

**Environmental  
Resources  
Management**

13 Chase Drive  
Hurricane, WV 25526  
(304) 757-4777  
(304) 757-4799 (fax)  
<http://www.erm.com>

16 December 2011

John A. Benedict, Director  
WV Department of Environmental Protection  
Division of Air Quality  
601 57th Street, SE  
Charleston, West Virginia 25304



**RE: Armstrong Hardwood Flooring Company  
Title V Renewal Application**

Dear Mr. Benedict:

On behalf of Armstrong Hardwood Flooring Company in Beverly, West Virginia, enclosed are two non-confidential CDs containing Armstrong's Title V renewal application. If you should have any questions regarding this application, please contact Mr. Boyd Karr with Armstrong at (304) 338-7619.

Sincerely,  
Environmental Resources Management

A handwritten signature in black ink that reads 'David R. Fewell'.

David R. Fewell  
Principal Consultant

Enclosures



# **Armstrong Hardwood Flooring Company**

## **Title V Renewal Permit Application**

Beverly, West Virginia

**Prepared By:  
ENVIRONMENTAL RESOURCES MANAGEMENT, Inc.  
Hurricane, West Virginia  
December 2011**

**TITLE V PERMIT APPLICATION CHECKLIST  
FOR ADMINISTRATIVE COMPLETENESS**

<p>A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.*</p>	
<input checked="" type="checkbox"/>	Two signed copies of the application (at least one <u>must</u> contain the original “ <i>Certification</i> ” page signed and dated in blue ink)
<input checked="" type="checkbox"/>	Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)
<input checked="" type="checkbox"/>	*Table of Contents (needs to be included but not for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input checked="" type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input checked="" type="checkbox"/>	General Application Forms signed by a Responsible Official
<input checked="" type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant (Armstrong Hardwood Flooring Company), 2. Facility Name (Beverly Mill), 3. DAQ Plant ID No. (083-00025), 4. Federal Employer ID No. (752882645), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (~500), 9. Governmental Code (Privately owned and operated; 0), 10. Business Confidentiality Claims (No).

<b>11. Mailing Address</b>		
Street or P.O. Box: P.O. Box 160		
City: Beverly	State: WV	Zip: 26253
Telephone Number: 304-338-4100	Fax Number: 304-338-4124	

<b>12. Facility Location</b>		
Street: Route 250 South	City: Beverly	County: Randolph County
UTM Easting: 597.41 km	UTM Northing: 4,296.88 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<p><b>Directions:</b> From Charleston, take Interstate 79 North to exit 99. Proceed east on US Route 33 to Elkins, West Virginia. Take US Route 250 South from Elkins to Beverly, West Virginia. The facility is located on the right of and adjacent to US Route 250 approximately 1.6 miles south of Beverly in Randolph County.</p>		
<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, name the affected state(s).</b> Virginia Maryland
<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 no, do emissions impact a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, name the area(s).</b> Dolly Sods Wilderness Area Otter Creek Wilderness Area
<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.		

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Kenneth H. McBride		<b>Title:</b> Plant Manager
<b>Street or P.O. Box:</b> P.O. Box 160		
<b>City:</b> Beverly	<b>State:</b> WV	<b>Zip:</b> 26253
<b>Telephone Number:</b> (304) 338-4100	<b>Fax Number:</b> (304) 338-4105	
<b>E-mail address:</b> N/A		
<b>Environmental Contact:</b> Boyd Karr		<b>Title:</b> Environment, Health, & Safety Manager
<b>Street or P.O. Box:</b> P.O. Box 160		
<b>City:</b> Beverly	<b>State:</b> WV	<b>City:</b> Beverly
<b>Telephone Number:</b> (304) 338-7619	<b>Fax Number:</b> (304) 338-4105	
<b>E-mail address:</b> N/A		
<b>Application Preparer:</b> Rachel Melville		<b>Title:</b> Environmental Engineer
<b>Company:</b> Environmental Resources Management (ERM)		
<b>Street or P.O. Box:</b> 13 Chase Drive		
<b>City:</b> Hurricane	<b>State:</b> WV	<b>Zip:</b> 25526
<b>Telephone Number:</b> (304) 757-4777	<b>Fax Number:</b> (304) 757-4799	
<b>E-mail address:</b> Rachel.Melville@erm.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
Lumber Stacking	Green Lumber	321999	2421
Lumber Drying	Kiln-Dried Lumber	321999	2421
Hardwood Flooring Mill	Unfinished Hardwood Flooring	321918	2426
Finishing Lines	Finished Hardwood Flooring	321918	2426
Wood-Fired Boilers	Steam	22133	4961

**Provide a general description of operations.**

Green lumber is purchased and stacked in the Mill Yard to facilitate air drying of the lumber. The lumber is then further dried in the steam heated pre-dryer and/or one of 38 lumber kilns. Kiln-dried lumber is transferred by one of three lumber tilts to the Mill rough end saws. The rough end saws cut the lumber into strips for transfer to one of six lines of knot saws, side matchers, and end matchers. The unfinished wood flooring is graded, stacked and either stored or transferred to one of two finishing lines. Finished hardwood flooring is graded and packaged for shipment to mill customers. Wood waste, some of which has trace amounts of coatings from the finishing line is used as a source of fuel for two boilers.

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 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 checked="" type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input checked="" type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input 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>
<p>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.</p> <ul style="list-style-type: none"> <li>• 40 CFR 60 Subpart Dc - <i>Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units</i>. The two (2) wood-fired boilers are not subject to these requirements because the boilers were purchased prior to the date the rule was proposed.</li> <li>• 40 CFR 63 Subpart QQQQ – <i>National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products</i>. Armstrong has demonstrated that by the compliance date of May 15, 2006 we were a minor source of HAPs. With the establishment of HAP emission limits below major source thresholds, Armstrong is not subject to Subpart QQQQ.</li> </ul>
<input checked="" type="checkbox"/> 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).**

- Open Burning - 45CSR§6-3.1 and 3.2
- Asbestos - 40CFR61 and 45CSR15
- Odor - 45CSR§4-3.1 (State enforceable only)
- Standby Plan for Reducing Emissions - 45CSR§11-5.2
- Emission Inventory - WV Code § 22-5-4(a)(14)
- Ozone-Depleting Substances - 40CFR82, Subpart F
- Risk Management Plan - 40CFR68
- Maintain Particulate Matter Controls - 45CSR7
- Operation and Maintenance of Air Pollution Control Equipment - 45CSR13
- Greenhouse Gas Reporting - 45CSR42

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.)**

- Monitoring - N/A
- Testing - WV Code § 22-5-4(a)(15) and 45CSR13
- Record Keeping Requirements
  - Monitoring Information - 45CSR§30-5.1.c.2.A
  - Retention of Records - 45CSR§30-5.1.c.2.B
  - Odor - 45CSR§30-5.1.c (State enforceable only)
  - Record of Maintenance of Air Pollution Control Equipment - 45CSR13
  - Record of Malfunctions of Air Pollution Control Equipment - 45CSR13
- Reporting Requirements
  - Responsible Official - 45CSR§30-4.4, 5.1.c.3.D and 5.1.c.3.E
  - Certified Emissions Statement - 45CSR§30-8
  - Compliance Certification - 45CSR§30-5.3.e
  - Semi-Annual Monitoring Reports - 45CSR§30-5.1.c.3.A
  - Emergencies – Section 2.17 of Title V permit.
  - Deviations - 45CSR§30-5.1.c.3.B through D
  - New Applicable Requirements - 45CSR§30-4.3.h.1.B
  - Violation(s) of Allowable Visible Emission Requirements - 45CSR§30-5.1.c.3
  - Greenhouse Gas Reporting Requirements - 45CSR§42

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

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





**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	227.0
Nitrogen Oxides (NO <sub>x</sub> )	107.4
Lead (Pb)	0.02
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	N/A
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	54.9
Total Particulate Matter (TSP)	237.2
Sulfur Dioxide (SO <sub>2</sub> )	11.31
Volatile Organic Compounds (VOC)	224.0
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Acrolein	1.75
Benzene	1.80
Formaldehyde	1.88
Hydrogen Chloride (HCl)	8.15
Total Aggregated HAPs*	24.4
* Includes non-speciated HAPs	
Regulated Pollutants other than Criteria and HAP	Potential Emissions
CO <sub>2</sub>	85,010
CH <sub>4</sub>	5.60
N <sub>2</sub> O	9.02

<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 checked="" 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 checked="" 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 checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" 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 checked="" 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><u>Nos. 1-38 Steam-Heated Drying Kilns (0.10 lb/hr &amp; 0.43 tpy VOC per kiln)</u>  <u>Pre-heater Kiln (0.67 lb/hr &amp; 2.92 tpy VOC)</u>  <u>500-gal Gasoline Tank dispensing &lt; 60,000 gal/yr (0.034 lb/hr &amp; 0.15 tpy VOC)</u>  <u>2,000-gal Diesel Tank dispensing &lt; 240,000 gal/yr (0.00032 lb/hr &amp; 0.0014 tpy VOC)</u>  <u>Four 275-gal Lube Oil Tanks (0.000065 lb/hr &amp; 0.00028 tpy VOC per tank)</u>  <u>300-gal Hydraulic Fluid South Stacker (0.000039 lb/hr &amp; 0.00017 tpy VOC)</u>  <u>300-gal Hydraulic Fluid North Stacker (0.000039 lb/hr &amp; 0.00017 tpy VOC)</u>  <u>Hazardous Waste Storage - Small Quantity Generator (&lt;1 lb/hr &amp; &lt;100 lbs/yr VOC)</u>  <u>Boiler Ash Dumpster Fugitive Emissions (0.68 lb/hr &amp; 3.0 tpy PM/PM-10)</u>  <u>Solvent Reclaim Unit (&lt;1 lb/hr &amp; 0.02 tpy VOC)</u></p>

<b>24. Insignificant Activities (Check all that apply)</b>	
<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 checked="" type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" 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 checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" 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 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 checked="" 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 checked="" type="checkbox"/>	32. Humidity chambers.
<input checked="" 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 checked="" type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input checked="" 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

<b>24. Insignificant Activities (Check all that apply)</b>	
	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 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 checked="" 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 checked="" 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 checked="" type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" 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 checked="" 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 checked="" type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input 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: Kenneth H McBride

Title: Plant Manager

**Responsible official's signature:**

Signature: *Kenneth H. McBride* Signature Date: 12-14-2011  
 (Must be signed and dated in blue ink)

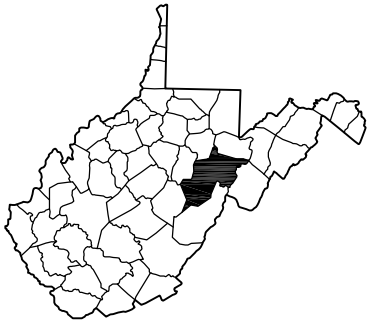
**Note: Please check all applicable attachments included with this permit application:**

