

**Cover Document
Confidential Information**

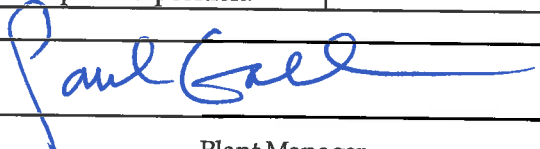
**Application for NSR Permit and Title V Permit Revision
American Woodmark Corporation, South Branch
Moorefield, West Virginia
August Mack Project Number JQ0600.253**



Company Name	American Woodmark Corporation, South Branch	Responsible Official		
Company Address	587 Robert C. Byrd Industrial Park Road, Moorefield, WV 26836	Confidential Information Designee in State of West Virginia	Name	Paul Gall
			Title	Plant Manager
Person/Title Submitting Confidential Information	Todd Regula		Address	587 Robert C. Byrd Industrial Park Road, Moorefield, WV 26836
	Corporate Environmental, Health, and Safety Manager		Phone	(304) 530-1100

Reason for Submittal of Confidential Information: The confidential information is being submitted as a part of the application for NSR Permit and Title V Permit revision.

Identification of Confidential Information	Rationale for Confidential Claim	Confidential Treatment Time Period
Attachment E - Plot Plan	Disclosure of the confidential information is likely to cause substantial harm to American Woodmark Corporation's competitive position.	Permanently

Responsible Official Signature:	
Responsible Official Title:	Plant Manager
Date Signed:	4/29/16



717.399.9587 • www.augustmack.com
941 Wheatland Avenue, Suite 202 • Lancaster, Pennsylvania 17603

April 29, 2016

William F. Durham, Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

**Re: Application for Title V Permit Renewal
American Woodmark Corporation, South Branch
Moorefield, West Virginia
August Mack Project Number JQ0600.253**

Dear Mr. Durham:

August Mack Environmental, Inc. (August Mack) was retained by American Woodmark Corporation, South Branch (American Woodmark) to prepare the enclosed Application for Title V Permit Renewal for the American Woodmark facility located in Moorefield, West Virginia. Enclosed is one application packet consisting of three copies of the application, each of which include one disc, and one set of hard copies of the forms specified in the application guidance. It should be noted that American Woodmark has submitted an administrative amendment on April 27, 2016 to increase the material throughput for the recovery waste still (Emission ID E11).

If you have any questions or comments, or require additional information, please do not hesitate to contact us at 717.399.9587.

Sincerely,

A handwritten signature in black ink that reads 'Katie Childs'.

Katie Childs
Compliance Manager

A handwritten signature in black ink that reads 'Alic Bent'.

Alic Bent
Senior Technical Engineer

Enclosure



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TITLE V PERMIT APPLICATION CHECKLIST FOR ADMINISTRATIVE COMPLETENESS

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.*

<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

1. Name of Applicant (As registered with the WV Secretary of State's Office): American Woodmark Corporation	2. Facility Name or Location: South Branch Plant Moorefield, WV
3. DAQ Plant ID No.: 0 3 1 — 0 0 0 3 0	4. Federal Employer ID No. (FEIN): 5 4 1 1 3 8 1 4 7
5. Permit Application Type: <input type="checkbox"/> Initial Permit <input checked="" type="checkbox"/> Permit Renewal <input type="checkbox"/> Update to Initial/Renewal Permit Application When did operations commence? 11/24/2005 What is the expiration date of the existing permit? 05/01 /2016	
6. Type of Business Entity: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Governmental Agency <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Limited Partnership	7. Is the Applicant the: <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both If the Applicant is not both the owner and operator, please provide the name and address of the other party. _____ _____ _____
8. Number of onsite employees: 285	
9. Governmental Code: <input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> District government owned and operated; 5	
10. Business Confidentiality Claims Does this application include confidential information (per 45CSR31)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.	

11. Mailing Address		
Street or P.O. Box: 587 Robert C. Byrd Industrial Park Road		
City: Moorefield	State: WV	Zip: 26836-
Telephone Number: (304) 530-1100	Fax Number: (304) 530-1101	

12. Facility Location		
Street: 587 Robert C. Byrd Industrial Park Road	City: Moorefield	County: Hardy
UTM Easting: 677.73 km	UTM Northing: 4327.129 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: From Town of Moorfield at intersection of Route 28 and Route 55, take Route 55 East (Winchester Ave.) approximately 2.2 miles to Robert C. Byrd Industrial Park Road on left. Plant is approximately 0.5 miles from Route 55 East on Robert C. Byrd Industrial Park Road		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, for what air pollutants?
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, name the affected state(s). Virginia Maryland
Is facility located within 100 km of a Class I Area¹? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, name the area(s). Dolly Sods Wilderness Area Shannadoah National Park Otter Creek Wilderness Areas
<small>^{Paul} Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.</small>		

13. Contact Information		
Responsible Official: Paul Gall		Title: Plant Manager
Street or P.O. Box: 587 Robert C. Byrd Industrial Park Road		
City: Moorefield	State: WV	Zip: 26836-
Telephone Number: (304) 530-1100	Fax Number: (304) 530-1101	
E-mail address: pgall@woodmark.com		
Environmental Contact: Todd Regula, CSP		Title: Corporate Environmental, Health, and Safety Manager
Street or P.O. Box: 587 Robert C. Byrd Industrial Park Road		
City: Moorefield	State: WV	Zip: 26836-
Telephone Number: (504) 665-9264	Fax Number: (540) 665-9202	
E-mail address: ERegula@woodmark.com		
Application Preparer: Todd Regula, CSP		Title: Corporate Environmental, Health, and Safety Manager
Company: American Woodmark Corp. South Branch Plant		
Street or P.O. Box: 587 Robert C. Byrd Industrial Park Road		
City: Moorefield	State: WV	Zip: 26836-
Telephone Number: (504) 665-9264	Fax Number: (540) 665-9202	
E-mail address: ERegula@woodmark.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
Wood Cabinet Manufacturing	Wood Cabinets	337110	2434

Provide a general description of operations.

Process Description of the Facility

The main processes of the plant is the manufacture and finishing of wood doors and frames for shipment to AWC facilities across the nation for final assembly into finished kitchen and vanity cabinets. Primary processes will include dimensioning of kiln-dried wood; assembly of parts to create either doors or frames; and finishing of doors, frames and miscellaneous parts.

Manufacturing Operations

In the door manufacturing area, rough-cut wood (kiln-dried wood) is received and sorted by size and species. Wood is delivered to the dimensioning processes that will shape the material to the desired specifications using moulders and double or single end tenoners. Wood parts are sanded and assembled in an automatic assembly machine. Assembled doors are then sanded and run through a double or single end tenoner to shape the outside profile of the doors. A final series of sanding completes the process and the doors are stacked and readied for transfer to the finishing area of the plant or shipment offsite to a sister plant.

In the frame manufacturing area, rough-cut wood (kiln-dried wood) is received and sorted by size and species. The process is split into two operations, one for manufacturing vertical components and one for manufacturing horizontal components. Horizontal components are cut to length by a circular saw. Holes are routed out and a dowel is glued into the hole. Vertical components are cut to length by a circular saw and holes routed to accept a dowel from a horizontal component. All components are then sent to the assembly area where the horizontal and vertical components are glued and nailed together to produce the frame. The frames then undergo a final sanding operation, stacked, and readied for transfer to the finishing area of the plant or shipment offsite to a sister plant. A specialty parts cell conducts custom modifications or parts for frames that the automated process cannot accommodate. Operations in the specialty parts cell include cutoff, sanding and routing. Parts are then transferred to the finishing area of the plant or shipped off site to a sister plant.

A miscellaneous parts area will provide specialty and limited run parts for special orders. Parts will be sent to the door or frame assembly area as needed to meet order requirements.

All scrap wood (pieces too large to be handled by the dust removal system) is conveyed to a wood hog that will grind the material into small chips (>100 microns) and conveyed to the silos for storage. All dust recovered from baghouse systems BH-1 through BH-11 will be transferred to the silos for storage. Wood dust and chips are stored in the silo and fed through a series of augers to a 28.8 MMBTU boiler at the facility. Heat from the boiler will be used for climate control of the building and drying for the process lines.

Finishing Operations

White wood components from the manufacturing operations are transferred from the manufacturing operations and loaded into the finishing lines to receive protective and decorative finishes. The finishing operations will consist of two separate lines, a door spray line and a UV roll coat frame line. All finishing processes and pump room activities will occur inside a temporary total enclosure (TTE).

The configuration of the door spray line will consist of automatic spray booths, rotary sanders panel cleaners, preheat ovens, drying oven modules, manual sanding stations and manual spray booths (see Attachment D for Equipment Table). American Woodmark may have the need to reconfigure this finishing line from time to time, by adding, removing, or changing the order of the spray booths, sanders, panel cleaners, etc. After each spray booth (with the exception of Spray Booth #4) the doors will enter a series of tunnel ovens for drying. These ovens are forced air steam heat exchanger dryers that are supplied by steam from the onsite boilers. All oven air is "cascaded" from one unit to another in order to concentrate the VOC from the drying process and directed to the spray booth immediately upstream of the oven group. This air will ventilate the booth and all air collected will be drawn either into a wet collector (topcoat and sealer) or dry filter (stain and toner) to remove any overspray from the gas stream. The gas stream will then be vented to the regenerative thermal oxidizer for destruction of the VOC.

Before a part has finish applied to it, it may undergo a denibbing process (rotary sander) and surface cleaning (panel cleaning machine) to remove any contaminants from the part surface. The manual sanding stations are provided for employees to hand sand part surfaces not adequately covered by the rotary sanders. Ventilation from these machines is passed on to two baghouses dedicated to the finishing operations.

All finishing materials are stored in a central storage room (pump room) for delivery to the floor. Most finishing materials (coatings, stains, solvents, etc.) will be delivered via overhead lines to the applicators for use. Day tanks will be filled with finish from 55-gallon drums or from bulk storage tanks. The pump room will also serve as the waste storage area.

Finishing operations are serviced by two (2) baghouses that control particulate generated from the rotary sanders, panel cleaning machines and manual sanding tables. The gas stream can be returned to the finishing room during the winter for conservation of heat. The dust collectors are ventilate to the atmosphere during the summer months.

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.

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input checked="" 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/Reqs.	<input checked="" type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input 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 checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

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.

19. Non Applicability Determinations (*Continued*) - Attach additional pages as necessary.

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.

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).

See Attachment E

X 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.)

See Attachment E

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

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

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

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

See Attachment E

X 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.)

