

# Fact Sheet



## *For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act*

Permit Number: **R30-03100030-2011**

Application Received: **May 13, 2011**

Plant Identification Number: **03-054-031-00030**

Permittee: **American Woodmark Corporation**

Facility Name: **South Branch**

Mailing Address: **587 Robert C. Byrd Industrial Park Road, Moorefield, WV 26836**

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Physical Location: Moorefield, Hardy County, West Virginia  
UTM Coordinates: 677.73 km Easting • 4,327.129 km Northing • Zone 17  
Directions: From Town of Moorefield 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.

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### **Facility Description**

The main process of the facility is the manufacture and finishing of wood doors and frames for shipment to American Woodmark Corporation 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.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions <sup>2</sup></b>	<b>2009 Actual Emissions<sup>1</sup></b>
Carbon Monoxide (CO)	48.6	3.06
Nitrogen Oxides (NO <sub>x</sub> )	35.55	2.78
Particulate Matter (PM <sub>10</sub> )	54.09	1.45
Total Particulate Matter (TSP)	54.09	1.45 <sup>4</sup>
Sulfur Dioxide (SO <sub>2</sub> )	1.130	0.10
Volatile Organic Compounds (VOC)	249.1	77.16 <sup>5</sup>
<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2009 Actual Emissions<sup>1</sup></b>
Formaldehyde	0.154	0.02
Methanol	36.07 <sup>3</sup>	6.69
Ethyl benzene	8.96 <sup>3</sup>	1.81
Toluene	63.19 <sup>3</sup>	8.88
Xylene	38.22 <sup>3</sup>	7.70
Aggregate HAPs	149.6 <sup>7</sup>	27.63 <sup>6</sup>

<sup>1</sup> Actual emissions are from the 2010 Certified Emissions Statement Invoice, and represent emissions from January 1, 2009 through December 31, 2009.

<sup>2</sup> PTEs are from the renewal application unless otherwise noted.

<sup>3</sup> PTEs for methanol, ethyl benzene, toluene, and xylene are from technical correspondence (email from the permittee, dated August 31, 2011).

<sup>4</sup> Actual TSP emissions include 0.07 tons of particulate-HAP (hydrochloric acid).

<sup>5</sup> Actual VOC emissions include 27.63 tons of VOC-HAP.

<sup>6</sup> There are other HAPs listed in the 2010 CES that comprise this value, but are not listed here since they are of less mass.

<sup>7</sup> Aggregate HAPs PTE is from technical correspondence (email from the permittee, dated September 7, 2011).

### Title V Program Applicability Basis

This facility has the potential to 48.6 TPY of CO; 54.09 TPY of PM<sub>10</sub>; 249.1 TPY of VOC; 36.07 TPY of methanol; 63.19 TPY of toluene; 38.22 TPY of xylene; and 149.6 TPY of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, American Woodmark Corporation, South Branch Plant, is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Opacity and PM limits for boilers
	45CSR6	Open burning prohibited.
	45CSR7	PM and Opacity limits for manufacturing sources
	45CSR7A	Compliance Test Procedures for 45CSR7
	45CSR10	Sulfur dioxide limits for boilers
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits to construct/modify
	45CSR16	Standards of performance for new stationary sources pursuant to 40 CFR Part 60
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. 60 Subparts A and Dc	NSPS for Small Steam Generating Units
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63 Subpart JJ	NESHAPs-MACT Standards for Wood Furniture Manufacturing
	40 C.F.R. 63 Subpart ZZZZ	RICE MACT
	40 C.F.R. Part 64	Compliance Assurance Monitoring (CAM)
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-2571K	February 18, 2010	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's

operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

### Determinations and Justifications

For the following discussion the term "current permit" or "current Title V permit" means permit R30-03100030-2006 MM02, unless otherwise specifically noted. The changes discussed below pertain to the current permit.

- I. **45CSR2 - To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.** This rule is listed in the current permit shield section since it was included among the non-applicability determinations of the initial permit fact sheet. However, this could be confusing since it is contradictory, considering the fact certain rule requirements are applicable to permittee's boilers. Therefore, this discussion has been relocated in the renewal, and this rule is not included in renewal permit subsection 3.7. The boiler B1 has a design heat input capacity less than 100 MMBtu/hr. Based upon 45CSR§2-8.4.c the boiler B1 is only exempt from the *testing* specified in 45CSR§2-8.1.a and the *monitoring* specified in 45CSR§2-8.2. The Director reserves the right to require testing pursuant to divisions 8.1.b and 8.1.c. The requirements of this rule are in conditions 5.1.1., 5.1.2., 5.1.8. through 5.1.11., 5.3.1., and 5.4.1.
  
