Emissions generated during the RCDME contribute toward the annual emission limits given under footnote (6) as applicable. Although the RCDME Emissions are contributed toward the limits under Emission Point 23 they are actually vented through Emission Point 21.
- (4) The hourly emission limits are applicable when the RCOs are being utilized during all times of "normal operation" and during times of "Energy Cell Only Mode" as defined under 4.1.3. The annual emission limits also include contributions made during RCDME events.
- (5) Emissions when the RCOs are being utilized during all times of "normal operation" and during times of "Energy Cell Only Mode" as defined under 4.1.3. contribute toward the annual emission limits given under footnote (6) as applicable.
- (6) The hourly emission limits are applicable when the Biofilter is being utilized during all times of "normal operation" and during times of "Energy Cell Only Mode" as defined under 4.1.3. The annual Emission Limits also include contributions made during RCDME events.

*Compliance with the hourly PM<sub>10</sub> emission limits for emission points 3, 4, 5, 6, 7, 9, 21, 23, 24, 40, 41, 42, 43, 44, and 45 shall streamline compliance with the less stringent hourly particulate matter emission limits of 45CSR§7-4.1. Compliance with the hourly PM<sub>10</sub> emission limit for emission points 10 and 11 shall streamline compliance with the less stringent 45CSR§2-4.1.b hourly particulate matter emission limit. Compliance with the hourly SO<sub>2</sub> emission limit for emission points 10 and 11 shall streamline compliance with the less stringent 45CSR§10-3.3.f hourly SO<sub>2</sub> emission limit.*

**[45CSR13, R13-1761, 4.1.2, 4.1.13, 4.1.14, and 4.1.15; 45CSR§7-4.1; 45CSR§2-4.1.b; 45CSR§10-3.3.f]**

4.1.3. For the purposes of this permit, the following operating scenarios are defined:

a. "Normal operation" shall mean those times when:

~~(1) The Energy Cells are in operation, material is being dried in the dryers, gases are vented through the operating WESPs and RCOs, and emitted from Emission Point 21; or~~

(2) The Energy Cells are in operation, material is being dried in the dryers, gases are vented through the operating WESPs and Biofilter, and emitted from Emission Point 23.

b. "Idle Run Mode" shall be defined as those times when the Energy Cells are operating, no material is being dried in the dryers, gases are vented through the operating Multi-clones, and emitted from Emission Points 10 and 11.

c. "Energy Cell Only Mode" shall be defined as those times when the Energy Cells are operating, no material is being dried in the dryers, gases are vented through the operating WESPs, and emitted from Emission Point 21.

d. "RCDME" shall be defined as those times when the Energy Cells are operating, material is being dried in the dryers, gases are vented through the operating WESPs, and emitted from Emission Point 21.

**[45CSR13, R13-1761, 4.1.3]**

4.1.4. Operation of the Energy Cells (ID No. 3800-00-10 and ID No. 3900-00-10) shall be in accordance with the following requirements:

a. The permitted facility shall burn only hogged wood as the primary fuel or natural gas as the backup fuel to fire the Energy Cells (ID No. 3800-00-10 and ID No. 3900-00-10). Alternative fuels may be used only after receiving prior written approval from the Director.

b. During Idle Run Mode, Energy Cells shall be limited to a combined total of 2,800 hours of operation on a consecutive 12-month period; and

c. During Idle Run Mode, the combined heat input rate to Energy Cells (ID No. 3800-00-10 and ID No. 3900-00-10) shall be limited to 40 MMBTU/hr. Additionally, the maximum heat input rate to each individual energy cell shall be less than 30 MMBTU/hr.

**[45CSR13, R13-1761, 4.1.4]**

4.1.5. The auxiliary natural gas burners, designated as 3816-00-11 and 3916-00-11, (associated with the Energy Cells), shall not exceed a maximum design heat input of 29 MMBTU/hr per unit.