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

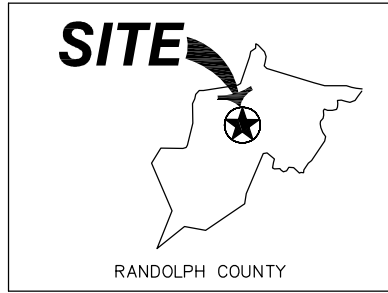
*All of the required forms and additional information can be found and downloaded from, the DEP website at Error! Hyperlink reference not valid. [www.dep.wv.gov/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.*

# **Attachment A**

## **Area Map**



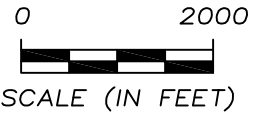
WEST VIRGINIA



RANDOLPH COUNTY



LAT. 38.3838 LON. -81.7809  
 T - R  
 CITY OF BEVERLY  
 RANDOLPH COUNTY  
 WEST VIRGINIA



## SITE LOCATION MAP

ADAPTED FROM USGS  
 BEVERLY WEST, WEST VIRGINIA, 1995

REVISIONS ARE TO BE MADE ON THE CADD FILE ONLY



**ARMSTRONG**  
 ROUTH 250 SOUTH  
 BEVERLY, WEST VIRGINIA

CADD Review D.F.  
 CHK'D D.F.  
 0137385

Drawn By  
 SAR 9/30/11

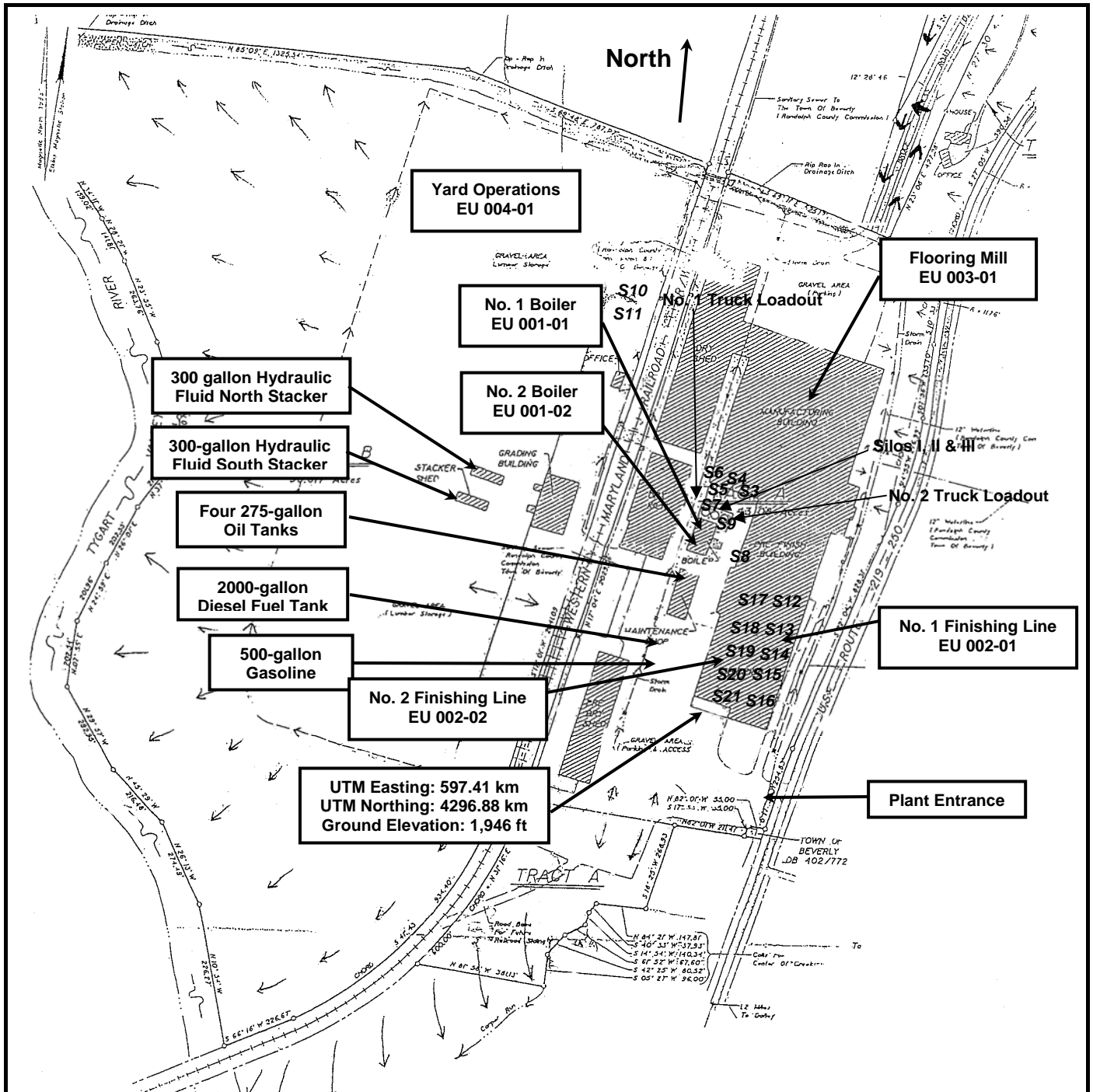
**Environmental Resources Management**

ATTACHMENT A

# **Attachment B**

## **Plot Plan**





# ATTACHMENT B PLOT PLAN

Approximate Scale 1" = 200'



ERM Delivering sustainable solutions in a more competitive world

## ARMSTRONG HARDWOOD FLOORING COMPANY

ROUTE 250 SOUTH  
BEVERLY, WV

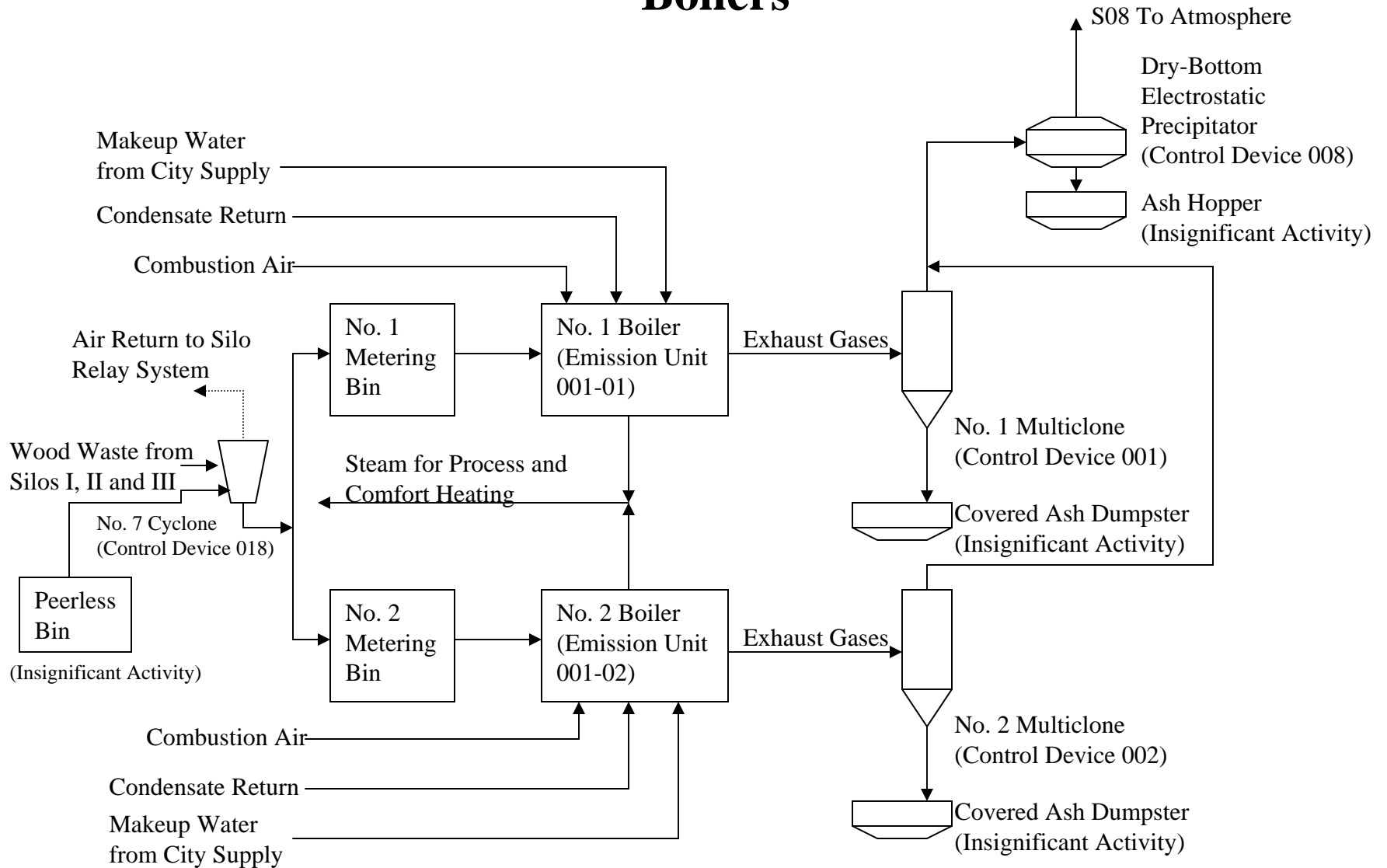
Title V Operating Permit Renewal  
Application