- II. **45CSR13, Permit No. R13-2571K.** The current operating permit contains the requirements of R13-2571J. A Class I Administrative Update was made to R13-2571J, and thus R13-2571K was issued on February 18, 2010. The revision was limited to changes within condition 4.1.17. of the NSR permit. In particular, the following changes were made:
  - a. The language "Finishing Line VOC-A, and Finishing Line VOC-B" was replaced with "all Finishing Operations".
  - b. The language "and curing and water based paints" was appended within the parenthetic phrase "(except for UV coating application)."

This revised underlying requirement is set forth as Title V renewal condition 6.1.2.

All other applicable requirements of R13-2571K are set forth in appropriate sections of the renewal operating permit. The following Title V permit conditions that contain underlying requirements from R13-2571K were modified for this renewal:

- i. **Condition 3.4.6.** This condition refers to multiple conditions throughout the renewal permit. The number within permit subsection 5.1. changed due to removal of non-applicable requirements. Thus, condition 5.1.17. has been changed to 5.1.12. to refer to the correct condition.
  
- ii. **Condition 4.1.1.** The current condition cites 4.1.11. of the NSR permit, and also cites 45CSR§7-4.1. It has been noted that underlying NSR condition 4.1.36. is not cited for any condition in the current permit. This underlying condition 4.1.36. is based upon 45CSR§7-4.1.; therefore, it can be cited where 45CSR§7-4.1. is cited in the operating permit. Thus, underlying condition 4.1.36. is added to the citation of authority for renewal permit condition 4.1.1. The streamlining language has also been modified to include underlying permit condition 4.1.36.
  
- iii. **Condition 5.1.1.** The current permit condition cites underlying condition "4.1.29." It is noted that 4.1.29.(c) is applicable to boiler B1. Therefore, the citation is revised to more specifically read "4.1.29.(c)". Similarly, the citation of 45CSR2 is also made more specific by adding the "c" at the end.

- iv. **Condition 5.1.2.** The current permit condition cites underlying condition “4.1.29.” It is noted that 4.1.29.(b) is applicable to boiler B2. Therefore, the citation is revised to more specifically read “4.1.29.(b)”. Similarly, the citation of 45CSR2 is also made more specific by adding the “b” at the end.
- v. **Condition 5.1.8.** Underlying NSR permit condition 4.1.27. was added to the citation of authority. This was done since it also specifies the 10% opacity limit.
- vi. **Condition 5.2.4.** Underlying condition 4.2.2.a. requires weekly monitoring of the differential pressures across the multicyclone (C1). For the CAM plan (discussed below), the permittee proposed hourly monitoring frequency of this parameter. Therefore, the language “once per week” has been replaced with “once per hour (while B1 is operating)”. Since this is more stringent than the underlying permit, italicized streamlining language has been added to note that compliance with the CAM monitoring frequency ensures compliance with the R13 permit monitoring frequency.
- vii. **Condition 5.2.5.** Underlying conditions 4.1.15. and 4.1.27. specify the 10% opacity limit and also provide for monitoring. Condition 4.2.4. also provides VE monitoring. Current Title V condition 5.2.5. combines all of these underlying monitoring requirements. However, 5.2.5. is incorrect in citing 45CSR§2-3.1. as authority since this particular rule section specifies the limit without specifying monitoring. Therefore, 45CSR§2-3.1. will not be included in the citation of this Title V condition.
- viii. **Conditions 3.4.6., 3.4.11., 5.4.2., 6.4.1., 7.4.1., and 7.4.2.** Underlying conditions required maintaining records for five (5) years. This is already specified in boilerplate condition 3.4.2. Thus, the language was replaced with a reference to the boilerplate recordkeeping condition.
- ix. **Condition 6.1.6.** The language “of Finishing Line VOC - A, and Finishing Line VOC-B (except for UV coating application and curing),” has been removed from this condition and replaced with new language in order to match the underlying permit condition 4.1.21.