See Attachment E

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

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

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R13-2571A	08/02/2004	None
R13-2571B	10/05/2005	AS BUILT UPDATE
R13-2571C	04/16/2006	Fire Pumps & Tank Added
R13-2571D	08/07/2006	Modified B2 to 500 HP
R13-2571E	12/10/2006	Roll Coat Limits per UV
R13-2571F	04/22/2007	Pump Room Limits
R13-2571G	06/08/2007	Spray Booth PTE
R13-2571H	10/10/2007	Saw Dust Hopper Added
R13-2571I	03/14/2008	Administration Amendment
R13-2571J	07/15/2008	Ham Lake Paint Booths
R13-2571J	09/21/2008	Permit Revision
R13-2571K	12/10/2008	Permit Revision- Source Combination
R13-2571L	06/08/2015	Permit Modification
R13-2571M	06/08/2015	Permit Modification
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22. Inactive Permits/Obsolete Permit Conditions

[illegible]

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	Uncontrolled: 177.3TPY Controlled: 48.6 TPY
Nitrogen Oxides (NO _x)	Uncontrolled: 36.00 TPY Controlled: 35.55 TPY
Lead (Pb)	Uncontrolled:00.02 TPY Controlled: 0.004 TPY
Particulate Matter (PM _{2.5}) ¹	Uncontrolled: TPY Controlled: TPY
Particulate Matter (PM ₁₀) ¹	Uncontrolled: 1,595 TPY Controlled: 54.09 TPY
Total Particulate Matter (TSP)	Uncontrolled: 1,595 TPY Controlled: 54.09 TPY
Sulfur Dioxide (SO ₂)	Uncontrolled: 1.300 TPY Controlled: 1.130 TPY
Volatile Organic Compounds (VOC)	Uncontrolled: 3898.2TPY Controlled: 249.1 TPY
Hazardous Air Pollutants ²	Potential Emissions
Aggregate HAPS	Uncontrolled: 1074.0 TPY Controlled: 90.0 TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Formaldehyde	Uncontrolled: 0.502 TPY Controlled: 0.154 TPY
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² 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

24. Insignificant Activities (Check all that apply)	
X	1. Air compressors and pneumatically operated equipment, including hand tools.
X	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
X	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.
X	4. Bathroom/toilet vent emissions.
X	5. Batteries and battery charging stations, except at battery manufacturing plants.
X	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.
X	8. Boiler water treatment operations, not including cooling towers.
X	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
X	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
X	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
X	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
X	14. Demineralized water tanks and demineralizer vents.
X	15. Drop hammers or hydraulic presses for forging or metalworking.
X	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.
X	18. Emergency road flares.
X	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO₂, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

24. Insignificant Activities (Check all that apply)	
X	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
X	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.
X	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
X	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
X	26. Fire suppression systems.
X	27. Firefighting equipment and the equipment used to train firefighters.
X	28. Flares used solely to indicate danger to the public.
X	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.
X	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
X	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
X	33. Hydraulic and hydrostatic testing equipment.
X	34. Indoor or outdoor kerosene heaters.
X	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.
X	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
X	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

24. Insignificant Activities (Check all that apply)	
X	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
X	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.
X	43. Process water filtration systems and demineralizers.
X	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.
X	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
X	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
X	50. Space heaters operating by direct heat transfer.
X	51. Steam cleaning operations.
X	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
X	54. Steam vents and safety relief valves.
X	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.
X	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
X	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

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
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 Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

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: Paul Gall

Title: Plant Manager

Responsible official's signature:

Signature: _____ Signature Date: _____
(Must be signed and dated in blue ink)

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

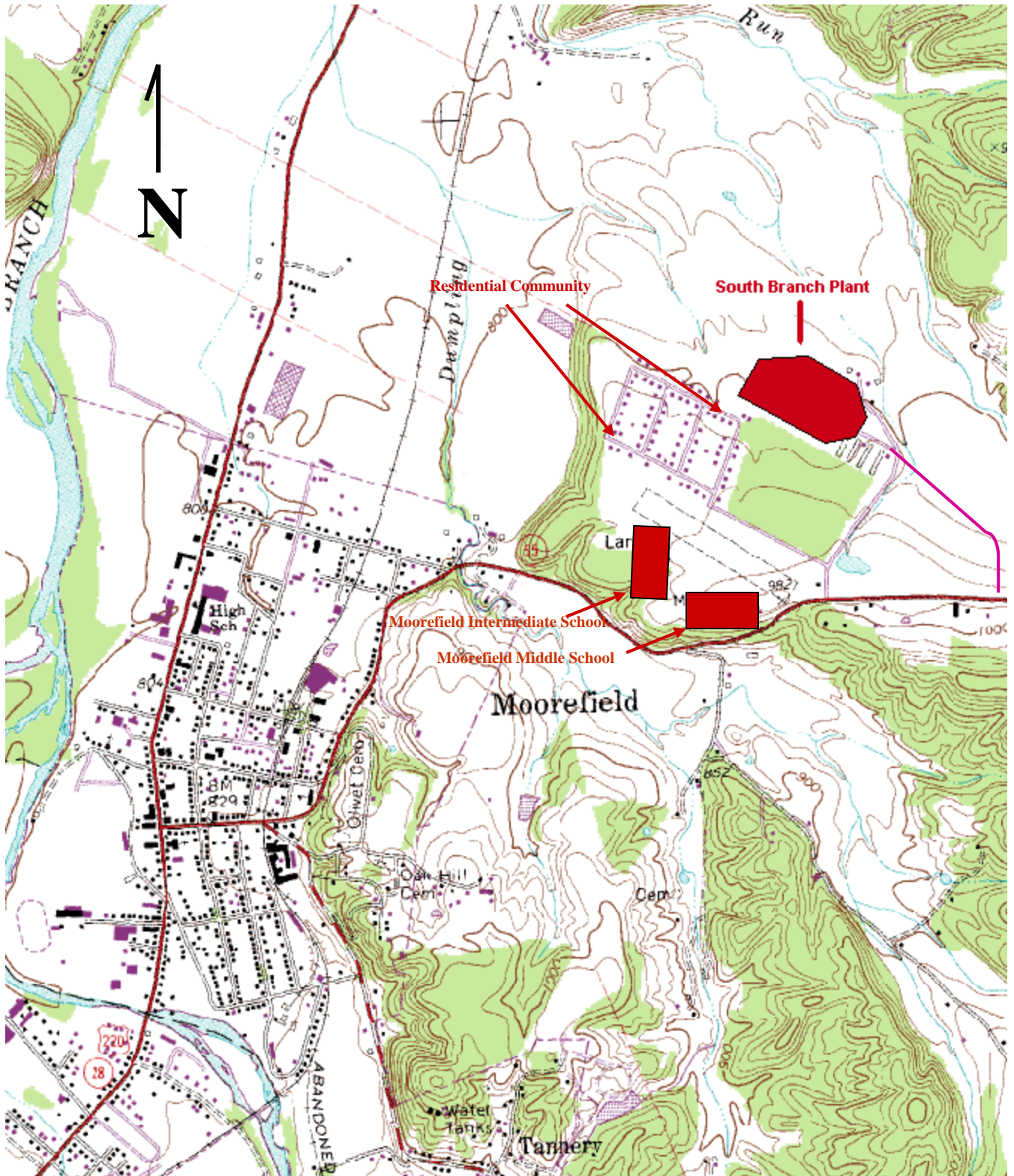
X	ATTACHMENT A: Area Map
X	ATTACHMENT B: Plot Plan(s)
X	ATTACHMENT C: Process Flow Diagram(s)
X	ATTACHMENT D: Equipment Table
X	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
X	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" 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 www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

Area Map

American Woodmark Corporation South Branch Facility



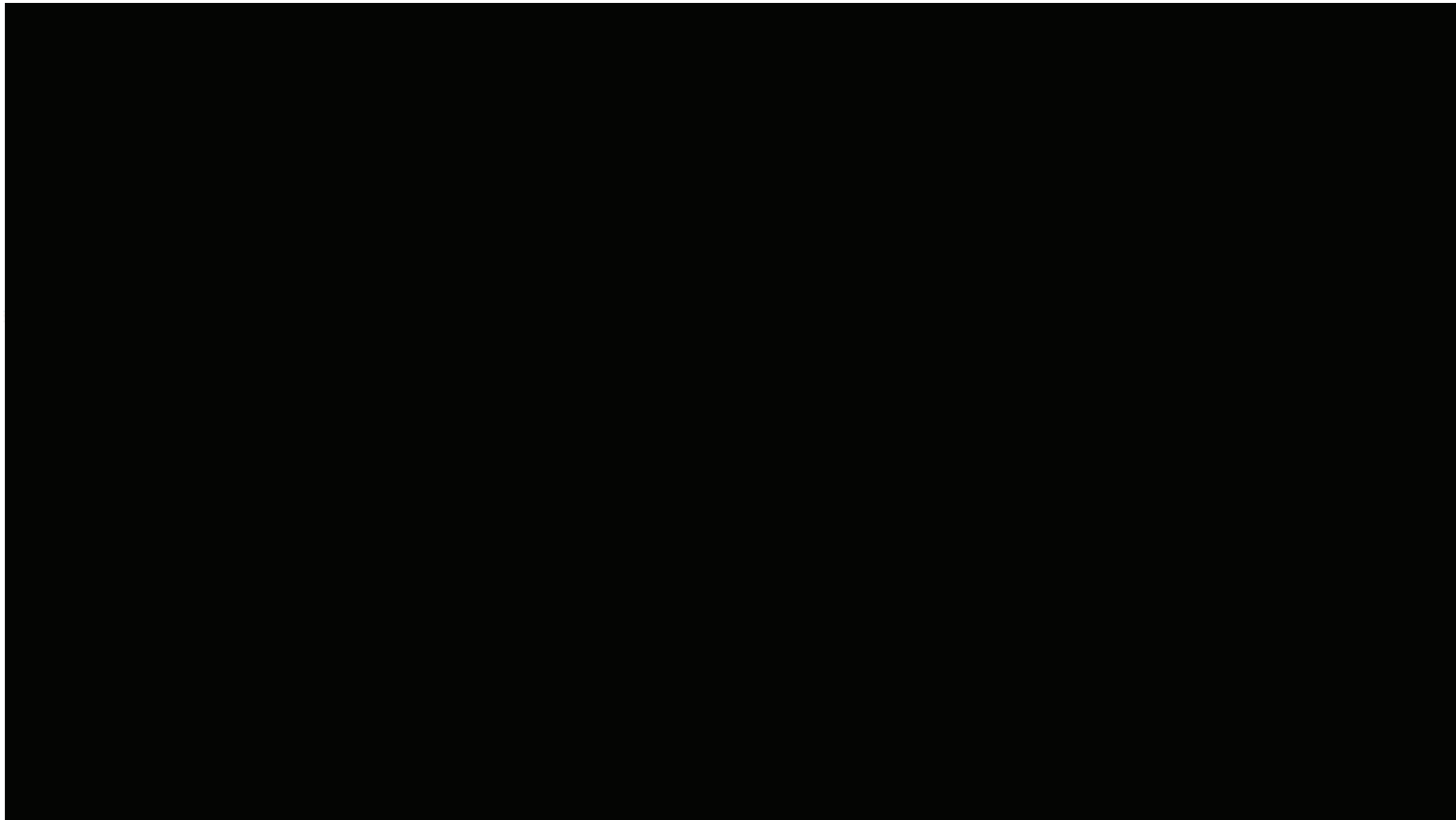
ATTACHMENT B

Plot Plan


CLAIMED CONFIDENTIAL 4/25/2016


Redacted Copy - Claim of Confidentiality

REVISIONS			
ITM	DESCRIPTION	DATE	APPROVED
15	RELEASED FOR REVIEW	10/26/11	BTM



MATERIAL:		
FINISH:		
UNITS:		
	APPROVAL:	DATE
DRAWN	BTM	02/25/13
ENG	BTM	02/25/13
ENG MGR	BTM	02/25/13
PROJ MGR	BTM	02/25/13

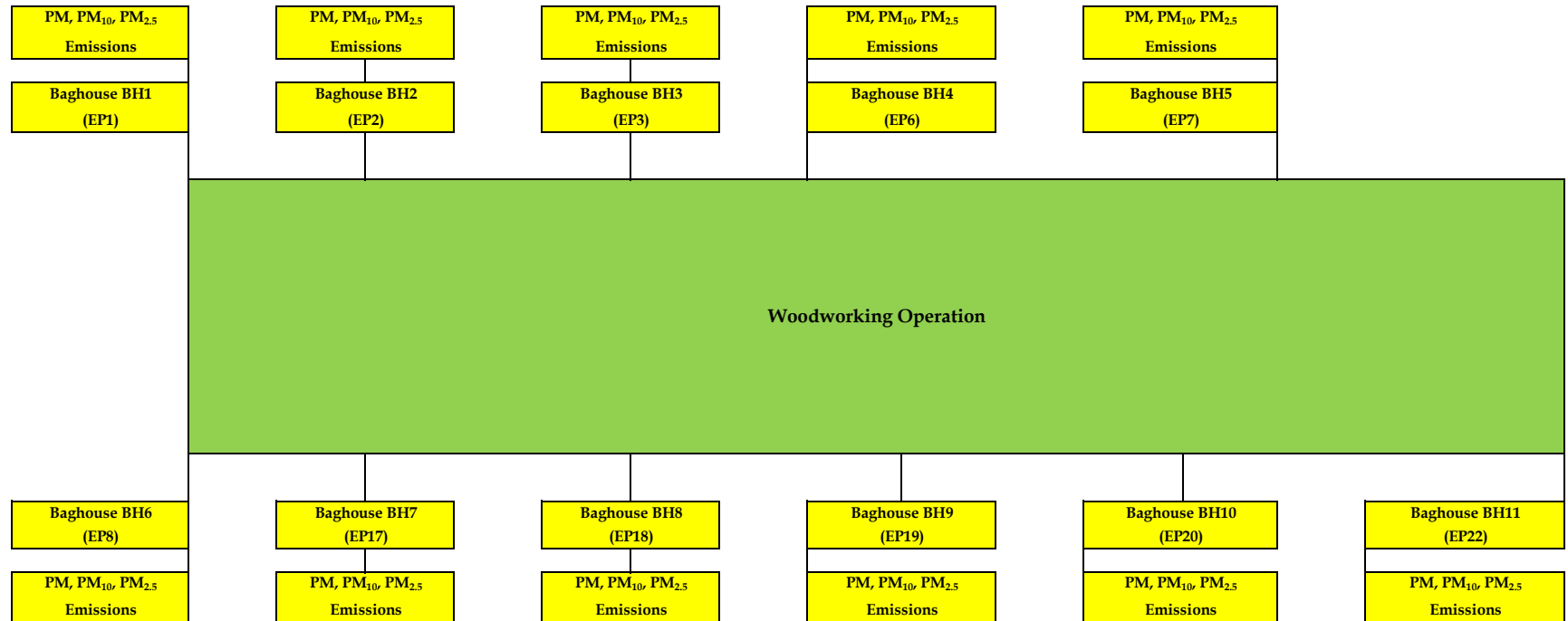
TOLERANCES	
DECIMALS	
XX = .XX	
XX = .015	
XXX = .005	
ANGLES	
± 1 DEG	
UNLESS OTHERWISE SPECIFIED	
	