Permit No. R30-08300025-2007

**Attachment C**

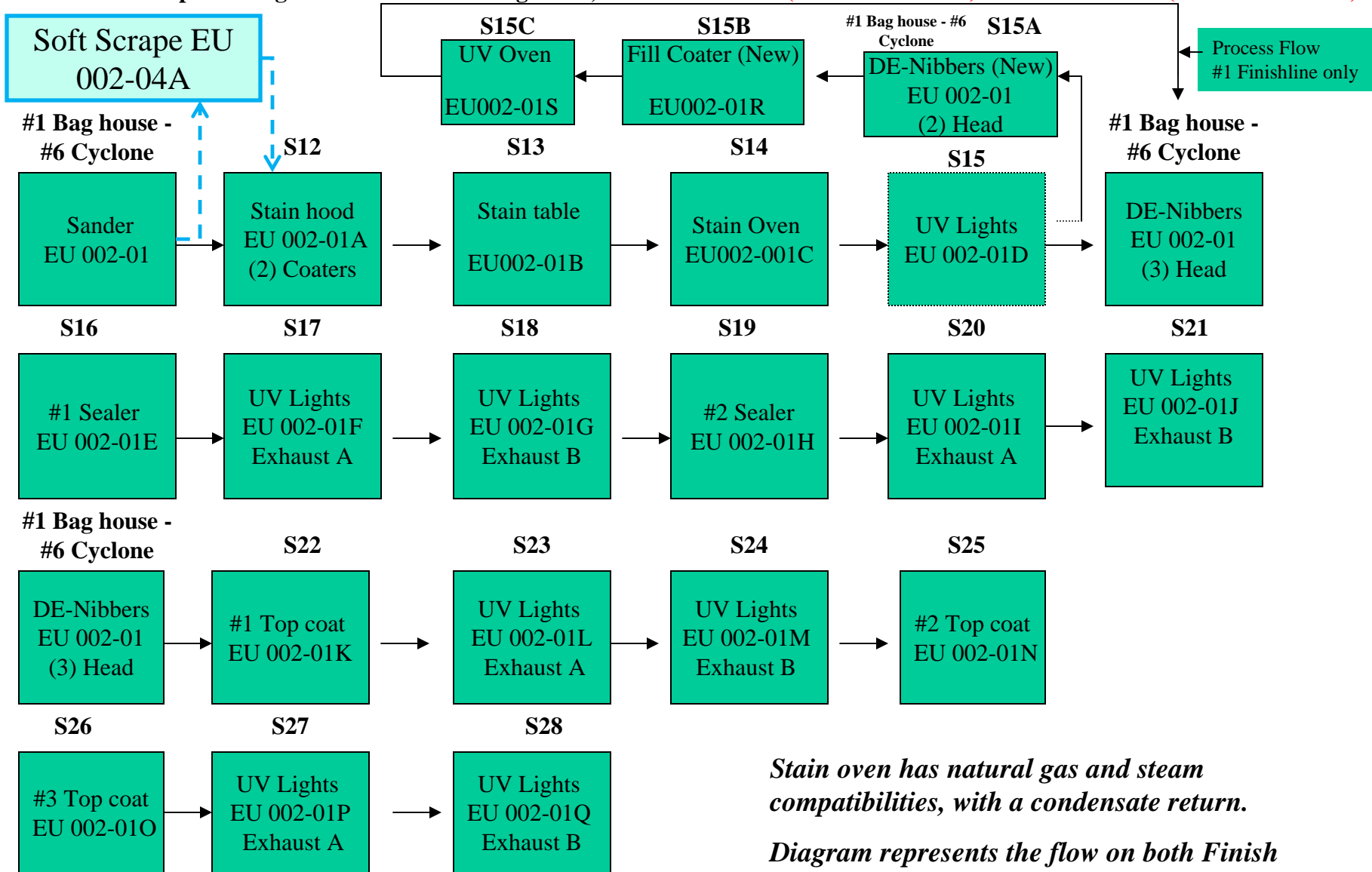
**Process Flow Diagrams**

# Attachment C-1. Process Flow Diagram for No. 1 and No. 2 Boilers



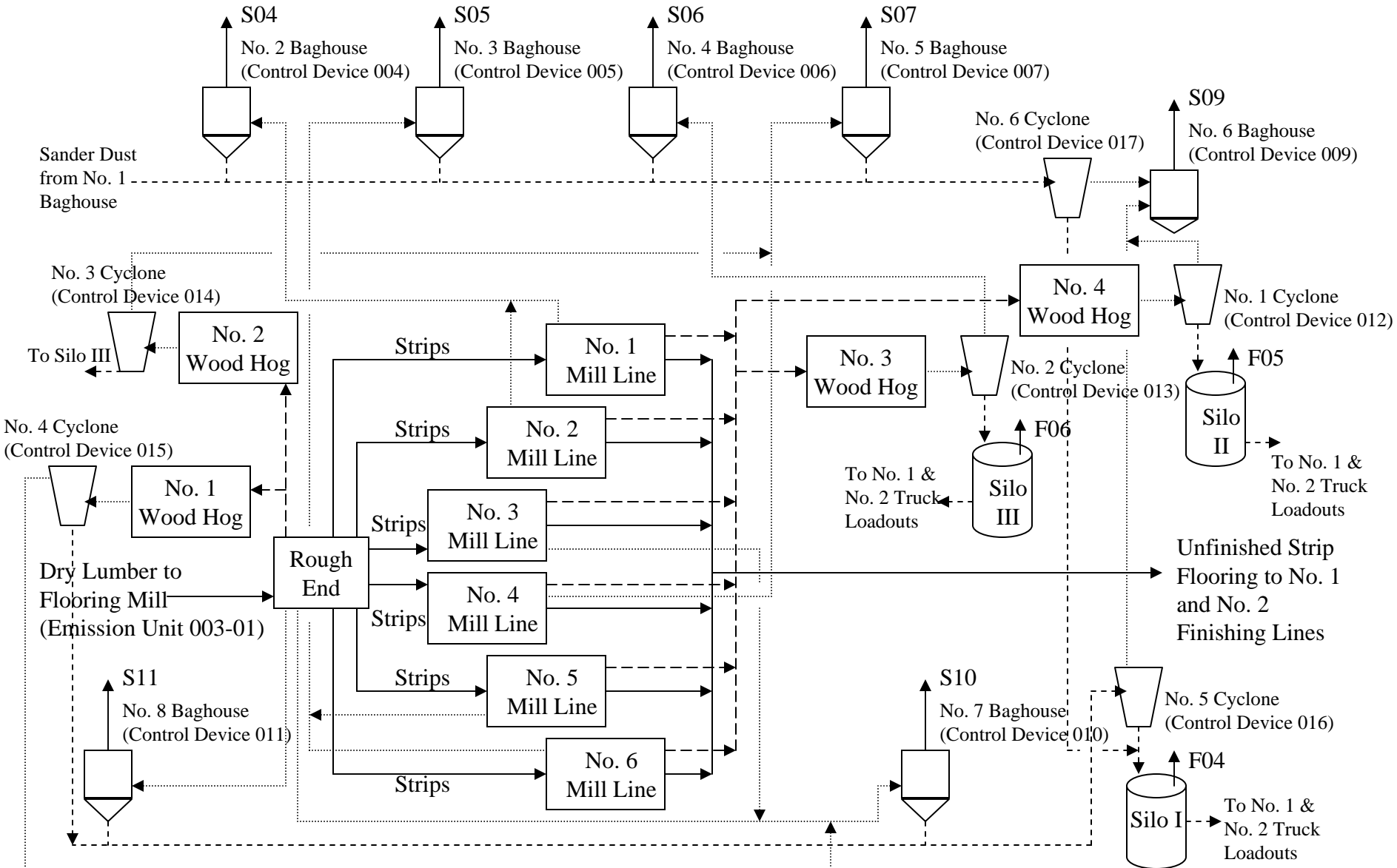
# Attachment C-2 Process Flow Diagram for No. 1 and No. 2 Finishing Lines

Unfinished Strip Flooring from Mill to **Finishing Lines, No. 1 Finish Line (EU 002-01 Series) No. 2 Finish Line (EU 002-02 Series)**

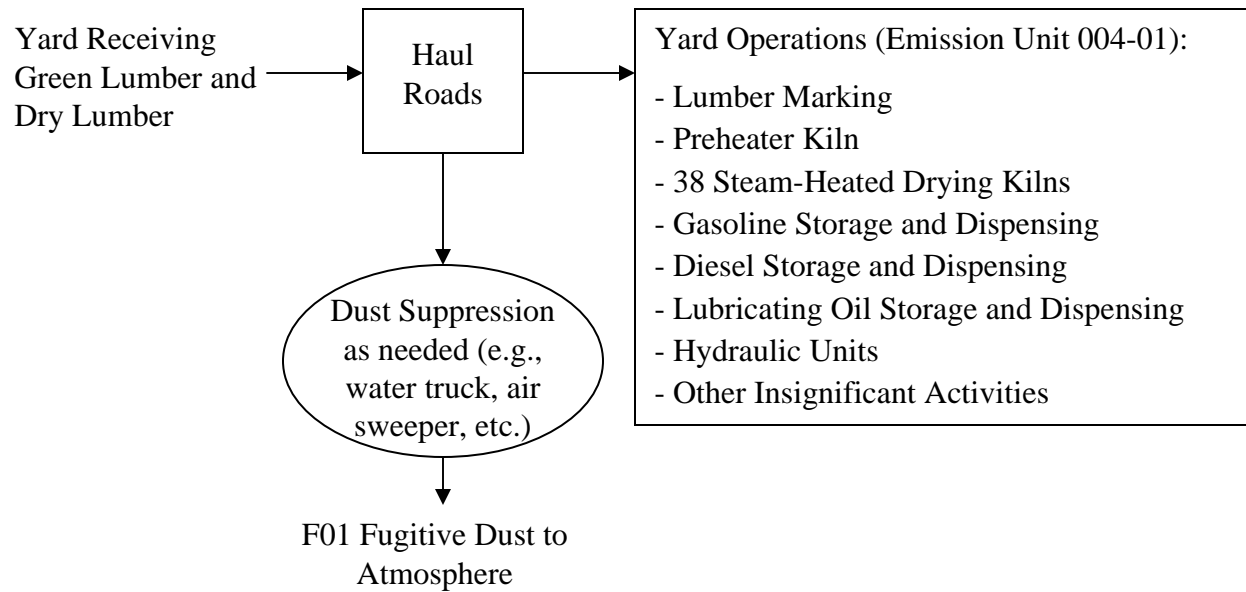




# Attachment C-3. Process Flow Diagram for Flooring Mill



# Attachment C-4. Process Flow Diagram for Yard Operations



**Attachment D**

**Equipment Tables**

**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
S08	Cyclone No. 2, Dry ESP (008)	001-01	No. 1 Wood-Fired Boiler	48.8 MMBtu/hr	1990
S08	Cyclone No. 2, Dry ESP (008)	001-02	No. 2 Wood-Fired Boiler	48.8 MMBtu/hr	1990
S30	N/A	001-03	Propane Gas -Fired Boiler	96.7 MMBtu/hr	2007
S03	No. 1 Baghouse (003)	002-01	No. 1 Finish Line	8,500 ft2/hr	1993
S12.01	N/A	002-01A	No. 1 Finish Line – Stain Rollcoaters	10.11 gal/hr	1993
S13.01	N/A	002-01B	Vacuum Stain Table	N/A	1993
S14.01	N/A	002-01C	No. 1 Finish Line – Stain Oven	1.6 MMBtu/hr	1993
S15.01	N/A	002-01D	UV Lights	300 Watts	1993
S15.01.1	Baghouse (003)	002-01D.1	No. 1 Finish Line – DE-Nibbers (3 Head)	NA	2009
S15.01.2	N/A	002-01D.2	Fill Coater	6 gal/hr	2009
S15.01.3	N/A	002-01D.3	UV Oven	300 Watts	2009
S15.01.4	Baghouse (003)	002-01D.4	No. 1 Finish Line –DE-Nibbers (3 Head)	NA	1993
S21.01.1	Baghouse (003)	002-01D.5	No. 1 Finish Line – DE-Nibbers (3 Head)	NA	1993
S16.01	N/A	002-01E	No. 1 Finish Line – Sealer #1	6.0 gal/hr	1993
S17.01	N/A	002-01F	UV Lights, Exhaust A	175-275 MJ	1993
S18.01	N/A	002-01G	UV Lights, Exhaust B	175-275 MJ	1993
S19.01	N/A	002-01H	No. 1 Finish Line – Sealer #2	6.0 gal/hr	1993
S20.01	N/A	002-01I	UV Lights, Exhaust A	450-650 MJ	1993
S21.01	N/A	002-01J	UV Lights, Exhaust B	450-650 MJ	1993
S22.01	N/A	002-01K	No. 1 Finish Line – Topcoat Rollcoater 1	6.0 gal/hr	1993
S23.01	N/A	002-01L	UV Lights, Exhaust A	175-275 MJ	1993
S24.01	N/A	002-01M	UV Lights, Exhaust B	175-275 MJ	1993