**[45CSR13, R13-1761, 4.1.5]**

- 4.1.6. Pursuant to 40 CFR 63, Subpart DDDD, operation of the facility under the Routine Control Device Maintenance Exemption (RCDME) shall be according to the following requirements:
- For each process unit, a maximum of 3% of its actual annual operating hours may be during periods when its controlling ~~RCO or~~ Biofilter is offline for routine maintenance. This exemption applies to each dryer (1-4) and the press. ~~Additionally, since the press is controlled by both the RCOs or Biofilter, any time it operates while either RCO or Biofilter is offline for routine maintenance, shall be counted fully towards its 3% limit;~~
  - ~~In order to minimize emissions, the facility shall not process any pine during any time when either of the RCOs is offline for routine maintenance and the press and/or any of the dryers (1-4) which are controlled by the offline RCO continues to operate.~~
  - As a minimization strategy, the facility shall to the greatest extent practically possible perform routine maintenance during periods when the press and dryers are already offline (not producing product) for maintenance or other reasons.
  - ~~As a minimization strategy, the facility shall to the greatest extent practically possible take only one RCO offline at a time for routine maintenance, continuing the normal operation of the other RCO so long as the process units which it controls are operating.~~
  - ~~The permittee shall follow the Standard Operating Procedure submitted as Attachment T in permit application R13-1761G to prevent pine from being processed during periods of operation under the RCDME; and~~
  - After startup of the Biofilter, operation of the facility under the RCDME shall only occur after a new RCDME request specific to the Biofilter (submitted pursuant to the requirements of Subpart DDDD) is approved in writing by the Director.  
**[45CSR13, R13-1761, 4.1.6]**
- 4.1.7. The permitted facility shall route the press vent exhaust fumes into the Energy Cells and Dryers during normal operations. At times when the press is processing wood materials, the facility will be allowed to exhaust press vent fumes directly to the atmosphere through a press Bypass Stack (emission point 24) for a maximum of 500 hours per consecutive 12 month period. When the presses are not processing wood, the press vent fumes may be exhausted directly to the atmosphere through the press Bypass Stack for an unrestricted amount of time.
- With the exception of times meeting the facility's routine control device maintenance exemption (RCDME) criteria, the permittee shall not bypass control equipment at any time, except as allowed under "Startup, Shutdown, and/or Malfunction" (SSM) events as defined within 40 CFR §63.2. During any SSM event the permittee shall have the general duty to reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. Therefore, the permittee shall maintain a startup, shutdown, and malfunction plan in accordance with 40 CFR §63.6(e)(3). Each of these events shall be reported in accordance with 40 CFR §63.10(d)(5) and thus 4.5.3 of this permit.  
**[45CSR13, R13-1761, 4.1.7, 40 C.F.R. §63.2290]**
- 4.1.8. The auxiliary natural gas fired burners (for Dryers No. 1 through No. 4), designated as 3130-00-11, 3230-00-11, 3330-00-11, and 3430-00-11, shall not exceed a maximum design heat input of 55 MMBTU/hr per unit.  
**[45CSR13, R13-1761, 4.1.8]**

matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.  
[45CSR13, R13-1761, 4.1.14; 45CSR§7-5.2]

- 4.1.24. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.  
[45CSR13, R13-1761, 4.1.14; 45CSR§7-9.1]

- 4.1.25. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.  
[45CSR13, R13-1761, 4.1.15; 45CSR§10-4.1, Emission Point ID (21 and 23)]

- 4.1.26. The owner or operator of a plant that discharges or may discharge a toxic air pollutant into the open air in excess of the amount shown in Table A of 45CSR27 shall employ BAT at all chemical processing units emitting the toxic air pollutant: Provided, that any source or equipment specially subject to a federal regulation or standard shall not be required to comply with provisions more stringent than such regulation or standard.  
[45CSR13, R13-1761, 4.1.16; 45CSR§27-3.1, Emission Point IDs (10, 11, 21, 23, 24)]

~~4.1.27. 40 C.F.R. 63, Subpart DDDD Add-on Control Systems Compliance Options (RCOs). Except for periods when the mill is operating under the RCDME or during times of SSM, the permittee shall, while using RCOs limit emissions of total HAP from emission point 21, measured as THC (as carbon) to 20 ppmvd. [45CSR13, R13-1761, 4.1.17; 45CSR34; 40 C.F.R. §63.2240(b) and 40 C.F.R. 63, Subpart DDDD, Table 1B]~~

~~4.1.28. 40 C.F.R. 63, Subpart DDDD Operating Requirements (RCOs). The permittee shall meet the following RCO operating requirements:~~