THIRD ANGLE PROJECTION	

LIST OF MATERIALS			
			
AMERICAN WOODMARK CORPORATION			
SOUTH BAY AREA MANUFACTURING FACILITY			
PLAN NEW CONCEPTUAL LAYOUT			
TITLE		REV	
AMERICAN WOODMARK CORPORATION		15	
SOUTH BAY AREA MANUFACTURING FACILITY			
PLAN NEW CONCEPTUAL LAYOUT			
SIZE		WEIGHT:	
B			
DRAWING NUMBER:		REV	
AWC-OP-COMP-1001-R15		15	
SCALE: 1/8" = 1'-0"			

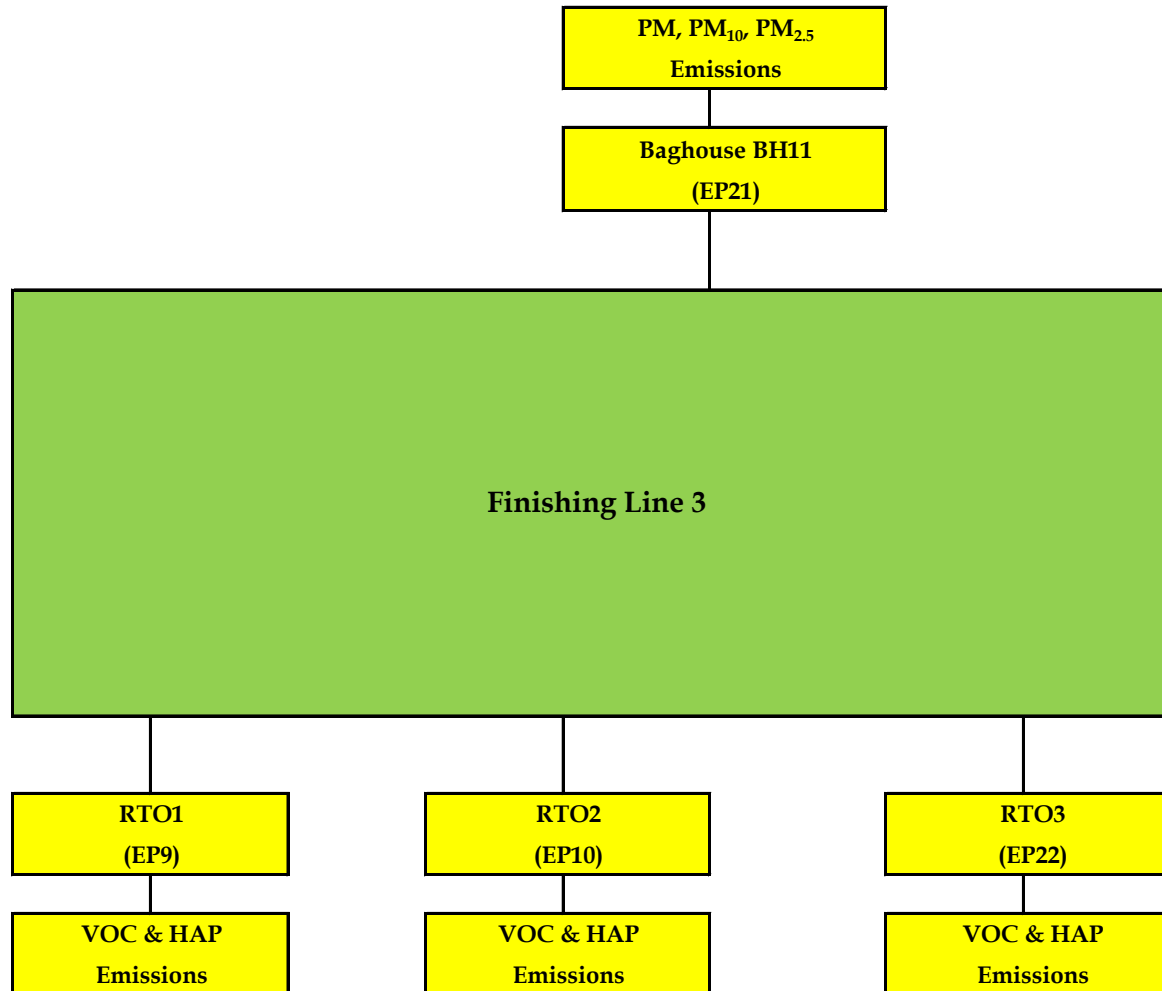
ATTACHMENT C

Process Flow Diagram

Woodworking Operation - Process Flow Diagram



Finishing Line 3 - Process Flow Diagram



ATTACHMENT D

Equipment Table

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 ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
E1, E2, E3, E6	BH1-BH4	Mill Area	Mill Area Equipment		2004
E7/E8	BH5/BH6	Dust-A1.1	Rotary Sanding Machine		2004
E7/E8	BH5/BH6	Dust-A1.2	Panel Cleaning Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-A1.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1-RTO3	VOC-A1.2	Stain Wiping Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-A1.3	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A1.4	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A1.5	Oven		2004
E7/E8	BH5/BH6	Dust-A2.1	Rotary Sanding Machine		2004
E7/E8	BH5/BH6	Dust-A2.2	Panel Cleaning Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-A2.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1-RTO3	VOC-A2.2	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A2.3	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A2.4	Oven		2004
E7/E8	BH5/BH6	Dust-A3.1	Rotary Sanding Machine		2004
E7/E8	BH5/BH6	Dust-A3.2	Manual Sanding Conveyor		2004
E7/E8	BH5/BH6	Dust-A3.3	Panel Cleaning Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-A3.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1-RTO3	VOC-A3.2	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A3.3	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A3.4	Oven		2004

E9/E10/E22	RTO1- RTO3	VOC-A3.5	Oven		2004
E9/E10/E22	RTO1- RTO3	VOC-A3.6	Oven		2004
E7/E8	BH5/BH6	Dust-A4.1	Manual Sanding Conveyor		2004
E7/E8	BH5/BH6	Dust-A4.2	Manual Sanding Conveyor		2004
E7/E8	BH5/BH6	Dust-A4.3	Manual Sanding Conveyor		2004
E7/E8	BH5/BH6	Dust-A4.4	Rotary Sanding Conveyor		2004
E7/E8	BH5/BH6	Dust-A4.5	Panel Cleaning Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-A4.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1- RTP3	VOC-A4.2	Oven		2004
E9/E10/E22	RTO1- RTO3	VOC-A5.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1- RTO3	VOC-A5.2	Stain Wiping Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-A5.3	Oven		2004
E9/E10/E22	RTO1- RTO3	VOC-A5.4	Oven		2004
E9/E10/E22	RTO1- RTO3	VOC-A5.5	Oven		2004
E7/E8	BH5/BH6	Dust-A5.1	Rotary Sanding Conveyor		2004
E7/E8	BH5/BH6	Dust-A5.2	Panel Cleaning Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-A6.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1- RTO3	VOC-A6.2	Oven		2004
E9/E10/E22	RTO1- RTO3	VOC-A6.3	Oven		2004
E9/E10/E22	RTO1- RTO3	VOC-A6.4	Oven		2004
E7/E8	RTO1- RTO3	Dust-A6.1	Rotary Sanding Conveyor		2004
E7/E8	RTO1- RTO3	Dust-A6.2	Panel Cleaning Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-A7.1	Preheater included with Automatic Spray Machine w/ Belt Cleaning System		2004
E9/E10/E22	RTO1- RTO3	VOC-A7.2	Oven		2004

E9/E10/E22	RTO1-RTO3	VOC-A7.3	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A7.4	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A7.5	Oven		2004
E7/E8	BH5/BH6	Dust-A7.1	Rotary Sanding Machine		2004
E7/E8	BH5/BH6	Dust-A7.2	Manual Sanding Machine		2004
E7/E8	BH5/BH6	Dust-A7.3	Panel Cleaning Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.1	Preheater included with Automatic Spray Machine w/Belt Cleaning System		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.2	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.3	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.4	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.5	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.6	Oven		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.7	Oven Cooling		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.8	Oven Cooling		2004
E9/E10/E22	RTO1-RTO3	VOC-A8.9	Oven Cooling		2004
E9/E10/E22	RTO1-RTO3	VOC-B1.1	Automatic Robotic Spray Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-B1.2	Hot Air Flash Tunnel with Recycle		2004
E9/E10/E22	RTO1-RTO3	VOC-B1.3	Hot Air Flash Tunnel with Recycle		2004
E9/E10/E22	RTO1-RTO3	VOC-B2.1	Automatic Robotic Spray Machine		2004
E9/E10/E22	RTO1-RTO3	VOC-B2.2	Hot Air Flash Tunnel With Recycle		2004
E9/E10/E22	RTO1-RTO3	VOC-B2.3	Hot Air Flash Tunnel With Recycle		2004
NA	NA	VOC-B3.1	N.2 Roll Coater Machine		2004
E-B8	NA	VOC-B3.2	UV Oven UV 2000	9,252 CFM	2004
NA	NA	VOC-B3.3	N.2 Roll Coater Machine		2004

E-B8	NA	VOC-B3.4	UV Oven UV 2000	9,252 CFM	2004
E7/E8	BH5/BH6	Dust-B1.1	Wide Belt Sanding Machine		2004
E7/E8	BH5/BH6	Dust-B1.2	Denibbing Machine		2004
NA	NA	VOC-B4.1	N.2 Roll Coater Machine		2004
NA	NA	VOC-B4.2	N.2 Roll Coater Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-B4.3	Jet Nozzles Oven with Infrared Lamps		2004
NA	NA	VOC-B5.1	N.2 Roll Coater Machine		2004
NA	NA	VOC-B5.2	N.2 Roll Coater Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-B5.3	Stain Wiping Machine		2004
E9/E10/E22	RTO1- RTO3	VOC-B5.4	Hot Air Laminar Oven with Recycle		2004
E9/E10/E22	RTO1- RTO3	VOC-B5.5	Jet Nozzles Oven with Infrared Lamps		2004
E7/E8	BH5/BH6	Dust-B2.1	Denibbing Machine		2004
NA	NA	VOC-B6.1	N.2 Roll Coater Machine		2004
E-B9	NA	VOC-B6.2	UV Oven UV 2000	20,734 CFM	2004
NA	NA	VOC-B7.1	N.2 Roll Coater Machine		2004
E-B9	NA	VOC-B7.2	UV Oven UV 2000	20,734 CFM	2004
E7/E8	BH5/BH6	Dust-B3.1	Denibbing Machine		2004
NA	NA	VOC-B8.1	N.2 Roll Coater Machine		2004
E-B9	NA	VOC-B8.2	UV Oven UV 2000	20,734 CFM	2004
E7/E8	BH5/BH6	Dust-B4.1	Denibbing Machine		2004
NA	NA	VOC-B9.1	N.2 Roll Coater Machine		2004
E-B9	NA	VOC-B9.2	UV Oven UV 2000	20,734 CFM	2004
E11	NA	PR	Bulk Storage Tanks- Pump Room	Varies. (Per Tank Max = 19,812 gal)	2004/2007
E9/E10/E22, E12	RTO1- RTO3	TB1	Paint Spray Booth (vents through E12 when non- VOC containing coatings are sprayed)	8,000 CFM 10 Gal/hr	2008
E13	PE	SD13 (S13 in R13- 2571)	Sawdust Hopper	5,000 lb/hr	2007