<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 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
S25.01	N/A	002-01N	No. 1 Finish Line – Topcoat Rollcoater 2	6.0 gal/hr	1993
S26.01	N/A	002-01O	No. 1 Finish Line – Topcoat Rollcoater 3	6.0 gal/hr	1993
S27.01	N/A	002-01P	UV Lights, Exhaust A	750-1000 MJ	1993
S28.01	N/A	002-01Q	UV Lights, Exhaust B	750-1000 MJ	1993
S03	No. 1 Baghouse (003)	002-02	No. 2 Finish Line	8,500 ft <sup>2</sup> /hr	1993
S12.02	N/A	002-02A	No. 2 Finish Line – Stain Rollcoaters (2 present, one operates at a time)	10.11 gal/hr	1993
S13.02	N/A	002-02B	Vacuum Stain Table	N/A	1993
S14.02	N/A	002-02C	No. 2 Finish Line – Stain Oven	1.6 MMBTU/hr	1993
S15.02	N/A	002-02D	UV Lights	300 Watts	1993
S16.02	N/A	002-02E	No. 2 Finish Line – Sealer #1	6.0 gal/hr	1993
S17.02	N/A	002-02F	UV Lights, Exhaust A	175-275 MJ	1993
S18.02	N/A	002-02G	UV Lights, Exhaust B	175-275 MJ	1993
S19.02	N/A	002-02H	No. 2 Finish Line – Sealer #2	6.0 gal/hr	1993
S20.02	N/A	002-02I	UV Lights, Exhaust A	450-650 MJ	1993
S21.02	N/A	002-02J	UV Lights, Exhaust B	450-650 MJ	1993
S15.02.1	Baghouse (003)	002-02J.1	No. 2 Finish Line –DE-Nibbers (3 Head)	NA	1993
S21.02.1	Baghouse (003)	002-02J.2	No. 2 Finish Line – DE-Nibbers (3 Head)	NA	1993
S22.02	N/A	002-02K	No. 2 Finish Line – Topcoat Rollcoater 1	6.0 gal/hr	1993
S23.02	N/A	002-02L	UV Lights, Exhaust A	175-275 MJ	1993
S24.02	N/A	002-02M	UV Lights, Exhaust B	175-275 MJ	1993
S25.02	N/A	002-02N	No. 2 Finish Line – Topcoat Rollcoater 2	6.0 gal/hr	1993
S26.02	N/A	002-02O	No. 2 Finish Line – Topcoat Rollcoater 3	6.0 gal/hr	1993
S27.02	N/A	002-02P	UV Lights, Exhaust A	750-1000 MJ	1993
S28.02	N/A	002-02Q	UV Lights, Exhaust B	750-1000 MJ	1993

<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 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
NA	Filtering System	002-03A	Wood Branding Device, Hood, Filtering System, and Sundry Equipment	60 ft2/hr (est. avg.)	2009
S12.04 connected to S03	Baghouse (003)	002-04A	Soft Scrape Cell	5,000 ft2/shift	2010
S04 – S11	Baghouses (004-007, 009-011)	003-01	Flooring Mill	29,500 ft2 per 8 hr shift (Output)	1990
F02	N/A	003-01	Flooring Mill – Truck Loadout No. 1 (including dust bins)	528 Tons/day	1991
F03	N/A	003-01	Flooring Mill – Truck Loadout No. 2 (including dust bins)	528 Tons/day	2005
F04	N/A	003-01	Flooring Mill – Silo I	195 Tons	1990
F05	N/A	003-01	Flooring Mill – Silo II	195 Tons	1990
F06	N/A	003-01	Flooring Mill – Silo III	195 Tons	1990
F01	N/A	004-01	Yard Operations – Haul Roads	0.86 Miles	1990
N/A	N/A	004-01	Yard Operations – Lumber Kilns (steam-heated predryer and 38 steam-heated lumber kilns to dry green lumber).	130,000,000 Board-ft/yr	Various
N/A	N/A	N/A	Edge coaters, parts washers, welding operations, solvent reclaim unit, and other trivial activities,	N/A	Various
<b>Control Devices</b>					
S08	N/A	008	Dry Electrostatic Precipitator – Services No. 1 & No. 2 Boilers	9.6 KW	2003
S03	N/A	003	No. 1 Baghouse (Services No. 1 and No. 2 Finish Line Sanders)	79,556 ACFM	1993
S04	N/A	004	No. 2 Baghouse (Services No. 1 & No. 2 Flooring Mill Lines)	50,373 ACFM	1990
S05	N/A	005	No. 3 Baghouse (Services No. 5 & No. 6 Flooring Mill Lines)	52,227 ACFM	1990
S06	N/A	006	No. 4 Baghouse (Services No. 3 Wood Hog (No. 3 Cyclone))	27,489 ACFM	1990

<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 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
S07	N/A	007	No. 5 Baghouse (Services No. 2 Wood Hog (No. 4 Cyclone) & No. 4 Flooring Mill Line)	43,551 ACFM	2003
S09	N/A	009	No. 6 Baghouse (Services No. 4 Wood Hog (No. 1 Cyclone) & No. 1 Wood Hog (No. 5 Cyclone))	59,748 ACFM	2005
S10	N/A	010	No. 7 Baghouse (Services No. 3 Flooring Mill Line, Rough End & No. 1 Wood Hog (No. 7 Cyclone))	52,990 ACFM	2005
S11	N/A	011	No. 8 Baghouse (Services Flooring Mill Rough End)	68,597 ACFM	2005
S09	N/A	012	No. 1 Cyclone (From No. 4 Wood Hog to Silo II)	24,100 ACFM	1990
S05	N/A	018	No. 2 Cyclone ( Boilers/ESP to Silo III)	27,489 ACFM	1990
S06	N/A	013	No. 3 Cyclone (From No. 3 Wood Hog to Silo III)	6,500 ACFM	2004
S07	N/A	014	No. 4 Cyclone (From No. 2 Wood Hog to No. 1 Cyclone)	16,157 ACFM	2005
S09	N/A	016	No. 5 Cyclone (From No. 7 Cyclone (No. 1 Wood Hog) to Silo I)	4,768 ACFM	2005
S09	N/A	017	No. 6 Cyclone (From No. 1, 2, 3, 4, & 5 Baghouses to No. 6 Baghouse)	27,490 ACFM	2005
S10	N/A	015	No. 7 Cyclone (From No. 1 Wood Hog, Exhaust to No. 7 Baghouse)	24,100 ACFM	2005

<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**



## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> 001-01	<b>Emission unit name:</b> No. 1 Boiler	<b>List any control devices associated with this emission unit:</b> 001 No. 1 Multiclone 008 Electrostatic Precipitator
---	--	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The No. 1 Boiler is a wood-fired boiler equipped with 7,600 square feet of heat surface for generating steam from the combustion of wood waste. Sawdust and wood waste from mill operations are collected in silos and burned as fuel in this boiler. The boiler is designed to generate a maximum of 37,110 pounds per hour of steam by burning a maximum of 6,445 pounds per hour of hogged fuel. The boiler is rated for 1,200 horsepower. Wood waste can contain trace amounts of stains and coating from plant processes.

<b>Manufacturer:</b> Industrial Boiler Co., Inc.	<b>Model number:</b> 3-7600-300	<b>Serial number:</b> H-7600-03
---	------------------------------------	------------------------------------

<b>Construction date:</b> 10/31/1989	<b>Installation date:</b> 04/01/1990	<b>Modification date(s):</b> 03/10/2003
---	---	--

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 48.8 million BTU per hour heat input.  
 37,110 pounds per hour steam production.  
 6,445 pounds per hour of hogged fuel feed to boiler.

<b>Maximum Hourly Throughput:</b> 48.8 MMBTU	<b>Maximum Annual Throughput:</b> 427,488 MMBTU	<b>Maximum Operating Schedule:</b> 8,760 hours per year
---	--	--

**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
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b> 6,445 pounds per hour of hogged fuel design input 1,200 horsepower.	<b>Type and Btu/hr rating of burners:</b> 1,200 horsepower HRT firetube 48.8 MMBTU per hour.
---	---

**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.**  
 Primary fuel is supplied by hogged fuel and/or planer shavings generated on site. The maximum hourly fuel usage is 6,445 pounds per hour of hogged fuel and the maximum annual fuel usage is 28,299 short tons of hogged fuel per year. There are no secondary fuels for this boiler.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Hogged Fuel	0.05%	0.75%	7,570

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	25.78	112.92
Nitrogen Oxides (NO <sub>x</sub> )	12.10	53.0
Lead (Pb)	0.002	0.01
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	1.95	8.55
Total Particulate Matter (TSP)	8.17	35.80
Sulfur Dioxide (SO <sub>2</sub> )	1.29	5.65
Volatile Organic Compounds (VOC)	4.51	19.76
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acrolein	0.20	0.88
Benzene	0.21	0.90
Formaldehyde	0.22	0.94
Hydrogen Chloride (HCl)	0.93	4.08
Total Aggregated HAPs *	1.88	8.23
* Includes non-speciated HAPs		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO <sub>2</sub> )	9,516	41,680
Methane (CH <sub>4</sub> )	0.63	2.78
Nitrous Oxide (N <sub>2</sub> O)	1.03	4.49
<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> <ul style="list-style-type: none"> <li>• Total particulate and PM-10 emission rates are based on emission factors for electrostatic precipitator from AP-42 Table 1.6-1, September 2003 revision.</li> <li>• Carbon monoxide, NO<sub>x</sub>, and sulfur dioxide emission rates are based on emission factors for dry wood-fired boilers from AP-42 Table 1.6-2, September 2003 revision.</li> <li>• Volatile organic compound and hazardous air pollutant emission rates are based on emission factors from AP-42 Table 1.6-3, September 2003 revision. VOC emissions are conservatively estimated using the emission factor for total organic carbon.</li> <li>• The lead emission rate is based on the emission factor from AP-42 Table 1.6-4, September 2003 revision.</li> <li>• All emission calculations are based on maximum boiler design heat input rate of 48.8 MMBTU per hour and 8,760 hours of operation per year.</li> </ul>		

**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.

**R13-1147 §4.1.1**

- Emissions controlled by electrostatic precipitator (ESP).
- Only Boiler 001-01 or 001-02 can be operated during unavoidable malfunction or maintenance of ESP.
- Keep records of ESP shutdown and which of two boilers operating during this period.