### III. Miscellaneous Changes

- a. The format of the table of contents has been revised to match current “boilerplate”.
- b. The language of conditions 3.1.1. and 3.1.2. has been revised to match current language of 45CSR6.
- c. The citation of authority for condition 3.1.3. has been updated since 45CSR15 has been repealed and 45CSR34 now adopts 40 C.F.R. Part 61.
- d. Condition 3.3.1.d. has been added to the Title V “boilerplate” and the citation of authority has been revised.
- e. The language of conditions 3.5.3. and 3.5.5. has been revised to account for the requirement to submit the annual certification to the USEPA in electronic format only.

IV. **40 C.F.R. Part 64 Compliance Assurance Monitoring (CAM).** This regulation applies to the 600 HP wood-fired boiler (Em. Unit ID: B1) since the source meets all applicability criteria in 40 C.F.R. §§64.2(a)(1) through (3). It is subject to a PM mass rate limitation of (7.06 lb/hr in Title V condition 5.1.1.); uses a multicyclone (C1) to achieve compliance with the PM limit; and has potential pre-control device PM emissions greater than 100 TPY. According to the application, potential PM emissions are 36.00 lb/hr, and the maximum operating schedule is 8,760 hrs/yr. Thus, the potential annual emissions are  $(36.00 \text{ lb/hr}) \times (8,760 \text{ hrs/yr}) / (2,000 \text{ lb/ton}) = 157.7 \text{ TPY}$ .

The boiler B1 also does not meet any exemptions in §§64.2(b)(1)(i) through (vi). First, it does not meet the exemption at §64.2(b)(1)(i) because it is not subject to “Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.” Second, it does not meet the exemption at §64.2(b)(1)(vi) because the current Title V permit does not specify a continuous compliance determination method, as defined in 40 C.F.R §64.1. The regulation defines *Continuous compliance determination method* as “a method, specified by the applicable standard or an applicable permit condition, which: (1) Is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and (2) Provides data either in units of the standard or correlated directly with the compliance limit.” The current Title V permit requires the permittee to monitor and record once per week the differential pressure across the multicyclone (C1) that controls PM emissions from boiler B1. Recording pressure drop once per week does not constitute a “continuous basis, consistent with the averaging period established for the emission limitation.” Also, pressure drop values, measured in units of inches of water, are neither in units of pounds of PM per hour, nor are correlated directly with the mass rate limit. Since the means of compliance in the current permit does not meet the definition of *Continuous compliance determination method* in §64.1, the exemption in §64.2(b)(1)(vi) is not met. Boiler B1 is not subject to CAM for any other pollutant since the only control device employed for B1 is the multicyclone (C1), which controls only particulate matter emissions.

On June 6, 2011, the permittee submitted an administratively complete renewal application that included a CAM Plan for boiler B1. The permittee also submitted clarifying information in technical correspondence<sup>1</sup>, which will be included in the CAM Plan. Table 64A, below, summarizes the CAM plan that will be incorporated into the renewal operating permit. Elements of the CAM plan are referenced by permit condition numbers in parentheses.

**Table 64A – CAM Plan for the 28.8 MMBTU/hr Wood-fired Boiler (Em. Unit ID: B1)**

Criteria	Indicator No. 1 of 2	Indicator No. 2 of 2
I. <i>Indicator</i>	Visual emission from multicyclone (C1)	Differential pressure across multicyclone (C1)
<i>Measurement Approach</i>	<p>Conduct visible emission checks and/or opacity monitoring and recordkeeping.</p> <p>Method 22 observations shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive test dates (5.2.5.).</p> <p>If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within twenty-four (24) hours. An evaluation based upon 40CFR60 Appendix A, Method 9, shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being</p>	<p>Emissions from Wood Boiler B1 shall be vented to and controlled by a multicyclone (C1), prior to release to the atmosphere. This control device is designed to achieve a minimum guaranteed control efficiency of 80% for particulate matter emissions (5.1.7.). The permittee will monitor the differential pressure across the multicyclone to verify proper operation (5.2.4.).</p>

<sup>1</sup> July 26, 2011, email from Mr. Reginald Whitaker, Environmental Manager for the permittee.