E23	BV1	S1	Wood Dust Silo #1	46,000 ft ³	2004
E4	C1	B1	600 HP wood-fired boiler	28.8 MMBtu/hr	2004
E5	NA	B2	500 HP natural gas-fired boiler	20.9 MMBtu/hr	2004
E-B4	NA	B4	Natural gas-fired auxiliary boiler	1.22 MMBtu/hr	
E14	NA	FP1	Diesel-powered fire water pump	300 HP	2004
E1, E2, E3, E6	BH1, BH2, BH3, BH4	Mill Area	Mill Area Equipment	NA	2004
E9, E10, E22, E15	RTO1- RTO3	SB02	Paint Spray Booth (vents through E15 when non-VOC containing coatings are sprayed)		2008
E9, E10, E22, E16	RTO1- RTO3	SB03	Paint Spray Booth (vents through E16 when non-VOC containing coatings are sprayed)		2008
E7/E8	BH5/BH6	Dust-A8.1	Unisander		2013
E17/E18	BH7/BH8	Dust-MA1	Vollmer Auto Precision Grinder		2013
E17/E18	BH7/BH8	Dust-MA2	Framestock Notcher		2013
E17/E18	BH5/BH6	Dust-A8.2	Roba Tech t-1300/D1		2013
E17/E18	BH7/BH8	Dust-MA3	Koch Sprint PTP		2013
E17/E18	BH7/BH8	Dust-MA4	Koch Dowel Machine		2013
E17/E18	BH7/BH8	Dust-MA5	Koch Stile #2		2013
E17/E18	BH7/BH8	Dust-MA6	CNC Two Spindle Insert Shaper		2013
E17/E18	BH7/BH8	Dust-MA7	CNC Router-Expedite Cell		2013
E17/E18	BH7/BH8	Dust-MA8	Cutter & Tool Grinder- Cinci		2013
E17/E18	BH7/BH8	Dust-MA9	Forest City Cluster Drill		2013
E17/E18	BH7/BH8	Dust- MA10	OMGA T50 350 Miter Saw S/Bed		2013
E17/E18	BH7/BH8	Dust MA11	Fletcher Trim/ Shape Sander		2013
E17/E18	BH7/BH8	Dust- MA12	Diehl Rip Saw		2015
E17/E18	BH7/BH8	Dust-IL1	Heismen Polisher		2013
E17/E18	BH7/BH8	Dust-IL2	Mischellaneous Sander		2013
E17/E18	BH7/BH8	Dust-IL3	Door Insert Machine		2013
E17/E18	BH7/BH8	Dust-IL4	Panel Shaper		2013
E17/E18	BH7/BH8	Dust-IL5	CNC		2013

E17/E18	BH7/BH8	Dust-IL6	Door Finisher		2013
E11	None	PR-SS2	Waste-Solvent Recovery Still	5.13 gal/hr	2013
E17-E20	BH7-BH10	AWC-001	Panel Saw		2015
E17-E20	BH7-BH10	AWC-002	Panel Saw		2015
E17-E20	BH7-BH10	AWC-003	Paul Saw		2015
E17-E20	BH7-BH10	AWC-004	Planer		2015
E17-E20	BH7-BH10	AWC-005	Moulder		2015
E17-E20	BH7-BH10	AWC-006	Cope-Model PS Double End		2015
E17-E20	BH7-BH10	AWC-007	Voorwood		2015
E17-E20	BH7-BH10	AWC-008	RFID		2015
E17-E20	BH7-BH10	AWC-009	RFID		2015
E17-E20	BH7-BH10	AWC-010	P5 Equalizer		2015
E17-E20	BH7-BH10	AWC-011	P5 Set		2015
E17-E20	BH7-BH10	AWC-013	P5 Set		2015
E17-E20	BH7-BH10	AWC-015	P2 Equalizer		2015
E17-E20	BH7-BH10	AWC-016	P5 Set		2015
E17-E20	BH7-BH10	AWC-018	P5 Set		2015
E17-E20	BH7-BH10	AWC-019	4 Head Back Sander		2015
E17-E20	BH7-BH10	AWC-020	5 Head Top Sander		2015
E17-E20	BH7-BH10	AWC-021	5 Head Top Sander		2015
E17-E20	BH7-BH10	AWC-022	4 Head Back Sander		2015
E17-E20	BH7-BH10	AWC-023	Miter Saw		2015

E17-E20	BH7-BH10	AWC-024	Chop Saw		2015
E21	BH11	AWC-023	Sander/Cleaner		2015
E21	BH11	AWC-043	Hand Sand Conveyor/ With Suction		2015
E21	BH11	AWC-041	Sander/ Cleaner		2015
E21	BH11	AWC-052	Hand Sand Conveyor/ With Suction		2015
E21	BH11	AWC-051	Sander/ Cleaner		2015
E21	BH11	AWC-053	Hand Sand Conveyor/ With Suction		2015
E9/E10/E22	RTO1-RTO3	AWC-060	Air Blades Cooling		2015
E9/E10/E22	RTO1-RTO3	AWC-024	IR Preheat		2015
E9/E10/E22	RTO1-RTO3	AWC-025	Spray Machine		2015
E9/E10/E22	RTO1-RTO3	AWC-026	Hand Wiping Conveyor/With Suction		2015
E9/E10/E22	RTO1-RTO3	AWC-027	Hand Wiping Conveyor/ With Suction		2015
E9/E10/E22	RTO1-RTO3	AWC-029	Two Chamber Vertical Oven		2015
E9/E10/E22	RTO1-RTO3	AWC-032	High Velocity IR Oven		2015
E9/E10/E22	RTO1-RTO3	AWC-035	UVR M2 UV Oven		2015
E9/E10/E22	RTO1-RTO3	IR Preheat	IR Preheat		2015
E9/E10/E22	RTO1-RTO3	AWC-045	Spray Machine		2015
E9/E10/E22	RTO1-RTO3	AWC-047	Two Chamber Vertical Oven		2015
E9/E10/E22	RTO1-RTO3	AWC-049	High Velocity IR Oven		2015
E9/E10/E22	RTO1-RTO3	AWC-054	Panel Cleaner		2015
E9/E10/E22	RTO1-RTO3	AWC-055	Spray Machine		2015
E9/E10/E22	RTO1-RTO3	AWC-057	Two Chamber Vertical Oven		2015

E9/E10/E22	RTO1-RTO3	AWC-059	High Velocity IR Oven		2015
E9/E10/E22	RTO1-RTO3	AWC-061	Single Stage Rotary Screw Compressor		2015
E9/E10/E22	RTO1-RTO3	AWC-062	Single Stage Rotary Screw Compressor-variable		2015

¹For 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

Emission unit ID number: RTO1	Emission unit name: Recuperative Thermal Oxidizer	List any control devices associated with this emission unit. N/A
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Recuperative thermal oxidizer designed to destroy VOC's through thermal decomposition

Manufacturer: MEGTEC Systems	Model number: EII-450-95	Serial number: N/A
--	------------------------------------	------------------------------

Construction date: 08/04/2004	Installation date: 10/21/2004	Modification date(s): N/A
---	---	-------------------------------------

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 58,500 CFM

Maximum Hourly Throughput: 58,500 CFM	Maximum Annual Throughput:	Maximum Operating Schedule: 6,240
---	-----------------------------------	---

Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 8.71 MMBTU/HR	Type and Btu/hr rating of burners:
---	---

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.
 Natural Gas

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.5 gr/100 ft ³	N/A	1,000 BTU/ft ³

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.73	3.20
Nitrogen Oxides (NO _x)	0.87	3.81
Lead (Pb)	4.4E-06	1.91E-05
Particulate Matter (PM ₁₀)	0.07	0.29
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	0.01	0.02
Volatile Organic Compounds (VOC)	0.05	0.21
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	6.5E-04	2.86E-03
Hexane	0.02	0.07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>AP-42 Chapter 1.4 Natural Gas Combustion (July, 1998)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR6-4.1: PM emission limits from RTO vent points.

45CSR6-4.3: 20% max. opacity from vent points.

40CFR63 – Subpart JJ : National Emission Standards for Wood Furniture Manufacturing Operations.

 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.)

45CSR6-4.1: Proper operation and maintenance of RTOs to limit PM emissions.

45CSR6-4.3: Periodic visual observation and recordkeeping of visual observations.

40CFR63 – Subpart JJ:

- ☒ Comply with operation requirements of 40CFR63 805 Performance Test Methods (Test completed June 3-6, 2005)
- ☒ Comply with overall control equipment requirements for control equipment in 40CFR63 804 Compliance Procedures and Monitoring Requirements

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: RTO2	Emission unit name: Recuperative Thermal Oxidizer	List any control devices associated with this emission unit. N/A
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Recuperative thermal oxidizer designed to destroy VOC's through thermal decomposition

Manufacturer: MEGTEC Systems	Model number: EII-450-95	Serial number: N/A
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Construction date: 08/04/2004	Installation date: 10/21/2004	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 58,500 CFM

Maximum Hourly Throughput: 58,500 CFM	Maximum Annual Throughput:	Maximum Operating Schedule: 6,240
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct
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Maximum design heat input and/or maximum horsepower rating: 8.71 MMBTU/HR	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Natural Gas

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.5 gr/100 ft ³	N/A	1,000 BTU/ft ³

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.73	3.20
Nitrogen Oxides (NO _x)	0.87	3.81
Lead (Pb)	4.4E-06	1.91E-05
Particulate Matter (PM ₁₀)	0.07	0.29
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	0.01	0.02
Volatile Organic Compounds (VOC)	0.05	0.21
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	6.5E-04	2.86E-03
Hexane	0.02	0.07
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>AP-42 Chapter 1.4 Natural Gas Combustion (July, 1998)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR6-4.1: PM emission limits from RTO vent points.

45CSR6-4.3: 20% max. opacity from vent points.

40CFR63 – Subpart JJ : National Emission Standards for Wood Furniture Manufacturing Operations.

 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.)

45CSR6-4.1: Proper operation and maintenance of RTOs to limit PM emissions.

45CSR6-4.3: Periodic visual observation and recordkeeping of visual observations.

40CFR63 – Subpart JJ:

- J Comply with operation requirements of 40CFR63 805 Performance Test Methods (Test completed June 3-6, 2005)
- J Comply with overall control equipment requirements for control equipment in 40CFR63 804 Compliance Procedures and Monitoring Requirements

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: RTO3	Emission unit name: Recuperative Thermal Oxidizer	List any control devices associated with this emission unit: N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Recuperative thermal oxidizer designed to destroy VOC's through thermal decomposition

Manufacturer: MEGTEC Systems	Model number: CleanSwitch 600-95	Serial number: N/A
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Construction date: June 2015	Installation date: July 2015	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 60,000 SCFM

Maximum Hourly Throughput: 60,000 SCFM	Maximum Annual Throughput:	Maximum Operating Schedule: 6,240
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 11,664,000 BTU/HR	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.5 gr/100ft ³	N/A	1,000 BTU/ft ³

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	1.42	4.42	
Nitrogen Oxides (NO _x)	1.68	5.26	
Lead (Pb)	8.3E-6	2.6E-5	
Particulate Matter (PM _{2.5})	0.13	0.40	
Particulate Matter (PM ₁₀)	0.13	0.40	
Total Particulate Matter (TSP)			
Sulfur Dioxide (SO ₂)	0.01	0.03	
Volatile Organic Compounds (VOC)	0.09	0.29	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Toluene	5.8E-5	1.8E-4	
Formaldehyde	1.3E-3	3.9E-3	
Hexane	3.0E-2	9.5E-2	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
<p>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.).</p> <p>AP-42 Chapter 1.4 Natural Gas Combustion (July, 1998)</p>			

Applicable Requirements

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

45CSR6-4.1: PM emission limits from RTO vent points.