**R13-1147 §4.1.2**

- Maximum emissions from ESP limited to above rates.

**R13-1147 §4.1.5, §4.1.6, §4.1.7, and §4.1.8; 45CSR2 §3.1, §3.2, §3.3 §5.1, and §9.2**

- Opacity not to exceed 10% based on a six minute block average.
- Opacity requirement determined per 40CFR60, Appendix A, Method 9 or continuous opacity monitoring systems approved by Director.
- Director may approve alternate visible emission standard up to 30% for soot blowing or cleaning of fire box.
- Fugitive particulate matter sources require a fugitive particulate matter control system.
- During start-ups, shutdowns or malfunctions, maintain and operate boiler and ESP consistent with good air pollution control practice for minimizing emissions.

**R13-1147 §4.1.9; 45CSR10 §3.4.a**

- Individual stack shall not exceed 25% the emission rate determined by prorating total allowable emission rate specified by 45CSR10.

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 Requirements:*

- Perform weekly Method 22 visible emission reading during normal operations. If emissions observed during test, perform Method 9 reading as soon as practicable, but within 72 hours.
- Perform Method 9 visible emission reading during soot blowing operating if variance in limitation 4.1.7 applies.

*Testing Requirements:*

- Director may require testing or conduct testing to determine compliance.

*Recordkeeping Requirements:*

- Maintain records of visible emission monitoring data and opacity evaluations.
- Maintain records of operating schedule and the quantity and quality of wood consumed.

*Reporting Requirements:*

- Report violations of allowable visible emissions requirements within 10 days calendar days.
- Report malfunctions of boiler or ESP that results in excess particulate matter emissions or opacity in the time frame and manner per 45CSR2 §9.3.

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> 001-02	<b>Emission unit name:</b> No. 2 Boiler	<b>List any control devices associated with this emission unit:</b> 02 No. 2 Multiclone 008 Electrostatic Precipitator
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The No. 2 Boiler is a wood-fired boiler equipped with 7,600 square feet of heat surface for generating steam from the combustion of wood waste. Sawdust and wood waste from mill operations are collected in silos and burned as fuel in this boiler. The boiler is designed to generate a maximum of 37,110 pounds per hour of steam by burning a maximum of 6,445 pounds per hour of hogged fuel. The boiler is rated for 1,200 horsepower. Wood waste can contain trace amounts of stains and coatings from plant processes.

<b>Manufacturer:</b> Industrial Boiler Co., Inc.	<b>Model number:</b> 3-7600-300	<b>Serial number:</b> H-7600-03
<b>Construction date:</b> 10/31/1989	<b>Installation date:</b> 04/01/1990	<b>Modification date(s):</b> 03/10/2003

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 48.8 million BTU per hour heat input.  
 37,110 pounds per hour steam production.  
 6,445 pounds per hour of hogged fuel feed to boiler

<b>Maximum Hourly Throughput:</b> 48.8 MMBTU	<b>Maximum Annual Throughput:</b> 427,488 MMBTU	<b>Maximum Operating Schedule:</b> 8,760 hours per year
---	--	--

***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
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b> 6,445 pounds per hour of hogged fuel design input 1,200 horsepower.	<b>Type and Btu/hr rating of burners:</b> 1,200 horsepower HRT firetube 48.8 MMBTU per hour.
---	---

**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.**  
 Primary fuel is supplied by hogged fuel and/or planer shavings generated on site. The maximum hourly fuel usage is 6,445 pounds per hour of hogged fuel, and the maximum annual fuel usage is 28,299 short tons of hogged fuel per year. There are no secondary fuels for this boiler.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Hogged Fuel	0.05%	0.75%	7,570

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	25.78	112.92
Nitrogen Oxides (NO <sub>x</sub> )	12.10	53.0
Lead (Pb)	0.002	0.01
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	1.95	8.55
Total Particulate Matter (TSP)	8.17	35.80
Sulfur Dioxide (SO <sub>2</sub> )	1.29	5.65
Volatile Organic Compounds (VOC)	4.51	19.76
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Acrolein	0.20	0.88
Benzene	0.21	0.90
Formaldehyde	0.22	0.94
Hydrogen Chloride	0.93	4.08
Total Aggregated HAPs *	1.88	8.23
* Includes non-speciated HAPs		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO <sub>2</sub> )	9,516	41,680
Methane (CH <sub>4</sub> )	0.63	2.78
Nitrous Oxide (N <sub>2</sub> O)	1.03	4.49
<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> <ul style="list-style-type: none"> <li>• Total particulate and PM-10 emission rates are based on emission factors for electrostatic precipitator from AP-42 Table 1.6-1, September 2003 revision.</li> <li>• Carbon monoxide, NO<sub>x</sub>, and sulfur dioxide emission rates are based on emission factors for dry wood-fired boilers from AP-42 Table 1.6-2, September 2003 revision.</li> <li>• Volatile organic compound and hazardous air pollutant emission rates are based on emission factors from AP-42 Table 1.6-3, September 2003 revision. VOC emissions are conservatively estimated using the emission factor for total organic carbon.</li> <li>• The lead emission rate is based on the emission factor from AP-42 Table 1.6-4, September 2003 revision.</li> <li>• All emission calculations are based on maximum boiler design heat input rate of 48.8 MMBTU per hour and 8,760 hours of operation per year.</li> </ul>		

**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.

**R13-1147 §4.1.1**

- Emissions controlled by electrostatic precipitator (ESP).
- Only Boiler 001-01 or 001-02 can be operated during unavoidable malfunction or maintenance of ESP.
- Keep records of ESP shutdown and which of two boilers operating during this period.

**R13-1147 §4.1.2**

- Maximum emissions from ESP limited to above rates.

**R13-1147 §4.1.5, §4.1.6, §4.1.7, and §4.1.8; 45CSR2 §3.1, §3.2, §3.3 §5.1, and §9.2**

- Opacity not to exceed 10% based on a six minute block average.
- Opacity requirement determined per 40CFR60, Appendix A, Method 9 or continuous opacity monitoring systems approved by Director.
- Director may approve alternate visible emission standard up to 30% for soot blowing or cleaning of fire box.
- Fugitive particulate matter sources require a fugitive particulate matter control system.
- During start-ups, shutdowns or malfunctions, maintain and operate boiler and ESP consistent with good air pollution control practice for minimizing emissions.

**R13-1147 §4.1.9; 45CSR10 §3.4.a**

- Individual stack shall not exceed 25% the emission rate determined by prorating total allowable emission rate specified by 45CSR10.

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 Requirements:*

- Perform weekly Method 22 visible emission reading during normal operations. If emissions observed during test, perform Method 9 reading as soon as practicable, but within 72 hours.
- Perform Method 9 visible emission reading during soot blowing operating if variance in limitation 4.1.7 applies.

*Testing Requirements:*

- Director may require testing or conduct testing to determine compliance.

*Recordkeeping Requirements:*

- Maintain records of visible emission monitoring data and opacity evaluations.
- Maintain records of operating schedule and the quantity and quality of wood consumed.

*Reporting Requirements:*

- Report violations of allowable visible emissions requirements within 10 days calendar days.
- Report malfunctions of boiler or ESP that results in excess particulate matter emissions or opacity in the time frame and manner per 45CSR2 §9.3.

**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

<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b> 002-01	<b>Emission unit name:</b> No. 1 Finishing Line	<b>List any control devices associated with this emission unit:</b> 003 No. 1 Baghouse	
<p><b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b>                  Unfinished hardwood flooring is supplied to the No. 1 Finishing Line for sanding, staining, sealing, application of topcoat, and packaging for shipment. The No. 1 Line contains a stain rollcoater unit with stain applicators and a two-zone, natural gas-fired high velocity stain cure oven; a sealer rollcoater unit with hooded roll applicators and UV cure oven; a hooded topcoat rollcoater and UV cure oven; and two-stage hooded topcoat rollcoater.</p>			
<b>Manufacturer:</b> DuBois Machine Company	<b>Model number:</b> Custom	<b>Serial number:</b> 2909	
<b>Construction date:</b> 12/15/1993	<b>Installation date:</b> 12/15/1993	<b>Modification date(s):</b> 01/25/2005	
<p><b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> The No. 1 Finishing Line is designed to produce 59,600,000 square feet of finished hardwood flooring per year.</p>			
<b>Maximum Hourly Throughput:</b> 8,500 Square Feet	<b>Maximum Annual Throughput:</b> 59,600,000 Square Feet	<b>Maximum Operating Schedule:</b> 8,760 hours per year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<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	
<b>Maximum design heat input and/or maximum horsepower rating:</b> 1.6 MMBTU per hour		<b>Type and Btu/hr rating of burners:</b> 1,600,000 BTU per hour gas burner	
<p><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.</b>                  The two-zone, natural gas-fired high velocity stain cure oven has been converted to operate with indirect heat supplied by steam generated from emission units 001-01 and 001-02. When steam is not available to heat the stain cure oven, the oven can be heated by firing natural gas.</p>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	<2 grains per 1,000 scf	N/A	1,020 BTU/scf

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.13	0.58
Nitrogen Oxides (NO <sub>x</sub> )	0.16	0.69
Lead (Pb)	<0.001	<0.001
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	0.47 (Lines 1 & 2 Totals)	2.08 (Lines 1 & 2 Totals)
Total Particulate Matter (TSP)	2.37 (Lines 1 & 2 Totals)	10.38 (Lines 1 & 2 Totals)
Sulfur Dioxide (SO <sub>2</sub> )	0.001	0.004
Volatile Organic Compounds (VOC)	88.54 (Lines 1 & 2 Totals)	204.5 (Lines 1 & 2 Totals)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs (Lines 1 & 2)	5.64 Single HAP	7.94 Aggregated HAPs
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO <sub>2</sub> )	188	825
Methane (CH <sub>4</sub> )	0.005	0.02
Nitrous Oxide (N <sub>2</sub> O)	0.005	0.02
<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> <ul style="list-style-type: none"> <li>• Total particulate emissions are calculated from the baghouse air flow rate and the design exhaust grain loading for the No. 1 Baghouse.</li> <li>• The PM-10 emissions are calculated by multiplying the total particulate emissions by a factor of 0.20 (based on assumption that PM-10 is 20% of total particulate emissions).</li> <li>• Carbon monoxide, sulfur dioxide, lead and nitrogen oxide emissions are based on emission factors for natural gas combustion from AP-42 Tables 1.4-1 and 1.4-2, July 1998 revision.</li> <li>• VOC and HAP emissions are based on PPG Industries Environmental Data Sheets for worst-case emitting stains, sealers, and topcoats used by the facility.</li> <li>• Facility has VOC emissions cap of 204.5 tpy for both finishing lines.</li> </ul>		



***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.**

**R13-1147 §6.1.1, §6.1.2, §6.1.3, and §6.1.4**

- Particulate matter, VOC, and HAP emissions limited to above.