Criteria	Indicator No. 1 of 2	Indicator No. 2 of 2
	observed (5.2.5.).	
II. <i>Indicator Range</i>	Emission of smoke and/or particulate matter into the open air which is greater than 10% opacity based on a six minute average (5.1.8., 5.1.9.).  An <b>excursion is defined</b> as emission of smoke and/or particulate matter into the open air which is greater than 10% opacity based on a six minute average (5.2.13.(a)).  Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 5.2.10., 5.4.4., and 5.5.4.).	The stabilized static pressure loss across the multicyclone (C1) shall not exceed 3.4 inches of water. (5.1.12.).  An alarm is set to trigger at any reading above 2.5 inches of water, in which case the permittee will investigate further. The alarm may go off for a period of 15 minutes before personnel can respond and investigate. Therefore, an <b>excursion is defined</b> as a pressure reading greater than 2.5 inches of water for a period of 30 minutes or longer (5.2.13.(b)).  Excursions trigger an inspection and evaluation, corrective action, recordkeeping and a reporting requirement (permit conditions 5.2.10., 5.4.4., and 5.5.4.).
<i>QIP threshold</i>	Neither a QIP nor its threshold are required at this renewal, but a QIP may be incorporated into the permit in accordance with 40 C.F.R. §64.8 (5.2.12.).	Neither a QIP nor its threshold are required at this renewal, but a QIP may be incorporated into the permit in accordance with 40 C.F.R. §64.8 (5.2.12.).
III. <i>Performance Criteria</i>		
A. <i>Data Representativeness</i>	Trained observer for Method 22 (5.2.5.).	Boiler multicyclone (C1) has differential pressure recorded hourly by Plant Alarm System (5.2.4.).  This frequency meets applicable monitoring frequency requirement in §64.3(b)(4)(iii).
B. <i>Verification of Operational Status</i>	Not applicable since there is no new monitoring equipment for this indicator (cf. §64.3(b)(2)), and the operational status of the existing monitoring equipment has already been confirmed.	Not applicable since there is no new monitoring equipment for this indicator (cf. §64.3(b)(2)), and the operational status of the existing monitoring equipment has already been confirmed.
C. <i>QA/QC Practices and Criteria</i>	Monthly visual inspections of observation documents as part of internal audits. Any abnormalities in the observation documents would be investigated to ensure that all issues have been corrected, and would be documented in an investigation report.	Differential pressure device (magnhelic) will be calibrated using an instrument to within 0.5% F.S. accuracy, and performed annually under a Preventative Maintenance order (5.2.14.).
D. <i>Monitoring frequency</i>	Monthly (5.2.5.)	Hourly (5.2.4.)
<i>Data Collection Procedure</i>	Observation shall take place during normal operations, and will be a minimum of 15 minutes duration (5.2.5.). Since this proposed duration for CAM is 15 minutes, but the underlying permit condition 4.2.4. requires 1-minute observations, which still applies to boiler B2, a parenthetical requirement has been inserted into the requirement for B1, and a streamlining note has been added at the end of the permit condition.	Recorded automatically into the Plant Alarm System (permit condition 5.2.4.).
<i>Averaging Period</i>	6-minute block average. Any observed emissions outside of operation guidelines (i.e., presence of visible emissions) will be investigated, problem corrected, and actions taken will be documented (5.2.5.). The permittee will shut boiler down if any twelve (12) incidents in a 24-hour period of visual emissions failing the normal 6-minute test cycle (5.2.13.(a)).	Any reading over 2.5 inches of water for a duration longer than 15 minutes will result in system alarm which must be investigated and problem corrected-visual emissions check done to insure proper boiler operation (5.2.13.(b)).

Indicators and the Monitoring Approach

B1 has an automated control system that monitors and alarms for out of specification operating parameters (fire rate, feed system, water, pressures, oxygen, etc.) which feed into the Plant Alarm System. Automatic shutdown occurs if operating conditions are not met. Additionally, the permittee has installed and monitors on an hourly basis the differential pressure across the multiclone ash collector. Given that the boiler control system monitors the operational specs, it is

felt that using visual emission and the multiclone differential pressure are the best methods to insure that the boiler always operates below the PM emission levels.