45CSR6-4.3: 20% max. opacity from vent points.

40CFR63 – Subpart JJ : National Emission Standards for Wood Furniture Manufacturing Operations.

☒ 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.)

45CSR6-4.1: Proper operation and maintenance of RTOs to limit PM emissions.

45CSR6-4.3: Periodic visual observation and recordkeeping of visual observations.

40CFR63 – Subpart JJ:

-) Comply with operation requirements of 40CFR63 805 Performance Test Methods (Test completed June 3-6, 2005)
-) Comply with overall control equipment requirements for control equipment in 40CFR63 804 Compliance Procedures and Monitoring Requirements

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

Emission unit ID number:
SD13

Emission unit name:
Saw Dust Hopper

List any control devices associated with this emission unit.
Partial Enclosure

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

Saw dust can be loaded into the hopper, which will feed it to the existing silo and then be used as fuel in the wood fired boiler.

Manufacturer:
Foust

Model number:
N/A

Serial number:
N/A

Construction date:
N/A

Installation date:
12/2007

Modification date(s):
N/A

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

Maximum Hourly Throughput:
5,000 pounds

Maximum Annual Throughput:
5,200 tons

Maximum Operating Schedule:
8,760 hours

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes X No

If yes, is it?

___ Indirect Fired ___ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	1.5	1.56
Total Particulate Matter (TSP)	1.5	1.56
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Emission factor found with the aid of the DAQ.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

None.

 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.)

Record saw dust throughput.

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: TB1	Emission unit name: Paint Spray Booth	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Spray booth utilized to paint test color panels and do limited production spraying painting.

Manufacturer: Binks	Model number: N/A	Serial number: N/A
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Construction date: 06/2004	Installation date: N/A	Modification date(s): 2008
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput: 1 gallon/hour	Maximum Annual Throughput: 6240 gallon/year	Maximum Operating Schedule: 8,760 hours
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Fuel Usage Data (fill out all applicable fields)

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.16	0.49
Total Particulate Matter (TSP)	0.16	0.49
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.04	0.13
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Aggregate HAP's	0.04	0.13
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>Mass Balance</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

None.

 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.)

Record usage and hours of operation.

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

American Woodmark Corporation – Claimed Confidential – May 2011

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: VOC-B3.1, 3.3	Emission unit name: UV Rollcoaters	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
UV Rollcoater applicators with UV cure.

Manufacturer: Cefla	Model number: T20M/F	Serial number: N/A
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Construction date: 08/04/2004	Installation date: 10/21/2004	Modification date(s): 10/11/2005
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1000 Frames/HR

Maximum Hourly Throughput: 1000 Frames/HR	Maximum Annual Throughput:	Maximum Operating Schedule: 6,420 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

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

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

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.01	
Total Particulate Matter (TSP)	0.01	
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.27	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Aggregate HAP's	0.02	
Formaldehyde	0.00	
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

40CFR63 – Subpart JJ: Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations.

 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.)

40CFR63 – Subpart JJ: This emission unit will use a combination of compliance methods as defined in 40CFR63.804(a)(4) by utilizing a combination of a VHAP averaging, compliant materials and the use of a control system. The unit will maintain compliance with the provisions of Subpart JJ for training, recordkeeping, monitoring and reporting.

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

American Woodmark Corporation – Claimed Confidential – May 2011

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: VOC-B6.1, 7.1, 8.1, 9.1	Emission unit name: UV Rollcoaters	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
UV Rollcoater applicators with UV cure.

Manufacturer: Cefla	Model number: T20M/F	Serial number: N/A
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Construction date: 08/04/2004	Installation date: 10/21/2004	Modification date(s): 10/11/2005
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1000 Frames/HR

Maximum Hourly Throughput: 1000 Frames/HR	Maximum Annual Throughput:	Maximum Operating Schedule: 6,420 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

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

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.04	0.08
Total Particulate Matter (TSP)	0.04	0.08
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.04	0.10
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Aggregate HAP's	0.04	0.04
Formaldehyde	0.00	0.00
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

40CFR63 – Subpart JJ: Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations.

 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.)

40CFR63 – Subpart JJ: This emission unit will use a combination of compliance methods as defined in 40CFR63.804(a)(4) by utilizing a combination of a VHAP averaging, compliant materials and the use of a control system. The unit will maintain compliance with the provisions of Subpart JJ for training, recordkeeping, monitoring and reporting.

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:

E1

Emission unit name:

Dust Collection

List any control devices associated with this emission unit.

BH1

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

Various woodworking operations including sawing, molding and sanding

Manufacturer:

Foust

Model number:

Pneumafil 13.5-460-10

Serial number:

N/A

Construction date:

08/2004

Installation date:

12/20/2004

Modification date(s):

N/A

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

53,000 CFM

Maximum Hourly Throughput:

25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO _x)			
Lead (Pb)			
Particulate Matter (PM ₁₀)	0.59	2.60	
Total Particulate Matter (TSP)	0.59	2.60	
Sulfur Dioxide (SO ₂)			
Volatile Organic Compounds (VOC)			
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
<p>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.).</p> <p>Mass balance.</p>			

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E2

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Foust

Model number:
Pneumafil 13.5-460-10

Serial number:
N/A

Construction date:
08/2004

Installation date:
12/20/2004

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
53,000 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.59	2.60
Total Particulate Matter (TSP)	0.59	2.60
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number: E3	Emission unit name: Dust Collection	List any control devices associated with this emission unit. BH3
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various woodworking operations including sawing, molding and sanding

Manufacturer: Foust	Model number: Pneumafil 13.5-460-10	Serial number: N/A
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Construction date: 08/2004	Installation date: 12/20/2004	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 48,725 CFM

Maximum Hourly Throughput: 25,000 lbs lumber/hr	Maximum Annual Throughput:	Maximum Operating Schedule:
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Fuel Usage Data (fill out all applicable fields)

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

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

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

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

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO _x)			
Lead (Pb)			
Particulate Matter (PM ₁₀)	1.19	5.21	
Total Particulate Matter (TSP)	1.19	5.21	
Sulfur Dioxide (SO ₂)			
Volatile Organic Compounds (VOC)			
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
<p>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.).</p> <p>Mass balance.</p>			

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E6

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH4

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Foust

Model number:
Pneumafil 13.5-460-10

Serial number:
N/A

Construction date:
08/2004

Installation date:
12/20/2004

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
48,725 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes X No

If yes, is it?

___ Indirect Fired ___ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	1.19	5.21
Total Particulate Matter (TSP)	1.19	5.21
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E7

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH5

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Foust

Model number:
Pneumafil 13.5-460-10

Serial number:
N/A

Construction date:
08/2004

Installation date:
12/20/2004

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
13,500 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.37	1.62
Total Particulate Matter (TSP)	0.37	1.62
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E8

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH6

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Foust

Model number:
Pneumafil 13.5-460-10

Serial number:
N/A

Construction date:
08/2004

Installation date:
12/20/2004

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
13,500 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.37	1.62
Total Particulate Matter (TSP)	0.37	1.62
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E17

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH7

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Airlanco

Model number:
Airlanco 450/378RLP10

Serial number:
N/A

Construction date:
September 2015

Installation date:
November 2015

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
55,000 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:
24 hours/day, 7 days/week, 50 weeks/year

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	4.29	18.79
Total Particulate Matter (TSP)	4.29	18.79
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E18

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH8

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Airlanco

Model number:
Airlanco 450/378RLP10

Serial number:
N/A

Construction date:
2013

Installation date:
2013

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
50,000 ACFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:
24 hours/day, 7 days/week, 50 weeks/year

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	4.29	18.79
Total Particulate Matter (TSP)	4.29	18.79
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E19

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH9

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Airlanco

Model number:
Airlanco 450/378RLP10

Serial number:
N/A

Construction date:
July 2015

Installation date:
August 2015

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
54,000 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:
24 hours/day, 7 days/week, 50 weeks/year

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	4.63	20.27
Total Particulate Matter (TSP)	4.63	20.27
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number: E20	Emission unit name: Dust Collection	List any control devices associated with this emission unit. BH10
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various woodworking operations including sawing, molding and sanding

Manufacturer: Airlanco	Model number: Airlanco 450/378RLP10	Serial number: N/A
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Construction date: July 2015	Installation date: August 2015	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 54,000 CFM

Maximum Hourly Throughput: 25,000 lbs lumber/hr	Maximum Annual Throughput:	Maximum Operating Schedule: 24 hours/day, 7 days/week, 50 weeks/year
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Fuel Usage Data (fill out all applicable fields)

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

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	4.63	20.27
Total Particulate Matter (TSP)	4.63	20.27
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>Mass balance.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
E21

Emission unit name:
Dust Collection

List any control devices associated with this emission unit.
BH11

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various woodworking operations including sawing, molding and sanding

Manufacturer:
Airlanco

Model number:
Airlanco 312/275RLP10

Serial number:
N/A

Construction date:
July 2015

Installation date:
August 2015

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
54,000 CFM

Maximum Hourly Throughput:
25,000 lbs lumber/hr

Maximum Annual Throughput:

Maximum Operating Schedule:
24 hours/day, 7 days/week, 50 weeks/year

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☐ Yes ☒ No

If yes, is it?

☐ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	4.63	20.27
Total Particulate Matter (TSP)	4.63	20.27
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>Mass balance.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

45CSR7-3.1: All PM-emitting vent points other than the RTO vent points; 20% max. opacity from all PM-emitting vent points other than the RTO vent points.

45CSR7-4.1: All PM-emitting vent points other than the RTO vent points; PM emission limits from all PM-emitting vent points other than the RTO vent points.

☒ 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.)

45CSR7-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR7-4.1: Proper operation and maintenance of baghouses, filters, and any other means employed to limit PM emissions.

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

Emission unit ID number:
B1

Emission unit name:
600 HP Wood Fired Boiler

List any control devices associated with this emission unit.
C1

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Wood fired boiler with a rated capacity of 600 HP (28.8 MMBTU/HR)

Manufacturer:
Hurst Boiler and Welding Co. Inc.

Model number:
HYB-600-150-DF

Serial number:
N/A

Construction date:
08/2004

Installation date:
12/20/2004

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
28.8 MMBTU/HR (600 HP)

Maximum Hourly Throughput:
3,618 lbs wood/HR

Maximum Annual Throughput:
15,849 tons/year

Maximum Operating Schedule:
8,760 hrs/year

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☒ Yes ☐ No

If yes, is it?

☒ Indirect Fired ☐ Direct Fired

Maximum design heat input and/or maximum horsepower rating:
28.8 MMBTU/HR (600 HP)

Type and Btu/hr rating of burners:
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.

Wood Dust: 3,618 lbs wood/HR; 15,849 tons/year

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Wood Dust	0.5%	1.5%	1,000

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	37.84	
Nitrogen Oxides (NO _x)	5.10	
Lead (Pb)	0.01	
Particulate Matter (PM ₁₀)	36.00	
Total Particulate Matter (TSP)	36.00	
Sulfur Dioxide (SO ₂)	0.25	
Volatile Organic Compounds (VOC)	0.41	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Manganese	0.21	
Benzene	0.03	
Formaldehyde	0.03	
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>AP-42 Chapter 1.6 Wood Residue Combustion In Boilers (September, 2003)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

40CFR60 – Subpart Dc: Minor recordkeeping and notifications are the only requirements for natural gas boilers and wood boilers under 30 MMBtu/hr.

40CFR63 – Subpart DDDDD: National Emission Standards for Industrial/Commercial/Institutional Boilers and Process Heaters applies to the Wood Boiler (B1).

45CSR2-3.1: 20% max. opacity from vent points.

45CSR2-4.1: Indirect heat exchangers with design heat input (DHI) > 10 MMBtu/hr; PM emission limits and operating hours.