**R13-1147 §6.1.5**

- Finish Lines No. 1 and No. 2 are each limited to 8,500 ft<sup>2</sup>/hr. Compliance with annual process rate determined using 12 month rolling total.

**R13-1147 §6.1.6**

- Soft Scrape Cell (ID 002-04A) shall be connected to Finish Line No. 1 and only operated when one of the denibbers on Finish Line No. 1 is not operating.

**R13-1147 §6.1.7, §6.1.8, and §6.1.9; 45CSR7 §3.1, §3.7, and §5.1**

- Opacity not to exceed 20% except as noted in 45CSR7 Section 3.
- Visible emissions from any storage structure are required to have a full enclosure and equipment with particulate matter control device.
- Minimize particulate matter fugitive emissions from manufacturing process or storage structure by using process equipment design, control equipment design, or operation and maintenance procedures.

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.)**

*Monitoring Requirements:*

- Perform weekly Method 22 visible emission reading for emission point S03 during normal operations. If emissions observed during test, conduct opacity reading per 45CSR7A as soon as practicable, but within 72 hours.
- Operate and maintain No. 1 Baghouse in accordance with manufacturer's specification to ensure 99.9% control efficiency. Includes replacement of broken bags, proper fan operations, prompt replace of fans and duct work, and daily inspections. Baghouse's normal operating pressure drop range is 0.2 to 0.65 inches of water.
- Maintain monthly records of natural gas usage for Stain Ovens (002-01C and 002-02C). Maintain monthly records of Finish Lines No. 1 and No. 2 finished wood flooring production.

*Testing Requirements:*

- Director may require testing or conduct testing to determine compliance.

*Recordkeeping Requirements:*

- Maintain monthly records of name and usage of each material applied, VOC content of each material, and hours of operation of each coating line. Additionally, within 30 days of the end of the calendar month prepare summary report of the average hourly, monthly, and rolling 12 month VOC mass emission rates from the application of materials. Also, the hours of operation of material.

- Maintain monthly records of the name and material usage of each HAP containing material as applied, speciated HAP content of each material, and hours of operation of each coating line. Additionally, within 30 days of the end of the calendar month prepare summary report of the average hourly, monthly, and rolling 12 month aggregated and speciated HAP mass emission rates from the application of materials. Also, the hours of operation of material.
- Maintain records of the amount of material processed on Finish Line No. 1 and No. 2 respectively.
- Maintain records of all visible emission monitoring data.
- Maintain records of baghouse monitoring data involved with proper operations, daily inspections, and pressure drop reading.
- Maintain copies of MSDS, certified product data sheets, or manufacturer's formulations for each surface coating, fill coating, clean-up solvent, and other related materials.

*Reporting Requirements:*

- Report violations of allowable visible emissions requirements within 10 days calendar days.

**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

<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b> 002-02	<b>Emission unit name:</b> No. 2 Finishing Line	<b>List any control devices associated with this emission unit:</b> 003 No. 1 Baghouse	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Unfinished hardwood flooring is supplied to the No. 2 Finishing Line for sanding, staining, sealing, application of topcoat, and packaging for shipment. The No. 2 Line contains a stain rollcoater unit with stain applicators and a two-zone, natural gas-fired high velocity stain cure oven; a sealer rollcoater unit with hooded roll applicators and UV cure oven; a hooded topcoat rollcoater and UV cure oven; and two-stage hooded topcoat rollcoater.			
<b>Manufacturer:</b> DuBois Machine Company	<b>Model number:</b> Custom	<b>Serial number:</b> 3264	
<b>Construction date:</b> 12/15/1993	<b>Installation date:</b> 12/15/1993	<b>Modification date(s):</b> 01/25/2005	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> The No. 2 Finishing Line is designed to produce 59,600,000 square feet of finished hardwood flooring.			
<b>Maximum Hourly Throughput:</b> 8,500 Square Feet	<b>Maximum Annual Throughput:</b> 59,600,000 Square Feet	<b>Maximum Operating Schedule:</b> 8,760 hours per year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<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	
<b>Maximum design heat input and/or maximum horsepower rating:</b> 1.6 MMBTU per hour		<b>Type and Btu/hr rating of burners:</b> 1,600,000 BTU per hour gas burner	
<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.</b> The two-zone, natural gas-fired high velocity stain cure oven has been converted to operate with indirect heat supplied by steam generated from emission units 001-01 and 001-02. When steam is not available to heat the stain cure oven, the oven can be heated by firing natural gas.			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	<2 grains per 1,000 scf	N/A	1,020 BTU/scf

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.13	0.58
Nitrogen Oxides (NO <sub>x</sub> )	0.16	0.69
Lead (Pb)	<0.001	<0.001
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	0.47 (Lines 1 & 2 Total)	2.08 (Lines 1 & 2 Total)
Total Particulate Matter (TSP)	2.37 (Lines 1 & 2 Total)	10.38 (Lines 1 & 2 Total)
Sulfur Dioxide (SO <sub>2</sub> )	0.001	0.004
Volatile Organic Compounds (VOC)	88.54 (Lines 1 & 2 Total)	204.5 (Lines 1 & 2 Total)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs (Lines 1 & 2)	5.64 Single HAP	7.94 Aggregated HAPs
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO <sub>2</sub> )	188	825
Methane (CH <sub>4</sub> )	0.005	0.02
Nitrous Oxide (N <sub>2</sub> O)	0.005	0.02
<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> <ul style="list-style-type: none"> <li>• Total particulate emissions are calculated from the baghouse air flow rate and the design exhaust grain loading for the No. 1 Baghouse.</li> <li>• The PM-10 emissions are calculated by multiplying the total particulate emissions by a factor of 0.20 (based on assumption that PM-10 is 20% of total particulate emissions).</li> <li>• Carbon monoxide, sulfur dioxide, lead and nitrogen oxide emissions are based on emission factors for natural gas combustion from AP-42 Tables 1.4-1 and 1.4-2, July 1998 revision.</li> <li>• VOC and HAP emissions are based on PPG Industries Environmental Data Sheets for worst-case emitting stains, sealers, and topcoats used by the facility.</li> <li>• Facility has VOC emissions cap of 204.5 tpy for both finishing lines.</li> </ul>		

***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.

**R13-1147 §6.1.1, §6.1.2, §6.1.3, and §6.1.4**

- Particulate matter, VOC, and HAP emissions limited to above.

**R13-1147 §6.1.5**

- Finish Lines No. 1 and No. 2 are each limited to 8,500 ft<sup>2</sup>/hr. Compliance with annual process rate determined using 12 month rolling total.

**R13-1147 §6.1.6**

- Soft Scrape Cell (ID 002-04A) shall be connected to Finish Line No. 1 and only operated when one of the denibbers on Finish Line No. 1 is not operating.

**R13-1147 §6.1.7, §6.1.8, and §6.1.9; 45CSR7 §3.1, §3.7, and §5.1**

- Opacity not to exceed 20% except as noted in 45CSR7 Section 3.
- Visible emissions from any storage structure are required to have a full enclosure and equipment with particulate matter control device.
- Minimize particulate matter fugitive emissions from manufacturing process or storage structure by using process equipment design, control equipment design, or operation and maintenance procedures.

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.)**

*Monitoring Requirements:*

- Perform weekly Method 22 visible emission reading for emission point S03 during normal operations. If emissions observed during test, conduct opacity reading per 45CSR7A as soon as practicable, but within 72 hours.
- Operate and maintain No. 1 Baghouse in accordance with manufacturer's specification to ensure 99.9% control efficiency. Includes replacement of broken bags, proper fan operations, prompt replace of fans and duct work, and daily inspections. Baghouse's normal operating pressure drop range is 0.2 to 0.65 inches of water.
- Maintain monthly records of natural gas usage for Stain Ovens (002-01C and 002-02C). Maintain monthly records of Finish Lines No. 1 and No. 2 finished wood flooring production.

*Testing Requirements:*

- Director may require testing or conduct testing to determine compliance.

*Recordkeeping Requirements:*

- Maintain monthly records of name and usage of each material applied, VOC content of each material, and hours of operation of each coating line. Additionally, within 30 days of the end of the calendar month prepare summary report of the average hourly, monthly, and rolling 12 month VOC mass emission rates from the application of materials. Also, the hours of operation of material.

- Maintain monthly records of the name and material usage of each HAP containing material as applied, speciated HAP content of each material, and hours of operation of each coating line. Additionally, within 30 days of the end of the calendar month prepare summary report of the average hourly, monthly, and rolling 12 month aggregated and speciated HAP mass emission rates from the application of materials. Also, the hours of operation of material.
- Maintain records of the amount of material processed on Finish Line No. 1 and No. 2 respectively.
- Maintain records of all visible emission monitoring data.
- Maintain records of baghouse monitoring data involved with proper operations, daily inspections, and pressure drop reading.
- Maintain copies of MSDS, certified product data sheets, or manufacturer's formulations for each surface coating, fill coating, clean-up solvent, and other related materials.

*Reporting Requirements:*

- Report violations of allowable visible emissions requirements within 10 days calendar days.

**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> 003-01	<b>Emission unit name:</b> Flooring Mill	<b>List any control devices associated with this emission unit:</b> 004, 005, 006, 007, 009, 010, 011, and 012-018
---	---	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Flooring Mill consists of six (6) lines where cutting, planing, and edging operations are performed to convert kiln-dried hardwood lumber into unfinished hardwood flooring. The kiln-dried lumber is fed to the rough end for preliminary sorting, cutting, and sizing and then to one of the six processing lines. The Flooring Mill also includes several hogs, three hogged fuel silos, and two truck loadouts for hogged fuel.

<b>Manufacturer:</b> Custom	<b>Model number:</b> Custom	<b>Serial number:</b> Various
<b>Construction date:</b> 06/06/1990	<b>Installation date:</b> 06/06/1990	<b>Modification date(s):</b> 01/25/2005

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 The Flooring Mill is designed to convert 163,800,000 board-feet of kiln-dried lumber into 109,200,000 square feet of unfinished hardwood flooring per year.