- ~~a. For a thermal oxidizer, maintain the 3-hour block average firebox temperature above the minimum temperature established during the performance test or maintain the 3-hour block average THC concentration in the thermal oxidizer exhaust below the maximum concentration established during the performance test.~~
- ~~b. For a catalytic oxidizer, maintain the 3-hour block average catalytic oxidizer temperature above the minimum temperature established during the performance test; AND check the activity level of a representative sample of the catalyst at least every 12 months or maintain the 3-hour block average THC concentration in the catalytic oxidizer exhaust below the maximum concentration established during the performance test.~~

~~The operating limits summarized above were defined within the permittee's notification of compliance status report dated May 27, 2009 as well as a July 30, 2009 notification of compliance status addendum. Upon submittal of a notification of process change as specified within §63.2280(g)(3) and a subsequent finding of compliance made by the WVDAQ, the operating limits listed above may be revised as allowed under the Federal Regulation.~~  
~~[45CSR13, R13-1761, 4.1.18; 45CSR34; 40C.F.R. §63.2240(b) and 40 C.F.R. 63, Subpart DDDD, Table 2]~~



the press vent fumes are being exhausted directly to the atmosphere through the press Bypass Stack (Emission Point 24).

**[45CSR13, R13-1761, 4.2.2]**

- 4.2.3. For the purpose of determining compliance with the throughput limits set forth in Section 4.1.9.1 through 4.1.9.3 of this permit, the permittee shall monitor and record the monthly and twelve month rolling total throughput of phenol formaldehyde resin (liquid or powder) as measured on a solids basis, polymeric diphenylmethane diisocyanate (MDI), and wax.

**[45CSR13, R13-1761, 4.2.3]**

- 4.2.4. For the purpose of determining compliance with the production limit set forth in Section 4.1.9.4 of this permit, the permittee shall monitor and record the monthly and rolling twelve month total of OSB (as adjusted to 3/8 inch) produced at the facility. Compliance with the hourly production limit shall be based on the average hourly production rate as calculated for each month.

**[45CSR13, R13-1761, 4.2.4]**

- 4.2.5. The permittee shall meet all applicable **RCO and** Biofilter monitoring requirements pursuant to 40 C.F.R. 63, Subpart DDDD. This shall include continuous monitoring of the **RCO operating temperatures, which shall be tabulated as a 3-hour block average consisting of evenly spaced readings, recorded in the previous 3 operating hours; and** Biofilter bed temperature monitoring or Biofilter outlet THC monitoring, determined as the 24-hour block average of all recorded readings, calculated after every 24 hours of operation as the average of the evenly spaced recorded readings in the previous 24 operating hours. For purpose of calculating data averages, you must not use data recorded during the events listed within 40 CFR §63.2270(b) and (c). Some of these events include malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, data recorded during periods of startup, shutdown, and malfunction; or data recorded during periods of control device downtime covered in any approved routine control device maintenance exemption.

Additionally in accordance with 40 CFR §63.2270(f), to calculate the data averages for each **3-hour or** 24-hour averaging period, you must have at least 75 percent of the required recorded readings for that period using only readings that are based on valid data.

**[45CSR13, R13-1761, 4.2.5., 40C.F.R. §63.2270]**

- 4.2.6. To demonstrate compliance with the 45CSR§2-3.1 opacity limits specified in 4.1.13 for emissions points 10 and 11, the permittee shall conduct semimonthly (every two weeks) visible emission checks. These checks shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using the procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the checks, or at any other time, the permittee shall conduct a 40 C.F.R. 60, Appendix A, Method 9 evaluation within twenty-four (24) hours. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions.

The semimonthly visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. 60, Appendix A, Method 9 certification course.

**[45CSR§30-5.1.c, Emission Point IDs (10, 11)]**

- 4.2.7. To demonstrate compliance with the 45CSR§§7-3.1, 3.2, and 3.7 opacity limits specified in 4.1.15, 4.1.16, and 4.1.17 for emissions points 1, 3, 4, 5, 6, 7, 9, 21, 23, 24, 40, 41, 42, 43, 44, and 45, the permittee shall conduct semimonthly (every two weeks) visible emission checks. These checks shall be conducted during periods of facility operation for a sufficient time interval (no less than 1 minute) to determine if the unit has visible emissions using the procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the checks, or at any other time, the permittee shall conduct a 45CSR7A evaluation within twenty-four (24) hours. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions.

The semimonthly visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. 60, Appendix A, Method 9 certification course.