45CSR10-3.3.f: Indirect heat exchangers with design heat input (DHI) > 10 MMBtu/hr; SO₂ emission limits.

☒ 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.)

40CFR60 – Subpart Dc: Monitoring & recordkeeping of fuel usage and operating hours.

40CFR63 – Subpart DDDDD: The unit will demonstrate compliance with the emissions requirements for TSM utilizing the fuels testing methods found in Appendix A of the standard. The facility has met the initial notification requirements and protocol approval for the fuels testing plan and submitted the results of the fuels testing to WVDAQ on May 10, 2005. The unit will continue to comply with all monitoring, recordkeeping and reporting requirements of the MACT.

45CSR2-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR2-4.1: Emission calculations using current AP-42 emission factors; monitoring & recordkeeping of fuel usage.

45CSR10-3.3.f: Emission calculations using current AP-42 emission factors; monitoring & recordkeeping of fuel usage and operating hours.

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

Emission unit ID number: B2	Emission unit name: 300 HP Gas Fired Boiler	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Manufacturer: Hurst Boiler and Welding Co. Inc.	Model number: S400-300-150	Serial number: N/A
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Construction date: 06/2004	Installation date: 12/20/2004	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
12.6 MMBTU/Hr (300 HP)

Maximum Hourly Throughput: 12,600 ft ³ /hr	Maximum Annual Throughput: 110,376,000 ft ³ /yr	Maximum Operating Schedule: 8760 hrs/yr
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Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 12.6 MMBTU/Hr (300 HP)	Type and Btu/hr rating of burners: Automatic full modulation 12.6 MMBTU/HR
--	---

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.
Natural Gas; 12,600 ft³/hr, 110,376,000 ft³/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.5 gr/100 ft ³	N/A	1,000 BTU/ft ³

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.06	
Nitrogen Oxides (NO _x)	1.26	
Lead (Pb)	6.3E-06	
Particulate Matter (PM ₁₀)	0.1001	
Total Particulate Matter (TSP)	0.10	
Sulfur Dioxide (SO ₂)	0.01	
Volatile Organic Compounds (VOC)	0.07	
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	9.5E-04	
Hexane	0.02	
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

AP-42 Chapter 1.4 Natural Gas Combustion (July, 1998)

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

40CFR60 – Subpart Dc: Minor recordkeeping and notifications are the only requirements for natural gas boilers and wood boilers under 30 MMBtu/hr.

45CSR2-3.1: 20% max. opacity from vent points.

45CSR2-4.1: Indirect heat exchangers with design heat input (DHI) > 10 MMBtu/hr; PM emission limits and operating hours.

45CSR10-3.3.f: Indirect heat exchangers with design heat input (DHI) > 10 MMBtu/hr; SO₂ emission limits.

☒ 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.)

40CFR60 – Subpart Dc: Monitoring & recordkeeping of fuel usage and operating hours.

45CSR2-3.1: Periodic visual observation and recordkeeping of visual observations.

45CSR2-4.1: Emission calculations using current AP-42 emission factors; monitoring & recordkeeping of fuel usage.

45CSR10-3.3.f: Emission calculations using current AP-42 emission factors; monitoring & recordkeeping of fuel usage and operating hours.

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

Emission unit ID number:
B4

Emission unit name:
Gas Fired Water Heater

List any control devices associated with this emission unit.
N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Water heater used as a backup for drying ovens on finishing line

Manufacturer:
Buderus

Model number:
515/8

Serial number:
N/A

Construction date:
11/2005

Installation date:
12/2005

Modification date(s):
N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1.216 MMBTU/Hr

Maximum Hourly Throughput:
1216 ft³/hr

Maximum Annual Throughput:
10,700,000 ft³/yr

Maximum Operating Schedule:
8760 hrs/yr

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ☒ Yes ☐ No

If yes, is it?

☐ Indirect Fired ☒ Direct Fired

Maximum design heat input and/or maximum horsepower rating:
1.216 MMBTU/Hr

Type and Btu/hr rating of burners:
Automatic full modulation

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.

Natural Gas; 1216 ft³/hr, 10,700,000ft³/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.5 gr/100 ft ³	N/A	1,000 BTU/ft ³

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.10	0.45
Nitrogen Oxides (NO _x)	0.12	0.53
Lead (Pb)	6.1E-07	0.00
Particulate Matter (PM ₁₀)	0.01	0.04
Total Particulate Matter (TSP)	0.01	0.04
Sulfur Dioxide (SO ₂)	0.00	0.00
Volatile Organic Compounds (VOC)	0.01	0.06
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde	9.5E-05	0.00
Hexane	0.00	0.01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>AP-42 Chapter 1.4 Natural Gas Combustion (July, 1998)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

40CFR60 – Subpart Dc: Minor recordkeeping and notifications are the only requirements for natural gas boilers and wood boilers under 30 MMBtu/hr.

45CSR2-3.1: 20% max. opacity from vent points.

☒ 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.)

40CFR60 – Subpart Dc: Monitoring & recordkeeping of fuel usage and operating hours.

45CSR2-3.1: Periodic visual observation and recordkeeping of visual observations.

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

Emission unit ID number: E11	Emission unit name: Bulk Storage Tanks	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Bulk storage of finishing materials containing VOC

Manufacturer: N/A	Model number: N/A	Serial number: N/A
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Construction date: 6/2004	Installation date: 10/2004	Modification date(s): 10/11/2005
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 T1-T5: 5,500 gallons T6: 3,000 gallons T7-T11: 150 gallons T12-17: 100 gallons

Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule:
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Fuel Usage Data (fill out all applicable fields)

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.08	0.25
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

EPA TANKS 3.0 (Mass Balance)

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

None.

☒ 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.)

Record of all tank deliveries.

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

Emission unit ID number: PR	Emission unit name: Bulk Storage Tanks – Pump Room	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Bulk storage of solvent, sealer, paint, etc. containing VOC

Manufacturer: N/A	Model number: N/A	Serial number: N/A
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Construction date: 6/2004	Installation date: 10/2004	Modification date(s): 2007
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Not to exceed 19,812 gallons per tank

Maximum Hourly Throughput:	Maximum Annual Throughput:	Maximum Operating Schedule: 8,760 hours per year
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Fuel Usage Data (fill out all applicable fields)

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	1.48	6.4
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Volatile Organic Compounds (VOC)	1.48	6.4
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

EPA TANKS 3.0 (Mass Balance)

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

None.

☒ 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.)

Record of all deliveries.

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

Emission unit ID number:
E9/E10

Emission unit name:
All controlled emissions from
finishing operations

**List any control devices associated
with this emission unit.**
RTO1/RTO2

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various automatic and robotic spray operations with hot air oven cure

Manufacturer:
Various

Model number:
Various

Serial number:
N/A

Construction date:
08/04/2004

Installation date:
10/21/2004

Modification date(s):
10/11/2005

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,000 doors/375 drawer fronts per hour

Maximum Hourly Throughput:
1,000 doors/375 drawer fronts per
hour

Maximum Annual Throughput:

Maximum Operating Schedule:
6,240 hours/yr

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes ☒ No

If yes, is it?

___ Indirect Fired ___ Direct Fired

Maximum design heat input and/or maximum horsepower rating:

Type and Btu/hr rating of burners:

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

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

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	69.37	216.56
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Aggregate HAP's	22.31	70.6
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Mass balance of finishing materials; oxidizer performance verified through stack test on June 6-9, 2005 and submitted to WVDAQ.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. 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.

40CFR63 – Subpart JJ: Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations.

 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.)

40CFR63 – Subpart JJ: This emission unit will use a combination of compliance methods as defined in 40CFR63.804(a)(4) by utilizing a combination of a VHAP averaging, compliant materials and the use of a control system. The unit will maintain compliance with the provisions of Subpart JJ for training, recordkeeping, monitoring and reporting.

Are you in compliance with all applicable requirements for this emission unit? X Yes No

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

ATTACHMENT G

Air Pollution Control Device Form

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH1	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Pneumafil	Model number: 13.5-460-10	Installation date: March, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 53,000 acfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 5,750 ft ² ; Air to cloth ratio: 8.96:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH2	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Pneumafil	Model number: 13.5-460-10	Installation date: March, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 53,000 acfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 5,750 ft ² ; Air to cloth ratio: 8.99:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH3	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Pneumafil	Model number: 13.5-460-10	Installation date: March, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 48,725 acfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 5,750 ft ² ; Air to cloth ratio: 8.47:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH4	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Pneumafil	Model number: 13.5-460-10	Installation date: March, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 48,725 acfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 5,750 ft ² ; Air to cloth ratio: 3.27:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH5	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Pneumafil	Model number: 13.5-460-10	Installation date: March, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 53,000 acfm; P: 0.5" – 4.0" H ₂ O across bags; 120 bags; Total Cloth Area: 1,500 ft ² Air to cloth ratio: 8.96:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
BH6

List all emission units associated with this control device.
Various woodworking equipment

Manufacturer:
Pneumafil

Model number:
13.5-460-10

Installation date:
March, 2004

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
PM	100%	99.9%
PM10	100%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Flow rate: 53,000 acfm; P: 0.5" – 4.0" H₂O across bags; 460 bags; Total Cloth Area: 1,500 ft² Air to cloth ratio: 8.96:1

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

Describe the parameters monitored and/or methods used to indicate performance of this control device.
Differential pressure across the bags

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH7	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Airlanco	Model number: Airlanco 450/378RLP10	Installation date: 2013
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99%
PM10	100%	99%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 55,000 cfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 1,500 ft ² Air to cloth ratio: 8.96:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Visible emissions notations once per month and pressure drop readings once per day.		

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
BH8

List all emission units associated with this control device.
Various woodworking equipment

Manufacturer:
Airlanco

Model number:
Airlanco 450/378RLP10

Installation date:
2013

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
PM	100%	99%
PM10	100%	99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Flow rate: 55,000 cfm; P: 0.5" – 4.0" H₂O across bags; 460 bags; Total Cloth Area: 1,500 ft² Air to cloth ratio: 8.96:1

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

Describe the parameters monitored and/or methods used to indicate performance of this control device.
Visible emissions notations once per month and pressure drop readings once per day.

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH9	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Airlanco	Model number: Airlanco 450/378RLP10	Installation date: August 2015
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 54,000 acfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 1,500 ft ² Air to cloth ratio: 8.96:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
BH10

List all emission units associated with this control device.
Various woodworking equipment

Manufacturer:
Airlanco

Model number:
Airlanco 450/378RLP10

Installation date:
August 2015

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
PM	100%	99.9%
PM10	100%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Flow rate: 54,000 acfm; P: 0.5" – 4.0" H₂O across bags; 460 bags; Total Cloth Area: 1,500 ft² Air to cloth ratio: 8.96:1

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

Describe the parameters monitored and/or methods used to indicate performance of this control device.
Differential pressure across the bags

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: BH11	List all emission units associated with this control device. Various woodworking equipment	
Manufacturer: Airlanco	Model number: Airlanco 312/275RLP10	Installation date: August 2015
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	100%	99.9%
PM10	100%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Flow rate: 54,000 acfm; P: 0.5" – 4.0" H ₂ O across bags; 460 bags; Total Cloth Area: 1,500 ft ² Air to cloth ratio: 8.96:1		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Differential pressure across the bags		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: C1	List all emission units associated with this control device.	
Manufacturer: Hurst Boiler and Welding Co.	Model number: HYB-150-DF Wood Blr	Installation date: October, 2004
Type of Air Pollution Control Device: <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
PM	80%	80%
PM10	80%	80%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). 13,998 acfm; Particulate load 36 lb/hr; Inlet/outlet temp: 379°F; P: 2.0"-4.0" H ₂ O		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. ; P: 2.0"-4.0" H ₂ O		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: RTO1	List all emission units associated with this control device. All controlled finishing	
Manufacturer: Megtec Systems	Model number: EII-450-95	Installation date: October, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
VOC	92% (minimum)	95% (minimum)
VHAP's	92% (minimum)	95% (minimum)
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Maximum flow rate: -45,000 45,00058,500 scfm; VOC destruction efficiency: 95% @ 1500°F (minimum); Inlet pressure: -3" H ₂ O		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Combustion chamber temperature; Inlet duct negative pressure; Room negative pressure.		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: RTO2	List all emission units associated with this control device. All controlled finishing	
Manufacturer: Megtec Systems	Model number: EII-450-95	Installation date: October, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
VOC	92% (minimum)	95% (minimum)
VHAP's	92% (minimum)	95% (minimum)
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Maximum flow rate: 45,000 scfm; VOC destruction efficiency: 95% @ 1500°F (minimum); Inlet pressure: -3" H ₂ O		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Combustion chamber temperature; Inlet duct negative pressure; Room negative pressure.		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: RTO3	List all emission units associated with this control device. All controlled finishing	
Manufacturer: Megtec Systems	Model number: EII-450-95	Installation date: October, 2004
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
VOC	92% (minimum)	95% (minimum)
VHAP's	92% (minimum)	95% (minimum)
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Maximum flow rate: 60,000 scfm; VOC destruction efficiency: 95% @ 1500°F (minimum); Inlet pressure: -3" H ₂ O		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Combustion chamber temperature; Inlet duct negative pressure; Room negative pressure.		