<b>Maximum Hourly Throughput:</b> 29,500 Sq. Ft/8 Hours/Line	<b>Maximum Annual Throughput:</b> 163,800,000 Board-Feet	<b>Maximum Operating Schedule:</b> 8,760 hours per year
---	---	--

**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> N/A	<b>Type and Btu/hr rating of burners:</b> N/A

**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.**  
 N/A - Steam generated by emission units 001-01 and 001-02 is used to heat the building where the unfinished flooring is produced.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	3.53	15.6
Total Particulate Matter (TSP)	17.75	77.8
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A		
<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> <ul style="list-style-type: none"> <li>• Total particulate emissions are calculated from the baghouse air flow rate and the design exhaust grain loading for the No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, and No. 8 Baghouses. The sum of the emission rates for the seven baghouses comprises the total particulate emission rate from the Flooring Mill.</li> <li>• The PM-10 emissions are calculated by multiplying the total particulate emissions by a factor of 0.20 (based on assumption that PM-10 is 20% of total particulate emissions).</li> </ul>		



### *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.

#### **R13-1147 §5.1.1**

- Sum of emissions from baghouses No. 2 through No. 8 limited to above.

#### **R13-1147 §5.1.2**

- Cyclone systems (control device IDs 012 -017 maintained and operated in accordance with manufacturer's performance specifications.

#### **R13-1147 §5.1.3, §5.1.4, and §5.1.5; 45CSR7 §3.1, §3.7, §5.1, and §9.1**

- Opacity not to exceed 20% except as noted in 45CSR7 Section 3.
- Visible emissions from any storage structure are required to have a full enclosure and equipment with particulate matter control device.
- Minimize particulate matter fugitive emissions from manufacturing process or storage structure by using process equipment design, control equipment design, or operation and maintenance procedures.
- Emissions exceeding 45CSR7 limits due to unavoidable malfunction may be permitted by the Director not to exceed 10 days. Application made within 24 hours of malfunction. Additional time may be granted by the Director for major equipment failure.

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 Requirements:*

- Perform weekly Method 22 visible emission reading for emission points S3, S4, S5, S6, S7, S9, S10, S11 during normal operations. If emissions observed during test, conduct opacity reading per 45CSR7A as soon as practicable, but within 72 hours.
- Operate and maintain each baghouse in accordance with manufacturer's specification to ensure 99.9% control efficiency. Includes replacement of broken bags, proper fan operations, prompt replace of fans and duct work, and daily inspections. Each baghouse's normal operating pressure drop range is 0.2 to 0.65 inches of water.

#### *Testing Requirements:*

- Director may require testing or conduct testing to determine compliance.

#### *Recordkeeping Requirements:*

- Maintain records of visible emission monitoring data and opacity evaluations.
- Maintain records of monitoring data involved with proper operation, daily inspections, and pressure drop readings.

#### *Reporting Requirements:*

- Report violations of allowable visible emissions requirements within 10 days calendar days.

**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

<b>ATTACHMENT E - Emission Unit Form</b>			
<i>Emission Unit Description</i>			
<b>Emission unit ID number:</b> 004-01	<b>Emission unit name:</b> Yard Operations	<b>List any control devices associated with this emission unit:</b>  N/A	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Yard operations consist of receiving green lumber, transfer of green lumber to the pre-dryer and/or lumber kilns, and transfer of dried lumber from the lumber kilns to dry storage. The mill operates one steam-heated pre-dryer and 38 steam-heated lumber kilns to dry green lumber for further processing in the mill and finishing lines. Rolling stock transport of lumber results in the generation of fugitive particulate emissions.			
<b>Manufacturer:</b> Brunner Hildebrand	<b>Model number:</b> Custom	<b>Serial number:</b> Various	
<b>Construction date:</b> 01/02/1990	<b>Installation date:</b> 01/02/1990	<b>Modification date(s):</b> 04/26/2000	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> The pre-dryer is designed for 1,600,000 board-feet per charge (charge cycle is approximately 35 days). Each of the 38 lumber kilns is designed for 102,000 board-feet per charge (charge cycle normally averages 15 days).			
<b>Maximum Hourly Throughput:</b> 14,840 Board-Feet	<b>Maximum Annual Throughput:</b> 130,000,000 Board-Feet	<b>Maximum Operating Schedule:</b> 8,760 hours per year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No		<b>If yes, is it?</b>  ___ Indirect Fired <u>X</u> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> N/A		<b>Type and Btu/hr rating of burners:</b> N/A	
<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.</b> N/A - Steam generated by emission units 001-01 and 001-02 is used to heat the pre-dryer and lumber kilns indirectly. Because none of the kilns is direct-fired, this emission unit does not consume any fuels.			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	6.15	20.1
Total Particulate Matter (TSP)	23.7	77.4
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A		

**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.).**

- Total particulate and PM-10 emissions are calculated using the average vehicle weight of the 14 rolling stock vehicles operated by the facility and the emission factor empirical formula provided by AP-42 Section 13.2.2 Equation 1a (December 2003). The surface material silt content is assumed to be 8.4% from Table 13.2.2-1 for lumber sawmills. Calculations assume 0.86 vehicle miles traveled per hour and operation for 8,760 hours per year.

***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.**

N/A

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.)**

N/A

**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 F**

**Schedule of Compliance**

**Schedule of Compliance is Not Applicable**

<b>ATTACHMENT F - Schedule of Compliance Form</b>	
<p>Complete this section if you indicated noncompliance with any of the applicable requirements identified in the permit application. For each emission unit which is not in compliance, identify the applicable requirement, the reason(s) for noncompliance, a description of how the source will achieve compliance, and a detailed schedule of compliance. If there is a consent order that applies to this requirement, attach a copy to this form.</p>	
<b>1. Applicable Requirement</b>	
<b>Unit(s):</b>	<b>Applicable Requirement:</b>
<b>2. Reason for Noncompliance:</b>	
<b>3. How will Compliance be Achieved?</b>	
<b>4. Consent Order Number (if applicable):</b>	
<b>5. Schedule of Compliance.</b> Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.	
Remedial Measure or Action	Date to be Achieved
<b>6. Submittal of Progress Reports.</b>	
<b>Content of Progress Report:</b>	<b>Report starting date:</b> MM/DD/YYYY
	<b>Submittal frequency:</b>

## **Attachment G**

### **Air Pollution Control Device Forms**

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 001	<b>List all emission units associated with this control device.</b> 001-01 No. 1 Boiler
---	--

<b>Manufacturer:</b> Industrial Boiler Co., Inc..	<b>Model number:</b> 86 Tube High Energy	<b>Installation date:</b> 04/01/1990
--	---	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input checked="" type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	100%	50%
PM-10	100%	50%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 1 Multiclone was modified in 2003 following installation of the electrostatic precipitator. Formerly two chambers with 86 tubes each, the No. 1 Multiclone now consists of a single chamber with 86 tubes. The No. 1 Multiclone vents treated gases to the electrostatic precipitator for additional removal of particulate matter. The No. 1 Multiclone design flow rate is 18,800 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

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



## ATTACHMENT G - Air Pollution Control Device Form

**Control device ID number:**  
002

**List all emission units associated with this control device.**  
001-02 No. 2 Boiler

**Manufacturer:**  
Industrial Boiler Co., Inc.

**Model number:**  
86 Tube High Energy

**Installation date:**  
04/01/1990

**Type of Air Pollution Control Device:**

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Baghouse/Fabric Filter               | <input type="checkbox"/> Venturi Scrubber      | <input checked="" type="checkbox"/> Multiclone                |
| <input type="checkbox"/> Carbon Bed Adsorber                  | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone                       |
| <input type="checkbox"/> Carbon Drum(s)                       | <input type="checkbox"/> Other Wet Scrubber    | <input type="checkbox"/> Cyclone Bank                         |
| <input type="checkbox"/> Catalytic Incinerator                | <input type="checkbox"/> Condenser             | <input type="checkbox"/> Settling Chamber                     |
| <input type="checkbox"/> Thermal Incinerator                  | <input type="checkbox"/> Flare                 | <input type="checkbox"/> Other (describe)                     |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator |  | <input type="checkbox"/> 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	100%	50%
PM-10	100%	50%

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

The No. 2 Multiclone was modified in 2003 following installation of the electrostatic precipitator. Formerly two chambers with 86 tubes each, the No. 2 Multiclone now consists of a single chamber with 86 tubes. The No. 2 Multiclone vents treated gases to the electrostatic precipitator for additional removal of particulate matter. The No. 2 Multiclone design flow rate is 18,800 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

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

N/A

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 003	<b>List all emission units associated with this control device.</b> 004-01 No. 1 Finishing Line 004-02 No. 2 Finishing Line
---	---

<b>Manufacturer:</b> MAC Equipment, Inc.	<b>Model number:</b> 144MCF756	<b>Installation date:</b> 06/06/1990
---	-----------------------------------	---

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	99.9%	99.7%
PM-10	99.9%	99.7%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 1 Baghouse controls sanderdust emissions from the No. 1 and No. 2 Finishing Lines. The baghouse is equipped with 10,962 square feet of cloth area and operates with an air-to-cloth ratio of 7.3 to 1. The design air flow rate from the baghouse is 79,556 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 Pressure drop range of 0.2 to 6.5 inches of water column.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 004	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> MAC Equipment, Inc.	<b>Model number:</b> 144MCF572	<b>Installation date:</b> 06/06/1990
---	-----------------------------------	---

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	99.9%	99.7%
PM-10	99.9%	99.7%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 2 Baghouse controls sawing and planer dust emissions from the Flooring Mill. The baghouse is equipped with 8,294 square feet of cloth area and operates with an air-to-cloth ratio of 6.1 to 1. The design air flow rate from the baghouse is 50,373 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 Pressure drop range of 0.2 to 6.5 inches of water column.

**ATTACHMENT G - Air Pollution Control Device Form**

**Control device ID number:**  
005

**List all emission units associated with this control device.**  
003 Mill Operations

**Manufacturer:**  
MAC Equipment, Inc.

**Model number:**  
144MCF572

**Installation date:**  
06/06/1990

**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	99.9%	99.7%
PM-10	99.9%	99.7%

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

The No. 3 Baghouse controls sawing and planer dust emissions from the Flooring Mill. The baghouse is equipped with 8,294 square feet of cloth area and operates with an air-to-cloth ratio of 6.3 to 1. The design air flow rate from the baghouse is 52,227 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

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

Pressure drop range of 0.2 to 6.5 inches of water column.

**ATTACHMENT G - Air Pollution Control Device Form**

<b>Control device ID number:</b> 006	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> MAC Equipment, Inc.	<b>Model number:</b> 144MCF255	<b>Installation date:</b> 06/06/1990
---	-----------------------------------	---

**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	99.9%	99.7%
PM-10	99.9%	99.7%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 4 Baghouse controls emissions from the No. 2 Cyclone (Red Wood Hog). The baghouse is equipped with 3,698 square feet of cloth area and operates with an air-to-cloth ratio of 7.4 to 1. The design air flow rate from the baghouse is 27,489 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

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

Pressure drop range of 0.2 to 6.5 inches of water column.