**[45CSR§30-5.1.c, Emission Point IDs (1, 3, 4, 5, 6, 7, 9, 21, 23, 24, 40, 41, 42, 43, 44, and 45)]**

- 4.2.8. For Wet ESP No. 1 (4110-00-10), Wet ESP No. 2 (4120-00-10), and the Dry Waste System Baghouse (4397-00-01), the permittee shall conduct visual inspections of the ductwork and the control devices. These visual inspections shall be conducted by personnel trained annually on the proper methods to complete these inspections and a copy of the current training manual shall be maintained on site and available for review by the Director or his duly authorized representative upon request. External inspections of the ductwork and control devices shall be conducted monthly and internal inspections shall be conducted every 12 months. Any leaks or structural deficiencies discovered during these inspections, or at any other time, are indicators that the equipment is not in proper working order. Leaks or structural deficiencies shall be repaired as soon as practicable, but no later than one week within the date of discovery, unless granted an extension by the Director.

**[45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), and 64.7(d)]**

- 4.2.9. The permittee shall continuously monitor the voltage of Wet ESP No. 1 (4110-00-10) and Wet ESP No. 2 (4120-00-10). The voltage on each Wet ESP shall be measured with a voltmeter having a minimum accuracy of  $\pm 1$  kV. At least semi-annually, each voltmeter shall be calibrated to confirm that it has a reading of zero when the Wet ESP is not operating. During normal operation, each Wet ESP shall have at least 2 fields in service and the voltage shall be maintained at or above 10 kV. If the voltage falls below 10 kV for 30 seconds, an alarm will sound and corrective action shall be taken to return the voltage to a value at or above 10 kV.

**[45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), and 64.7(d)]**

- 4.2.10. The permittee shall monitor the pressure drop across the Dry Waste System Baghouse (4397-00-01) on a daily basis. The pressure drop shall be measured using a differential pressure gauge with a minimum accuracy of  $\pm 0.25$  inches of H<sub>2</sub>O. Pressure taps shall be located at the inlet and outlet to the baghouse. At least annually, the pressure gauge and the reader shall be calibrated according to manufacturer's recommendations. When the pressure drop is greater than 5 inches of H<sub>2</sub>O or less than 0.2 inches of H<sub>2</sub>O, the permittee shall conduct an inspection of the baghouse and corrective action shall be taken to return the pressure drop to an operating range of less than 5 inches and greater than 0.2 inches of H<sub>2</sub>O.

**[45CSR§30-5.1.c; 40 C.F.R. §§64.6(c), 64.7(c), and 64.7(d)]**

**Comment [RM2]:** 4.2.7. Remove Emission Point 23 – Biofilter is a wet control device (similar to a wet scrubber) and moisture in the air stream condenses as it exits the stack and makes contact with cooler ambient air creating a thick white plume

**Comment [RM3]:** 4.2.10. Adjust Dry Waste System Baghouse pressure drop operating range low end from "less than 0.5 inches of H<sub>2</sub>O" to "less than 0.2 inches of H<sub>2</sub>O"

### 4.3. Testing Requirements

4.3.1. Performance testing shall be in accordance with the following:

- a. At the same time as the initial performance test required under 40 C.F.R. 63, Subpart DDDD, the permittee shall conduct, or have conducted, a performance test during “normal mode” as defined under 4.1.3.a.2 to determine compliance at Emission Point 23 with the hourly emission limits of VOCs and the HAPs targeted by 40 CFR 63, Subpart DDDD;
- b. Use of test methods shall be in accordance, where applicable, with 40 CFR 63, Subpart DDDD or in accordance with information contained in an approved test protocol; and
- c. Any required performance test shall be in accordance with 3.3.1.

**[45CSR13, R13-1761, 4.3.1]**

4.3.2. The permittee shall meet all applicable RCO and Biofilter testing requirements pursuant to 40 C.F.R. 63, Subpart DDDD. This shall include annual catalyst activity testing in accordance with 40 CFR 63 Table 2 Row (2) and Table 7 Row (4) and the repeat Biofilter performance testing as specified in 40 C.F.R. 63 Subpart DDDD Table 7 Row (3) as well as any additional confirmatory testing determined necessary by the Director.