ATTACHMENT H

Compliance Assurance Monitoring (CAM) Form

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.

☐ **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) ^a **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	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
Baghouse BH9	WW Baghouse	PM, PM10, PM2.5	Baghouse	45 CSR7-4.1	Monthly visible emissions notations Daily pressure drop readings
Baghouse BH10	WW Baghouse	PM, PM10, PM2.5	Baghouse	45CSR7-4.1	Monthly visible emissions notations Daily pressure drop readings
Baghouse BH11	WW Baghouse Related to Finising Line 3	PM, PM10, PM2.5	Baghouse	45CSR7-4.1	Monthly visible emissions notations Daily pressure drop readings
Baghouse BH7	WW Baghouse	PM, PM10, PM2.5	Baghouse	45CSR7-4.1	Monthly visible emissions notations Daily pressure drop readings
Baghouse BH8	WW Baghouse	PM, PM10, PM2.5	Baghouse	45CSR7-4.1	Monthly visible emissions notations Daily pressure drop readings
<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

^a 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).

^b 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).

^c 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: BH7, BH8, BH9, BH10, and BH11	4b) Pollutant: PM, PM10, PM2.5	4c) ^a Indicator No. 1: Baghouse Pressure Drop	4d) ^a Indicator No. 2: Baghouse visible emissions
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Daily pressure drop readings	Monthly visible emission notations
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		0.5" and 4.0" of water	Yes or No
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		pressure gauge	observation
^c 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:		manufacturer's recommendations	employee training
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.):		maintain gauge according to manufacturer's specifications	employee training
^d Provide the <u>MONITORING FREQUENCY</u> :		Daily	Monthly
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Daily records of observations	Monthly records of observations
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		N/A	N/A

^a 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.

^b 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.

^c 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.

^d 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:
Baghouse BH7, Baghouse BH8, Baghouse BH9
Baghouse BH10, Baghouse BH11

6b) Regulated Air Pollutant:
PM, PM10, PM2.5

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):

Monitoring requirements are the same for all bahouses

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:

The pressure drop range is the same for all baghouses

ATTACHMENT I

Business Confidential Claims

**Cover Document
Confidential Information**

**Application for NSR Permit and Title V Permit Revision
American Woodmark Corporation, South Branch
Moorefield, West Virginia
August Mack Project Number JQ0600.253**

Company Name	American Woodmark Corporation, South Branch	Responsible Official		
Company Address	587 Robert C. Byrd Industrial Park Road, Moorefield, WV 26836	Confidential Information Designee in State of West Virginia	Name	Paul Gall
			Title	Plant Manager
Person/Title Submitting Confidential Information	Todd Regula		Address	587 Robert C. Byrd Industrial Park Road, Moorefield, WV 26836
	Corporate Environmental, Health, and Safety Manager		Phone	(304) 530-1100

Reason for Submittal of Confidential Information: The confidential information is being submitted as a part of the application for NSR Permit and Title V Permit revision.

Identification of Confidential Information	Rationale for Confidential Claim	Confidential Treatment Time Period
Attachment E - Plot Plan	Disclosure of the confidential information is likely to cause substantial harm to American Woodmark Corporation's competitive position.	Permanently

Responsible Official Signature:	
Responsible Official Title:	Plant Manager
Date Signed:	

Attachment J

Emission Calculations

**Attachment J: Emissions Calculations
Emission Summary**

Page 1 of 13 Attachment J

**Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)**

Uncontrolled/Unlimited Potential to Emit Emissions in Tons/Year											
Emission Units/Operation	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs/CO ₂ e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (Toluene) (tons/yr)	
Finishing Line 3	84.6	84.6	84.6	-	-	1767.7	-	-	281.6	267.9	Toluene
Thermal Oxidizer	0.10	0.40	0.40	0.03	5.26	0.29	4.42	6345	0.10	1.8E-04	Toluene
Woodworking	60819.4	60819.4	60819.4	-	-	-	-	-	-	-	-
Recycle Still for Waste Solvent	-	-	-	-	-	5.37	-	-	5.37	5.37	Xylene
Ing. Natural Gas Combustion	0.03	0.14	0.14	0.011	1.80	0.10	1.51	2171	0.03	6.1E-05	Toluene
Total	60904.2	60904.6	60904.6	0.042	7.05	1773.5	5.93	8516	287.1	273.2	Toluene

Uncontrolled/Unlimited Actual Emissions in Tons/Year											
Emission Units/Operation	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs/CO ₂ e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (Toluene) (tons/yr)	
Finishing Line 3 (Actual Emissions)	48.4	48.4	48.4	-	-	1062.5	-	-	200.6	190.8	Toluene
Thermal Oxidizer	0.10	0.40	0.40	0.03	5.26	0.29	4.42	6345	0.10	1.8E-04	Toluene
Woodworking	60819.4	60819.4	60819.4	-	-	-	-	-	-	-	-
Recycle Still for Waste Solvent	-	-	-	-	-	5.37	-	-	5.37	5.37	Xylene
Ing. Natural Gas Combustion	0.03	0.14	0.14	0.011	1.80	0.10	1.51	2171	0.03	6.1E-05	Toluene
Total	60868.0	60868.4	60868.4	0.042	7.05	1068.3	5.93	8516	206.1	190.8	Toluene

Unlimited Potential to Emit After Integral Controls for Woodworking (tons/year)											
Emission Units/Operation	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs/CO ₂ e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (Toluene) (tons/yr)	
Finishing Line 3	0.08	0.08	0.08	-	-	1767.7	-	-	281.6	267.9	Toluene
Thermal Oxidizer	0.10	0.40	0.40	0.03	5.26	0.29	4.42	6345	0.10	1.8E-04	Toluene
Woodworking*	60.82	60.82	60.82	-	-	-	-	-	-	-	-
Recycle Still for Waste Solvent	-	-	-	-	-	5.37	-	-	5.37	5.37	Xylene
Ing. Natural Gas Combustion	0.03	0.14	0.14	0.011	1.80	0.10	1.51	2171	0.03	6.1E-05	Toluene
Total	61.0	61.4	61.4	0.042	7.05	1773.5	5.93	8516	287.1	273.2	Toluene

Unlimited Actual Emissions After Integral Controls for Woodworking (tons/year)											
Emission Units/Operation	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs/CO ₂ e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (Toluene) (tons/yr)	
Finishing Line 3 (Actual Emissions)	0.05	0.05	0.05	-	-	1062.5	-	-	200.6	190.8	Toluene
Thermal Oxidizer	0.10	0.40	0.40	0.03	5.26	0.29	4.42	6345	0.10	1.8E-04	Toluene
Woodworking*	60.82	60.82	60.82	-	-	-	-	-	-	-	-
Recycle Still for Waste Solvent	-	-	-	-	-	5.37	-	-	5.37	5.37	Xylene
Ing. Natural Gas Combustion	0.03	0.14	0.14	0.011	1.80	0.10	1.51	2171	0.03	6.1E-05	Toluene
Total	61.0	61.4	61.4	0.042	7.05	1068.3	5.93	8516	206.1	190.8	Toluene

Unlimited Potential to Emit After All Controls in (tons/year)											
Emission Units/Operation	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs/CO ₂ e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (Toluene) (tons/yr)	
Finishing Line 3 (Actual Emission)	0.08	0.08	0.08	-	-	222.74	-	-	35.5	33.8	Toluene
Thermal Oxidizer	0.10	0.40	0.40	0.03	5.26	0.29	4.42	6345	0.10	1.8E-04	Toluene
Woodworking*	60.82	60.82	60.82	-	-	-	-	-	-	-	-
Recycle Still for Waste Solvent	-	-	-	-	-	5.37	-	-	5.37	5.37	Xylene
Ing. Natural Gas Combustion	0.03	0.14	0.14	0.011	1.80	0.10	1.51	2171	0.03	6.1E-05	Toluene
Total	61.04	61.44	61.44	0.042	7.05	228.5	5.93	8516	41.0	39.1	Toluene

Unlimited Actual Emissions After All Controls in (tons/year)											
Emission Units/Operation	PM (tons/yr)	PM ₁₀ (tons/yr)	PM _{2.5} (tons/yr)	SO ₂ (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	GHGs/CO ₂ e (tons/yr)	Total HAPs (tons/yr)	Worst Single HAP (Toluene) (tons/yr)	
Finishing Line 3 (Actual Emission)	0.05	0.05	0.05	-	-	133.9	-	-	25.3	24.0	Toluene
Thermal Oxidizer	0.10	0.40	0.40	0.03	5.26	0.29	4.42	6345	0.10	1.8E-04	Toluene
Woodworking*	60.82	60.82	60.82	-	-	-	-	-	-	-	-
Recycle Still for Waste Solvent	-	-	-	-	-	5.37	-	-	5.37	5.37	Xylene
Ing. Natural Gas Combustion	0.03	0.14	0.14	0.011	1.80	0.10	1.51	2171	0.03	6.1E-05	Toluene
Total	61.00	61.40	61.40	0.042	7.05	139.6	5.93	8516	30.8	24.0	Toluene

*In October of 1993 a Final Order Granting Summary Judgment was signed by an Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 91-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls.

**Attachment J: Emissions Calculations
PTE VOC and Particulate
From Surface Coating Operations**

Page 2 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Spray Booth	Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Finishing Line 3																	
Spray Booth 1 - Stain	93322 Honey Oak Dispersion	6.91	98.06%	0.0%	98.06%	0.0%	1.14%	18.0	1.0	6.78	6.78	121.97	2927.21	534.22	2.64	594.38	75%
	93107 Band Cleaner	6.88	100.00%	0.0%	100.00%	0.0%	0.00%	1.0	1.0	6.88	6.88	6.88	165.12	30.13	0.00	0.00	75%
Spray Booth 2 - Stain	93322 Honey Oak Dispersion	6.91	98.06%	0.0%	98.06%	0.0%	1.14%	18.0	1.0	6.78	6.78	121.97	2927.21	534.22	2.64	594.38	75%
	93107 Band Cleaner	6.88	100.00%	0.0%	100.00%	0.0%	0.00%	1.0	1.0	6.88	6.88	6.88	165.12	30.13	0.00	0.00	75%
Spray Booth 3 - Top Coat	9305 Hi Solids Topcoat	7.91	50.05%	0.0%	50.05%	0.0%	44.38%	18.0	1.0	3.96	3.96	71.26	1710.27	312.12	77.88	8.92	75%
	93107 Band Cleaner	6.88	100.00%	0.0%	100.00%	0.0%	0.00%	1.0	1.0	6.88	6.88	6.88	165.12	30.13	0.00	0.00	75%
Manual Spray Booth	93322 Honey Oak Dispersion	6.91	98.06%	0.0%	98.06%	0.0%	1.14%	10.0	1.0	6.78	6.78	67.76	1626.23	296.79	1.47	594.38	75%

Finishing Line 3 Total before dry filters:	403.59	9686.27	1767.74	84.63
*Finishing Line 3 Total after dry filters:	403.59	9686.27	1767.74	0.08
Finishing Line 3 Total after dry filters and thermal oxidizer:			222.74	0.08
			VOC	PM/PM10/PM2.5