**Rationale and Justification**

40 C.F.R. §64.4(d)(2) provides that a permittee may submit indicator ranges (or procedures for establishing indicator ranges) that rely on engineering assessments and other data, provided that the owner or operator demonstrates that factors specific to the type of monitoring, control device, or pollutant-specific emissions unit make compliance or performance testing unnecessary to establish indicator ranges at levels that satisfy the criteria in §64.3(a). Engineering assessments performed by plant staff and equipment manufacturers provided the following details:

1. An engineering study was performed including complete fuel analysis during boiler start-up. Part of the study included performance testing of the entire boiler system and found that it was within limits for the boiler.
2. Complete PM and operational testing have been conducted annually since start-up in conjunction with inspection by outside inspectors as required by regulations. All defects requiring equipment repairs have been performed during the annual shut-downs. The manufacturer has been on-site annually as well to evaluate the boiler operation, and they have not noted any out of specification faults during those visits.
3. The fuel blend has not changed since boiler was put into service; therefore, (with all else being equal) emissions would be at the same level as during last performance testing.
4. Visual inspections have been done monthly since the boiler was placed in service with no noted visible emissions exceeding the permitted time or opacity limits. These documented observations are performed according to Method 22 by trained observers, which are done in compliance with the current Title V permit.
5. Manufacturer’s engineering suggests that monitoring of differential pressure across multiclone is best method ensure control of particulate matter emissions. Manufacturer’s criteria states that the multiclone will still function at 80% efficiency with a pressure drop of 3.5 in. w.c. (the normal operating range is 0-2 in. w.c.). Currently, the monitoring system will give an alarm which must be corrected, before it can be reset, set at 2.5" of water for any occurrence. Visual monitoring of emissions will also be performed during that time to determine the cause and reset the alarm. The permittee will shut boiler down if any twelve (12) incidents in a 24-hour period of visual emissions failing the normal 6-minute test cycle.

The foregoing facts demonstrate that additional compliance or performance testing are unnecessary to establish the indicator ranges. Thus, the requirement of §64.4(d)(2) is met.

Since none of the monitoring equipment is new or modified, the permittee is not required to implement verification procedures to confirm the operational status of the monitoring as described in 40 C.F.R. §64.3(b)(2). Furthermore, the operational status of the existing monitoring equipment has already been confirmed. If existing monitoring equipment is modified or replaced with new equipment, then such equipment will be installed, calibrated, and operated in accordance with the manufacturer’s recommendations, which will satisfy §64.3(b)(2).

Table 64B, below, lists the emission units not subject to 40 C.F.R. Part 64 with supporting rationale.

**Table 64B – Emission Units Not Subject to CAM**

Emission Unit ID	Emission Unit Description	Rationale
Various <i>(See permit section 1.1)</i>	Lines A & B VOC-emitting emission units: ovens, automatic robotic spray machines, hot air flash tunnels, roll coater machines, UV ovens, jet nozzles ovens, stain wiping machines	Pre-control VOC emissions from each emission unit is less than 100 TPY; therefore, applicability criterion 40 C.F.R. §64.2(a)(3) is not met.
Various	Lines A & B PM-emitting	Pre-control PM emissions from each emission unit is

Emission Unit ID	Emission Unit Description	Rationale
(See permit section 1.1)	emission units: Sanding machines, sanding conveyors, panel cleaning machines, denibbing machines	less than 100 TPY; therefore, applicability criterion 40 C.F.R. §64.2(a)(3) is not met.
PR	Bulk Storage Tanks - Pump Room	No control device is employed and emissions are less than major source thresholds; therefore, applicability criteria in 40 C.F.R. §§64.2(a)(2) and (3) are not met.
TB1	Paint Spray Booth	No control device is employed and emissions are less than major source thresholds; therefore, applicability criteria in 40 C.F.R. §§64.2(a)(2) and (3) are not met.
SD13	Sawdust Hopper	Potential pre-control emissions are less than major source threshold; therefore, applicability criterion in 40 C.F.R. §64.2(a)(3) is not met.
S1	Wood Dust Silo #1	Potential pre-control emissions are less than major source threshold; therefore, applicability criterion in 40 C.F.R. §64.2(a)(3) is not met.
B2	500 HP natural gas-fired boiler	No control device is employed on this emission unit; therefore, applicability criterion in 40 C.F.R. §64.2(a)(2) is not met.
B4	Natural gas-fired auxiliary boiler	No control device is employed on this emission unit; therefore, applicability criterion in 40 C.F.R. §64.2(a)(2) is not met.
FP1	Diesel-powered fire water pump	No control device is employed on this emission unit; therefore, applicability criterion in 40 C.F.R. §64.2(a)(2) is not met.
Mill Area	Mill Area Equipment	Pre-control PM emissions from each emission unit (as well as the entire Mill Area, if it were considered a single source) is less than 100 TPY; therefore, applicability criterion in 40 C.F.R. §64.2(a)(3) is not met.
SB02	Paint Spray Booth	The emission unit is not subject to an emission limitation or standard; therefore, applicability criterion in 40 C.F.R. §64.2(a)(1) is not met.
SB03	Paint Spray Booth	The emission unit is not subject to an emission limitation or standard; therefore, applicability criterion in 40 C.F.R. §64.2(a)(1) is not met.