**[45CSR13, R13-1761, 4.3.2., and 4.1.18.b, 40 C.F.R. 63, subpart DDDD, Table 2 Row (2), Table 7 rows (3) and (4), 45CSR§30-5.1.c.]**

**Comment [RM4]:** 4.3.2. Table 7 row (3)

4.3.3. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s) may be required to conduct or have conducted tests to determine the compliance of such unit(s) with the emission limitations of 45CSR§2-4. Such tests shall be conducted in accordance with the appropriate method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director. The Director or his duly authorized representative, may at his option witness or conduct such tests. Should the Director exercise his option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. Sufficient information on temperatures, velocities, pressures, weights and dimensional values shall be reported to the Director, with such necessary commentary as he may require to allow an accurate evaluation of the reported test results and the conditions under which they were obtained.

**[45CSR13, R13-1761, 4.1.13; 45CSR§2-8.1.b and 8.1.b.1]**

4.3.4. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

**[45CSR13, R13-1761, 4.1.14; 45CSR§7-8.1]**

- 4.3.5. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.  
[45CSR13, R13-1761, 4.1.14; 45CSR§7-8.2]

~~4.3.6. In order to confirm compliance with 40 C.F.R. 63, subpart DDDD and permitted VOC limits, the permittee shall conduct confirmatory testing of emission point ID 21 at least once per Title V permit term in order to correlate catalyst activity levels and operating temperatures with THC (as carbon) concentrations and Wood Product Protocol I (WPP1) VOC emissions.  
[45CSR§30-5.1.e.1.B. and 45CSR§30-5.3]~~

**Comment [RM5]:** 4.3.6. - Remove, condition related to testing RCO. Performance testing is covered in 4.3.1.

#### 4.4. Recordkeeping Requirements

- 4.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.  
[45CSR13, R13-1761, 4.4.2]

- 4.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-1761, 4.4.3]

- 4.4.3. Reserved.
- 4.4.4. Reserved.
- 4.4.5. Reserved.

- 4.4.6. The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The permittee shall also maintain records of the date and time of start-up and shutdown; and a quarterly ash and BTU analysis of the wood combusted. (10, 11)  
*The 40 C.F.R. §60.48c(g) requirement to maintain records of the quantity of each fuel combusted on a daily basis was streamlined with the less stringent 45CSR§2A-7.1.a.1 requirement to maintain records of the quantity of natural gas consumed on a monthly bases.*  
**[45CSR13, R13-1761, 4.4.9 and 4.1.14; 40 C.F.R. §60.48c(g); 45CSR16; 45CSR§2-8.3.c; 45CSR§2A-7.1.a.1 and 7.1.a.3]**
- 4.4.7. The permittee shall meet all applicable record-keeping requirements pursuant to 40 C.F.R. 63, Subpart DDDD. These records shall include the following:
- a. ~~Maintaining records of continuous firebox/combustion chamber temperatures on each of the oxidizers.~~
  - b. ~~Catalytic activity measurements shall be recorded annually and maintained in accordance with 40 C.F.R. §63.2282(e)~~
  - c. Maintain records of all Group 1 coatings to assure the use of non-HAP coatings.
  - d. Records of performance tests and performance evaluations.
- [45CSR13, R13-1761, 4.4.10, 45CSR34, 40 C.F.R. §63.2282, 40 C.F.R. 63, Subpart DDDD, Tables 7 and 8.]**
- 4.4.8. The permittee shall maintain records of all monitoring data required by Sections 4.2.6 and 4.2.7 documenting the date and time of each visible emission check, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. Should a visible emission observation be required to be performed per the requirements specified in 40 C.F.R. 60, Appendix A, Method 9 or 45CSR7A, the data records of each observation shall be maintained per the requirements of 40 C.F.R. 60, Appendix A, Method 9 or 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (OOS) or equivalent.  
**[45CSR§30-5.1.c]**
- 4.4.9. The permittee shall monitor all fugitive particulate emission sources as required by 4.1.14 and 4.1.22 to ensure that a system to minimize fugitive emissions has been installed or implemented. Records shall be maintained stating the types of fugitive particulate capture and/or suppression systems used, the times these systems were inoperable, and the corrective actions taken to repair these systems.  
**[45CSR§30-5.1.c]**
- 4.4.10. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures as required by 4.1.23 applied at the facility.  
**[45CSR§30-5.1.c]**
- 4.4.11. The permittee shall maintain records of all monitoring data required by Section 4.2.8 documenting the date and time of each visual inspection, the emission point or equipment identification number, the name or means of identification of the responsible observer, the results of the inspection, and if necessary, all

corrective actions taken. For any maintenance conducted on the control devices, records shall be maintained in accordance with 4.4.1.