METHODOLOGY

* Particulate emissions after dry filters calculated using an efficiency of 99.9% for dry filters
VOC emissions after RTO calculated using a capture efficiency of 92% and a destruction efficiency of 95%
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

**Attachment J: Emissions Calculations
PTE HAP Emission Calculations**

Page 3 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Spray Booth	Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Methyl Isobutyl Ketone (MIBK)	Weight % Ethylbenzene	Weight % Xylene	Weight % Formaldehyde	Weight % Methanol	Weight % Toluene	Methyl Isobutyl Ketone (MIBK) (ton/yr)	Ethylbenzene (ton/yr)	Xylene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Toluene Emissions (ton/yr)
Finishing Line 1																
Spray Booth 1 - Stain	93322 Honey Oak Dispersion	6.91	18.0	1.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	93107 Band Cleaner	6.88	1.0	1.0	0.00%	0.00%	0.00%	0.00%	13.80%	35.20%	0.00	0.00	0.00	0.00	4.16	10.61
Spray Booth 2 - Stain	93322 Honey Oak Dispersion	6.91	18.0	1.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	93107 Band Cleaner	6.88	1.0	1.0	0.00%	0.00%	0.00%	0.00%	13.80%	35.20%	0.00	0.00	0.00	0.00	4.16	10.61
Spray Booth 3 - Top Coat	9305 Hi Solids Topcoat	7.91	18.0	1.0	0.00%	0.00%	0.18%	0.02%	0.00%	37.85%	0.00	0.00	1.12	0.12	0.00	236.04
	93107 Band Cleaner	6.88	1.0	1.0	0.00%	0.00%	0.00%	0.00%	13.80%	35.20%	0.00	0.00	0.00	0.00	4.16	10.61
Manual Spray Booth	93322 Honey Oak Dispersion	6.91	10.0	1.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Total Single HAPs for Finishing Line 3 =											0.00	0.00	1.12	0.12	12.48	267.86
Total Combined HAPs for Finishing Line 3 =											281.6					
Total Single HAPs After Control for Finishing Line 3 =											0.00	0.00	0.14	0.02	1.57	33.75
Total Combined HAPs After Control for Finishing Line 3 =											35.5					

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
Controlled HAPs Emission Rate (tons/yr) = Uncontrolled HAPs Emission Rate (tons/yr) * (1-0.931)

**Attachment J: Emissions Calculations
Limited VOC and Particulate Emissions
From Surface Coating Operations**

Page 4 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Spray Booth	Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Lb VOC/gal solids
Finishing Line 3																
Spray Booth 1 - Stain	93322 Honey Oak Dispersion	6.91	98.06%	0.0%	98.06%	0.0%	1.14%	14.4	1.0	6.78	6.78	97.57	1951.47	304.43	1.51	594.38
	93107 Band Cleaner	6.88	100.00%	0.0%	100.00%	0.0%	0.00%	1.0	1.0	6.88	6.88	6.88	137.60	21.47	0.00	0.00
Spray Booth 2 - Stain	93322 Honey Oak Dispersion	6.91	98.06%	0.0%	98.06%	0.0%	1.14%	14.4	1.0	6.78	6.78	97.57	1951.47	304.43	1.51	594.38
	93107 Band Cleaner	6.88	100.00%	0.0%	100.00%	0.0%	0.00%	1.0	1.0	6.88	6.88	6.88	137.60	21.47	0.00	0.00
Spray Booth 3 - Top Coat	9305 Hi Solids Topcoat	7.91	50.05%	0.0%	50.05%	0.0%	44.38%	14.4	1.0	3.96	3.96	57.01	1140.18	177.87	44.38	8.92
	93107 Band Cleaner	6.88	100.00%	0.0%	100.00%	0.0%	0.00%	1.0	1.0	6.88	6.88	6.88	137.60	21.47	0.00	0.00
Manual Spray Booth	93322 Honey Oak Dispersion	6.91	98.06%	0.0%	98.06%	0.0%	1.14%	10.0	1.0	6.78	6.78	67.76	1355.19	211.41	1.05	594.38

Finishing Line 3 Total before dry filters:	340.56	6811.11	1062.53	48.44
*Finishing Line 3 Total after dry filters:	340.56	6811.11	1062.53	0.048
Finishing Line 3 Total after dry filters and thermal oxidizer:			133.88	0.048
			VOC	PM/PM10/PM2.5

METHODOLOGY

* Particulate emissions after dry filters calculated using an efficiency of 99.9% for dry filters
VOC emissions after RTO calculated using a capture efficiency of 92% and a destruction efficiency of 95%
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (20 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (6240 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (6420 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

**Attachment J: Emissions Calculations
Limited HAP Emission Calculations**

Page 5 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Spray Booth	Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Methyl Isobutyl Ketone (MIBK)	Weight % Ethylbenzene	Weight % Xylene	Weight % Formaldehyde	Weight % Methanol	Weight % Toluene	Methyl Isobutyl Ketone (MIBK) (ton/yr)	Ethylbenzene (ton/yr)	Xylene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Toluene Emissions (ton/yr)
Finishing Line 1																
Spray Booth 1 - Stain	93322 Honey Oak Dispersion	6.91	18.0	1.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	93107 Band Cleaner	6.88	1.0	1.0	0.00%	0.00%	0.00%	0.00%	13.80%	35.20%	0.00	0.00	0.00	0.00	2.96	7.56
Spray Booth 2 - Stain	93322 Honey Oak Dispersion	6.91	18.0	1.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	93107 Band Cleaner	6.88	1.0	1.0	0.00%	0.00%	0.00%	0.00%	13.80%	35.20%	0.00	0.00	0.00	0.00	2.96	7.56
Spray Booth 3 - Top Coat	9305 Hi Solids Topcoat	7.91	18.0	1.0	0.00%	0.00%	0.18%	0.02%	0.00%	37.85%	0.00	0.00	0.80	0.09	0.00	168.14
	93107 Band Cleaner	6.88	1.0	1.0	0.00%	0.00%	0.00%	0.00%	13.80%	35.20%	0.00	0.00	0.00	0.00	2.96	7.56
Manual Spray Booth	93322 Honey Oak Dispersion	6.91	10.0	1.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
Total Single HAPs for Finishing Line 3 =											0.00	0.00	0.80	0.09	8.89	190.81
Total Combined HAPs for Finishing Line 3 =											200.6					
Total Single HAPs After Control for Finishing Line 3 =											0.00	0.00	0.10	0.01	1.12	24.04
Total Combined HAPs After Control for Finishing Line 3 =											25.3					

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 6240hrs/yr * 1 ton/2000 lbs
Controlled HAPs Emission Rate (tons/yr) = Uncontrolled HAPs Emission Rate (tons/yr) * (1-0.931)

**Attachment J: Emissions Calculations
Woodworking Emission Calculations**

Page 6 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Process	Baghouse	Air Flow Rate (acfm/min)	Outlet Grain Loading (grain/acfm)	Control Efficiency (%)	Uncontrolled PM Emissions* (ton/yr)	Controlled PM Emissions* (ton/yr)	PM/PM10/PM2.5 (lbs/hr)
Woodworking Operation Associated With Mill Operations	BH-9	54000	0.01	99.9%	20273.1	20.27	4.63
Woodworking Operation Associated With Mill Operations	BH-10	54000	0.01	99.9%	20273.1	20.27	4.63
Woodworking Operations Associated with Finishing System 3	BH-11	54000	0.01	99.9%	20273.1	20.27	4.63
Total:					60819.4	60.82	13.89

40.546286

Methodology

*Uncontrolled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Outlet Grain Loading (gr/acfm) / 7000 (gr/lb) * 60 min/hr * 8760 (hr/yr) / 2000 (lb/ton) / (1 - Control Efficiency)

**Controlled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Outlet Grain Loading (gr/acfm) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Attachment J: Emissions Calculations
Recycle Still for Waste Solvent Emission Calculations

Page 7 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Process	Density of Xylene (lb/gal)	% VOC	% HAP	Projected Throughput (gal/hr)	Uncontrolled VOC Emissions (ton/yr)	Controlled VOC Emissions (ton/yr)	Worst Case Single HAP (ton/yr)	Combined HAP (tons/yr)
Recycle Still for Waste Solvent	7.17	100%	100%	3.42	5.37	5.37	5.37	5.37
Total:					5.37	5.37		

Methodology

The recycle still for waste solvent onsite is totally enclosed and only open 5% of the time. The worst case solvent used is xylene which is both a VOC and a HAP. The calculations above determine the potential VOC and HAP emissions.
Tons VOC, HAP/yr = 53.42 gallons/hr * 7.17 lb/gal * 1.00 (VOC/HAP) * 8760 hr/yr * 1 ton/2000 lb * 0.05 (frac. Fugitive)
Worst case single HAP/yr and combined HAP/yr calculated as described above for Tons VOC/HAP/ yr.

Attachment J: Emissions Calculations
Natural Gas Combustion Only - Thermal Oxidizer
MM BTU/HR <100

Page 8 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Heat Input Capacity
CF/hr

Potential Throughput
MMCF/yr

12,000

105.1

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100 **see below	VOC	CO
Potential Emission in tons/yr	1.9	7.6	7.6	0.6	5.26	5.5	84
	0.10	0.40	0.40	0.03	0.29	4.42	

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 6240 hrs/yr x 1 MMCF/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Attachment J: Emissions Calculations
Natural Gas Combustion Only - Thermal Oxidizer
MM BTU/HR <100
HAPs Emissions

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Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.1E-04	6.3E-05	3.9E-03	9.5E-02	1.8E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.6E-05	5.8E-05	7.4E-05	2.0E-05	1.1E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.
 See Page 3 for Greenhouse Gas calculations.

Attachment J: Emissions Calculations
Natural Gas Combustion Only - Thermal Oxidizer
MM BTU/HR <100
Greenhouse Gas Emissions

Page 10 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

	Greenhouse Gas		
Emission Factor in lb/MMcf	CO2 120,000	CH4 2.3	N2O 2.2
Potential Emission in tons/yr	6,307	0.12	0.12
Summed Potential Emissions in tons/yr	6,307		
CO2e Total in tons/yr	6,345		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

**Attachment J: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100**

Page 11 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

Equipment	Heat Input Capacity (MMBtu/hr)	Equipment	Heat Input Capacity (MMBtu/hr)	Equipment	Heat Input Capacity (MMBtu/hr)
AWC-029 Heat Exchanger 1 - Flash Zone	0.317	AWC-047 Heat Exchanger 1 - Flash Zone	0.317	AWC-057 Heat Exchanger 1 - Flash Zone	0.317
AWC-029 Heat Exchanger 2 - Cure Zone	0.516	AWC-047 Heat Exchanger 2 - Cure Zone	0.516	AWC-057 Heat Exchanger 2 - Cure Zone	0.516
AWC-032 High Velocity IR Oven	0.536	AWC-049 High Velocity IR Oven	0.536	AWC-059 High Velocity IR Oven	0.536

Total	4.11	Heat Input Capacity (MMBtu/hr)	1000	36.0	Potential Throughput (MMCF/Yr)
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	Pollutant						
Emission Factor in lb/MMCF	PM* 1.9	PM10* 7.6	direct PM2.5* 7.6	SO2 0.6	NOx 100 **see below	VOC 5.5	CO 84
Potential Emission in tons/yr	3.42E-02	0.14	0.14	1.08E-02	1.80	0.10	1.51

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Attachment J: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Page 12 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.8E-05	2.2E-05	1.3E-03	3.2E-02	6.1E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	9.0E-06	2.0E-05	2.5E-05	6.8E-06	3.8E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.
 See Page 3 for Greenhouse Gas calculations.

Attachment J: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Page 13 of 13 Attachment J

Company Name: American Woodmark Corporation
Source Address: 587 Robert C. Byrd Industrial Park Road, Mooresfield, WV 26836
Permit Number: R-30-03100030-2011 (SM01)

	Greenhouse Gas		
Emission Factor in lb/MMcf	CO2 120,000	CH4 2.3	N2O 2.2
Potential Emission in tons/yr	2,159	0.041	0.040
Summed Potential Emissions in tons/yr	2,159		
CO2e Total in tons/yr	2,171		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).