V. **40 C.F.R. 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.** This regulation is listed in the current permit shield section since it was included among the non-applicability determinations of the initial permit fact sheet. However, this could be confusing since it is contradictory, considering the fact that recordkeeping and reporting requirements of this NSPS are applicable to boilers B1 and B2. Therefore, this discussion has been relocated in the renewal, and this NSPS is not included in renewal permit subsection 3.7. The permittee currently operates three (3) boilers at the facility. The wood-fired boiler B1 has a design capacity of 28.8 MMBtu/hr. The natural gas-fired boiler B2 has a design capacity of 20.9 MMBtu/hr. The natural gas-fired auxiliary boiler B4 has a design capacity of 1.22 MMBtu/hr.

The wood-fired **boiler B1** is subject to the recordkeeping and reporting requirements in 40 C.F.R. 60 Subpart Dc since it meets the applicability requirements of 40 C.F.R. §60.40c(a), which includes boilers constructed after June 9, 1989 and having a design heat input capacity between 10 MMBtu/hr and 100 MMBtu/hr. However, the boiler B1 is not subject to the PM weight emission standards specified under 40 C.F.R. §60.43c(b) because the boiler combusts only wood at a design heat input capacity less than 30 MMBtu/hr. Similarly, the boiler B1 is not subject to specific opacity requirements specified under 40 C.F.R. §60.43c(c) because the boiler combusts only wood at a design heat input capacity less than 30 MMBtu/hr. Since the boiler is not subject to 40 C.F.R. §60.43c(c), the boiler B1 is not required to operate a Continuous Opacity Monitoring System

(COMS) with the boiler as per 40 C.F.R. §60.47c(a). Furthermore, the boiler B1 is not subject to specific SO<sub>2</sub> emission standards, as per 40 C.F.R. §60.42c, because the boiler combusts only wood. The applicable requirements for B1 are in renewal conditions 5.2.1., 5.4.2., 5.5.1., and 5.5.2.

The natural gas-fired **boiler B2** is subject to 40 C.F.R. 60 Subpart Dc since it meets the applicability requirements of 40 C.F.R. §60.40c(a), which includes boilers constructed after June 9, 1989 and having a design heat input capacity between 10 MMBtu/hr and 100 MMBtu/hr. The majority of the provisions in 40 C.F.R. 60 Subpart Dc regulate the burning of coal, wood or oil either individually or in combination. None of the requirements of 40 C.F.R. §60.41c through 40 C.F.R. §60.47c apply to boiler B2 as they all refer to combustion of coal, wood or oil, or some combination thereof. The applicable requirements for B2 are in renewal conditions 5.2.2., 5.4.2., 5.5.1., and 5.5.2.

The **boiler B4** is not subject to 40 C.F.R. 60 Subpart Dc because its design heat input capacity is less than 10 MMBtu/hr, even though it was constructed after June 9, 1989.

Other changes pertaining to 40 C.F.R. 60 Subpart Dc are:

- The last sentence of condition 5.4.2. was italicized to distinguish it as being streamlining language. Also, new language “*that applies to B1 and B2*” was added to clarify that this NSPS requirement applies only to B1 and B2.
- The boilers B1 and B2 are added in parenthesis following the citation for condition 5.5.2. since this requirement applies to these sources, but not to boiler B4.