**[45CSR§30-5.1.c; 40 C.F.R. §64.9(b)]**

- 4.4.12. The voltage measured across Wet ESP No. 1 (4110-00-10) and Wet ESP No. 2 (4120-00-10) shall be recorded as a 6-minute average and records shall be maintained in accordance with 3.4.1. In addition to records of voltage, the permittee shall document and maintain records of all periods during normal operation (non-SSM) when the voltage is less than 10 kV for more than 30 seconds and any corrective actions taken during these periods. Maintenance and malfunction records for Wet ESP No. 1 and Wet ESP No. 2 shall be maintained in accordance with 4.4.1 and 4.4.2.

**[45CSR§30-5.1.c; 40 C.F.R. §64.9(b)]**

- 4.4.13. The pressure drop across the Dry Waste System Baghouse (4397-00-10) shall be recorded daily. For any excursions when the pressure drop is greater than 5 inches of H<sub>2</sub>O or less than 0.5 inches of H<sub>2</sub>O, the permittee shall maintain records of the date and length of time of the occurrence and of the corrective actions taken. Maintenance and malfunction records for the Dry Waste System Baghouse shall be maintained in accordance with 4.4.1 and 4.4.2.

**[45CSR§30-5.1.c; 40 C.F.R. §64.9(b)]**

- 4.4.14. For Compliance Assurance Monitoring (CAM), the owner or operator shall comply with the recordkeeping requirements of permit conditions 3.4.1 and 3.4.2. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. 64 (such as data used to document the adequacy of monitoring, or records of monitoring, maintenance, or corrective actions). (*Wet ESP No. 1 {4110-00-10}, Wet ESP No. 2 {4120-00-10}, and Dry Waste System Baghouse {4397-00-10}*)

**[40 C.F.R. §64.9(b)]**

- 4.4.15. Reserved.

- 4.4.16. For the purpose of determining compliance with 4.1.6.a., the permittee shall keep a daily record of any start-up, any shut-down, total hours operated and hours operated while the unit's controlling ~~RCO or~~ Biofilter is offline for routine control device maintenance. And, as regards the ~~RCOs and~~ Biofilter, the permittee shall keep daily records of any start-up, any shut-down, total hours operated and total hours off-line for routine maintenance.

**[45CSR13, R13-1761, 4.4.7]**

- 4.4.17. For the purpose of determining compliance with 4.1.6.b., the permittee shall keep records which indicate how much, if any, pine is processed during any period of routine RCO maintenance.

**[45CSR13, R13-1761, 4.4.8]**

## 4.5. Reporting Requirements

- 4.5.1. For CAM, monitoring reports shall be submitted to the Director and at a minimum shall include and be in accordance with information in permit conditions 3.5.6 and 3.5.8, as applicable. Also, at a minimum, the following information, as applicable, shall be included:

- a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

**Comment [RM6]:** 4.4.13. Adjust Dry Waste System Baghouse pressure drop operating range low end from "less than 0.5 inches of H<sub>2</sub>O" to "less than 0.2 inches of H<sub>2</sub>O"

- b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- c. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(Wet ESP No. 1 {4110-00-10}, Wet ESP No. 2 {4120-00-10}, and Dry Waste System Baghouse {4397-00-10}) [40 C.F.R. §64.9(a)]

- 4.5.2. The permittee shall meet all applicable reporting requirements pursuant to 40 C.F.R. 63, Subpart –DDDD, Table 9 and Table 10. This includes semiannual compliance reports, which contain the information described within 40 CFR §63.2281(c)-(f). The semiannual reports may coincide with title V semiannual reporting in accordance with 40 CFR §63.2281(b)(5) and (g) where applicable.

[45CSR13, R13-1761, 4.5.1., 45CSR34, 40 C.F.R. §63.2281(b)]

- 4.5.3. The permittee shall submit all startup, shutdown, and malfunction (SSM) notifications and semiannual reports in accordance with 40 CFR §63.6(e)(3) and §63.10(d)(5).

[45CSR34, 40 C.F.R. §63.2290]

~~4.5.4. In order to document compliance with the subsequent compliance testing requirement of 4.3.6, the permittee shall submit all stack test reports to the Director within 60 days of completing the testing event.~~

~~[45CSR§30-5.1.c]~~

**Comment [RM7]:** 4.5.4. - Remove, condition related to testing RCO – Emission Point 21.

#### 4.6. Compliance Plan

- 4.6.1. None.