## ATTACHMENT G - Air Pollution Control Device Form

**Control device ID number:**  
007

**List all emission units associated with this control device.**  
003 Mill Operations

**Manufacturer:**  
MAC Equipment, Inc.

**Model number:**  
144MPH494-475

**Installation date:**  
05/15/2003

**Type of Air Pollution Control Device:**

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter    | <input type="checkbox"/> Venturi Scrubber      | <input type="checkbox"/> Multiclone                           |
| <input type="checkbox"/> Carbon Bed Adsorber                  | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone                       |
| <input type="checkbox"/> Carbon Drum(s)                       | <input type="checkbox"/> Other Wet Scrubber    | <input type="checkbox"/> Cyclone Bank                         |
| <input type="checkbox"/> Catalytic Incinerator                | <input type="checkbox"/> Condenser             | <input type="checkbox"/> Settling Chamber                     |
| <input type="checkbox"/> Thermal Incinerator                  | <input type="checkbox"/> Flare                 | <input type="checkbox"/> Other (describe)                     |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator |  | <input type="checkbox"/> 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	99.9%	99.7%
PM-10	99.9%	99.7%

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

The No. 5 Baghouse controls emissions from the No. 3 Cyclone (5/16" Hog) and the No. 4 Line. The No. 5 Baghouse is equipped with 6,887 square feet of cloth area and operates with an air-to-cloth ratio of 6.3 to 1. The design air flow rate from the baghouse is 43,551 cubic feet per minute. Optimum pressure drop across the No. 5

**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.** Applicable CAM rules already applied to facility.

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

Pressure drop range of 0.2 to 6.5 inches of water column.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 008	<b>List all emission units associated with this control device.</b> 001-01 No. 1 Boiler 001-02 No. 2 Boiler
---	---

<b>Manufacturer:</b> PPC Industries	<b>Model number:</b> 11R-1124-1712S	<b>Installation date:</b> 07/23/2003
--	--	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input checked="" type="checkbox"/> 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	100%	99.9%
PM-10	100%	99.9%

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

The electrostatic precipitator controls emissions from the No. 1 Boiler and the No. 2 Boiler. The No. 1 Multiclone and the No. 2 Multiclone vents have been collected for additional particulate control in the electrostatic precipitator. The electrostatic precipitator is designed for an operating power of 9.6 kilowatts, an exhaust flow rate of 25,044 cubic feet per minute, and a pressure drop of 0.5 inches of water column.

**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.** Applicable CAM rules already applied to facility.

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

- Minimum secondary voltage of 20kv
- Minimum secondary amperate of 20 milliamps.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 009	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Ligna-Con, LLC	<b>Model number:</b> 16.5-700-12 Super Can	<b>Installation date:</b> 05/01/2005
--	---	---

**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	99.9%	99.7%
PM-10	99.9%	99.7%

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

The No. 6 Baghouse controls emissions from the No. 1, No. 5, and No. 6 Cyclones. The No. 6 Baghouse is equipped with 10,150 square feet of cloth area and operates with an air-to-cloth ratio of 5.9 to 1. The design air flow rate from the baghouse is 59,748 cubic feet per minute. Optimum pressure drop across the No. 6 Baghouse is 0.75 to 5.0 inches of water column.

**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.** Applicable CAM rules already applied to facility.

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

Pressure drop range of 0.2 to 6.5 inches of water column.



## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 010	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Ligna-Con, LLC	<b>Model number:</b> 14.5-500-12	<b>Installation date:</b> 05/01/2005
--	-------------------------------------	---

**Type of Air Pollution Control Device:**

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter    | <input type="checkbox"/> Venturi Scrubber                     | <input type="checkbox"/> Multiclone       |
| <input type="checkbox"/> Carbon Bed Adsorber                  | <input type="checkbox"/> Packed Tower Scrubber                | <input type="checkbox"/> Single Cyclone   |
| <input type="checkbox"/> Carbon Drum(s)                       | <input type="checkbox"/> Other Wet Scrubber                   | <input type="checkbox"/> Cyclone Bank     |
| <input type="checkbox"/> Catalytic Incinerator                | <input type="checkbox"/> Condenser                            | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator                  | <input type="checkbox"/> Flare                                | <input type="checkbox"/> Other (describe) |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> 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	99.9%	99.9%
PM-10	99.9%	99.9%

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

The No. 7 Baghouse controls emissions from the No. 3 Line, the No. 4 Cyclone, and the Rough End. The No. 7 Baghouse is equipped with 7,250 square feet of cloth area and operates with an air-to-cloth ratio of 6.9 to 1. The design air flow rate from the baghouse is 52,990 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

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

Pressure drop range of 0.2 to 6.5 inches of water column.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 011	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Ligna-Con, LLC	<b>Model number:</b> 16.5-700-12 Super Can	<b>Installation date:</b> 06/06.1990
--	---	---

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	99.9%	99.9%
PM-10	99.9%	99.9%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 8 Baghouse controls emissions from the Line No. 6 Splitter and the Rough End. The No. 8 Baghouse is equipped with 10,150 square feet of cloth area and operates with an air-to-cloth ratio of 4.1 to 1. The design air flow rate from the baghouse is 68,597 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 Pressure drop range of 0.2 to 6.5 inches of water column.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 012	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Air Conveying, Inc.	<b>Model number:</b> Unknown	<b>Installation date:</b> 06/06/1990
---	---------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	99.9%	Unknown
PM-10	99.9%	Unknown

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 1 Cyclone controls emissions from the Blue Wood Hog. The No. 1 Cyclone is designed for an air flow rate of 24,100 cubic feet per minute. Emissions from the No. 1 Cyclone are vented to the No. 6 Baghouse for additional control of particulate matter.

**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.** Applicable CAM rules already applied to facility.

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

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 013	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Air Conveying, Inc.	<b>Model number:</b> 144" Diameter	<b>Installation date:</b> 06/06/1990
---	---------------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	95%	95%
PM-10	95%	95%

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

The No. 2 Cyclone controls emissions from the Red Wood Hog. The No. 2 Cyclone is designed for an air flow rate of 27,489 cubic feet per minute and a pressure drop of 2 inches water column. Emissions from the No. 2 Cyclone are vented to the No. 4 Baghouse for additional control of particulate matter.

**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.** Applicable CAM rules already applied to facility.

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

N/A

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 014	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Bruning and Federle	<b>Model number:</b> 22C15	<b>Installation date:</b> 03/15/2004
---	-------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	97%	97%
PM-10	97%	97%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 3 Cyclone controls emissions from the 5/16" Hog. The No. 3 Cyclone is designed for an air flow rate of 6,500 cubic feet per minute and a pressure drop of 2 inches water column. Emissions from the No. 3 Cyclone are vented to the No. 5 Baghouse for additional control of particulate matter.

**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.** Applicable CAM rules already applied to facility.

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

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 015	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Associated Metal Works	<b>Model number:</b> 120" Diameter	<b>Installation date:</b> 05/01/2005
--	---------------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	97%	97%
PM-10	97%	97%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 4 Cyclone controls emissions from the 3/4" Hog. The No. 4 Cyclone is designed for an air flow rate of 16,157 cubic feet per minute and a pressure drop of 2 inches water column. Emissions from the No. 4 Cyclone are vented to the No. 7 Baghouse for additional control of particulate matter.

**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.** Applicable CAM rules already applied to facility.

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

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 016	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Associated Metal Works	<b>Model number:</b> 64" Diameter	<b>Installation date:</b> 05/01/2005
--	--------------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	97%	97%
PM-10	97%	97%

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

The No. 5 Cyclone controls emissions from the relay of dust from the No. 7 and No. 8 Baghouses. The No. 5 Cyclone has a design air flow rate of 4,768 cubic feet per minute and a pressure drop of 2 inches water column. Emissions from the No. 5 Cyclone are vented to the No. 6 Baghouse for additional control of particulate matter.

**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.** Applicable CAM rules already applied to facility.

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

N/A

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 017	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Associated Metal Works	<b>Model number:</b> 152" Diameter	<b>Installation date:</b> 05/01/2005
--	---------------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	97%	97%
PM-10	97%	97%

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The No. 6 Cyclone controls emissions from the relay of dust from the Nos. 1, 2, 3, 4, & 5 Baghouses. The No. 6 Cyclone has a design air flow rate of 27,490 cubic feet per minute and a pressure drop of 2 inches water column. Emissions from the No. 6 Cyclone are vented to the No. 6 Baghouse for additional control of particulate matter.

**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.** Applicable CAM rules already applied to facility.

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



## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 018	<b>List all emission units associated with this control device.</b> 003 Mill Operations
---	--

<b>Manufacturer:</b> Unknown	<b>Model number:</b> Unknown	<b>Installation date:</b> 06/06.1990
---------------------------------	---------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe)
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	95%	95%
PM-10	95%	95%

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

The No. 7 Cyclone controls emissions from the transfer of hogged fuel from the silos to the metering bins for the No. 1 and No. 2 Boilers. Exhaust air from the cyclone is returned to the silo relay system for transport of hogged fuel to the metering bins. The cyclone has an estimated design air flow rate of 24,100 cubic feet per minute.

**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.** Applicable CAM rules already applied to facility

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

N/A

## **Attachment H**

### **Compliance Assurance Monitoring**

Applicable CAM rules have already been implemented at this facility.

## ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

### CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*):  YES  NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

#### LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
  - Stratospheric Ozone Protection Requirements.
  - Acid Rain Program Requirements.
  - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
  - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
  - d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
  - e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

### BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

**RENEWAL APPLICATION.** **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal. **EXISTING SUBJECT FACILITY IS ALREADY INCLUDED IN CAM PLAN**

**INITIAL APPLICATION** (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

**SIGNIFICANT MODIFICATION TO LARGE PSEUs.** **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, **Only** address the appropriate monitoring requirements affected by the significant modification.

**3) <sup>a</sup> BACKGROUND DATA AND INFORMATION**

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	<sup>b</sup> EMISSION LIMITATION or STANDARD	<sup>c</sup> MONITORING REQUIREMENT
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

<sup>a</sup> If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

<sup>b</sup> Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

<sup>c</sup> Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

**CAM MONITORING APPROACH CRITERIA**

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation:	4b) Pollutant:	4c) <sup>a</sup> Indicator No. 1:	4d) <sup>a</sup> Indicator No. 2:
<b>5a) GENERAL CRITERIA</b> Describe the <u>MONITORING APPROACH</u> used to measure the indicators:			
<sup>b</sup> Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
<b>5b) PERFORMANCE CRITERIA</b> Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:			
<sup>c</sup> For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:			
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
<sup>d</sup> Provide the <u>MONITORING FREQUENCY</u> :			
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:			
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:			

<sup>a</sup> Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

<sup>b</sup> Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

<sup>c</sup> The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

<sup>d</sup> Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

**RATIONALE AND JUSTIFICATION**

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:

6b) Regulated Air Pollutant:

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

Existing applicable facility sources have already included in a CAM Plan.