VI. **40 C.F.R. 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines.** The diesel-powered fire protection water pump engine (Em. Unit ID: FP1) is rated at 300-hp and is capable of generating a volumetric flow rate of 2,000-gpm. The engine was installed in 2004 when the facility was constructed. Being a diesel-fired engine, it is therefore a compression ignition (CI) RICE. The unit only operates when the permittee performs periodic testing to ensure that the unit will start up and run as required during a potential fire at the facility when the fire suppression system is activated.

The fire pump engine is located at a major source of HAP, and is not mobile. Therefore, in accordance with §63.6585, the engine is subject to this regulation. FP1 meets the criteria of §63.6590(a)(1)(ii), and is therefore an *Existing stationary RICE*. Since the engine is existing, it does not meet any of the criteria in §§63.6590(b)(1) and (2), and therefore is not subject to the respective limited requirements. Since the engine is compression ignition, it does not meet any of the criteria in §§63.6590(b)(3)(i) and (ii), and therefore is not subject to the respective limited requirements. Since the engine is rated less than 500 HP, it does not meet any of the criteria in §§63.6590(b)(3)(iii), (iv), and (v), and therefore is not subject to the respective limited requirements. Since the engine is located at a major source, it does not meet any of the criteria in §§63.6590(b)(3)(vi), (vii), and (viii), and therefore is not subject to the respective limited requirements. Since the engine is existing, it does not meet any of the criteria in §§63.6590(c)(1) through (7), and therefore is not subject to NSPS requirements in order to comply with MACT Subpart ZZZZ.

**Table ZZZZ**

Section	Condition	Discussion
§63.6595(a)(1)	11.1.1.	FP1 is an “existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.” Therefore, the compliance date is May 3, 2013. Since

Section	Condition	Discussion
		the compliance date is future at the time of this renewal, all other Subpart ZZZZ permit conditions end with a statement that makes each condition subject to the compliance date.
§63.6600	None	This section is not applicable since FP1 is rated less than 500 brake HP.
§63.6601	None	This section is not applicable since FP1 is existing.
§63.6602	11.1.2.	<p>This section is applicable since FP1 is existing, and is rated less than 500 brake HP, and is located at a major source. This section refers to applicable emissions limitations in Table 2c to Subpart ZZZZ. In Table 2c, the applicable requirements are for an emergency CI RICE, which are given in Row #1 of the table. None of the other requirements in Rows 2 through 12 of Table 2c are applicable to FP1.</p> <p>Since FP1 is not subject to non-startup emission limitations, this non-applicable language is not included in the last paragraph of the permit condition.</p>
§63.6603	None	This section is not applicable since FP1 is located at a major source.
§63.6604	None	This section is not applicable since FP1 is an emergency unit, and its site rating is not more than 300 brake HP.
§63.6605(a)	None	This section is not applicable since FP1 is not subject to emission limitations and operating limitations of Subpart ZZZZ.
§63.6605(b)	11.1.3.	This general duty requirement is included in the permit.
§63.6610	None	This section is not applicable since FP1 is rated less than 500 brake HP.
§63.6611	None	This section is not applicable since FP1 is existing.
§63.6612	None	<p>This section is applicable since FP1 is existing, and rated less than 500 brake HP at a major source. However, no specific requirements in §63.6612 apply to FP1, as is demonstrated below.</p> <p>§63.6612(a) refers to applicable requirements in Table 4 to Subpart ZZZZ. Row 1 of Table 4 can apply to CI stationary RICE that are complying with the requirement to reduce CO emissions. However, FP1 is not subject to any requirement to reduce CO emissions; therefore, §63.6612(a) does not apply.</p> <p>§63.6612(b) applies in the case when testing has already been performed. This requirement is not applicable to FP1.</p>
§63.6615	None	This section is not applicable since FP1 is not subject to emission limitations and operating limitations under Subpart ZZZZ.
§§63.6620(a) through (i)	None	This section is not applicable since FP1 is not subject to emission limitations and operating limitations under Subpart ZZZZ.
§63.6625(a)	None	This section is not applicable since there is no CEMS for FP1.
§63.6625(b)	None	This section is not applicable since there is no CPMS for FP1.
§63.6625(c)	None	This section is not applicable since FP1 does not fire landfill gas or digester gas.
§63.6625(d)	None	This section is not applicable since FP1 is an existing CI RICE.
§63.6625(e)	11.1.4.	FP1 meets the criteria of §63.6625(e)(2), and is therefore required to comply with this section. The language of both §63.6625(e)

Section	Condition	Discussion
		and §63.6625(e)(2) have been combined for the permit condition.
§63.6625(f)	11.1.5.	FP1 meets the criteria of §63.6625(f), and is therefore subject to the requirement. The non-applicable language “or an existing emergency stationary RICE located at an area source of HAP emissions” has not been included in the condition.
§63.6625(g)	None	This section is not applicable since FP1 is an emergency CI RICE.
§63.6625(h)	11.1.2.	This section is applicable to FP1, and has already been included in the requirements of §63.6602, Table 2c, Row 1. Thus, this section is cited along with §63.6602 rather than writing a separate and redundant condition.
§63.6625(i)	11.1.6.	The oil analysis program is an option mentioned in footnote 2 to Table 2c of Subpart ZZZZ. The oil analysis program is set forth in a separate permit condition with non-applicable language not included.
§63.6625(j)	None	This section is not applicable since FP1 is not a SI RICE.
§§63.6630(a) through (c)	None	<p>§63.6630(a) is not applicable since FP1 is not subject to emission and operating limitations from Subpart ZZZZ.</p> <p>§63.6630(b) is not applicable since FP1 is not subject to operating limitations from Subpart ZZZZ.</p> <p>The NOCS requirement of §63.6630(c) is not applicable since none of the requirements in §§63.6630(a) through (b) are applicable.</p>
§§63.6635(a) through (c)	None	<p>§63.6635(a) is not applicable since FP1 is not subject to emission and operating limitations from Subpart ZZZZ.</p> <p>§§63.6635(b) and (c) are not applicable since FP1 is not subject to any continuous monitoring in Subpart ZZZZ.</p>
§63.6640(a)	11.1.4.	Since FP1 is subject to requirements of Table 2c of Subpart ZZZZ, this section requires compliance with applicable methods in Table 6 to Subpart ZZZZ. In Table 6, the requirements of Row 9 are applicable to FP1. However, it is the same language as in §63.6625(e). Rather than writing a separate and redundant condition, this section it is cited with condition 11.1.4.
§63.6640(b)	11.5.1.	This applicable requirement requires the permittee to report deviations from the applicable requirements of a Table 2c to Subpart ZZZZ. Non-applicable language in the regulation has not been included in this permit condition. Due to the requirement to report according to §63.6650, a parenthetical reference to the corresponding permit condition has been added at the end of the permit condition.
§63.6640(c)	None	This section is reserved.
§63.6640(d)	None	This section is not applicable since FP1 is existing.
§63.6640(e)	11.5.2.	This section requires reporting when an applicable requirement in Table 8 to Subpart ZZZZ is not met. FP1 does not meet any of the criteria for exemptions given in this section; therefore, a permit condition has been written.
§63.6640(f)(1)	11.1.7.	This section applies to FP1 since it is an existing emergency stationary RICE less than 500 brake HP at a major source.

Section	Condition	Discussion
		For §63.6640(f)(1)(iii), all language except the first sentence pertain the emergency electric generators. Since FP1 cannot generate electricity, this language is not applicable. Therefore, all language of §63.6640(f)(1)(iii) will not be included in the condition, with the exception only of the first sentence.
§63.6640(f)(2)	None	This section is not applicable since FP1 is rated less than 500 brake HP.
§63.6645(a)(5)	None	This section provides an exemption to the notification requirements (including the NOCS under 40 C.F.R. §63.9(h)) for an existing stationary emergency RICE. Since FP1 meets these criteria, the notifications under §63.6645 do not apply.
§63.6645(b)	None	This section is not applicable since FP1 is rated less than 500 brake HP.
§63.6645(c)	None	This section is not applicable since FP1 is existing and rated less than 500 brake HP.
§63.6645(d)	None	This section is not applicable since an initial notification is not required. Requirements for initial notification are in §63.9(b), which is not applicable, in accordance with the determination regarding §63.6645(a)(5).
§63.6645(e)	None	This section is not applicable since FP1 is existing.
§63.6645(f)	None	This section is not applicable since an initial notification is not required.
§§63.6645(g) and (h)	None	These sections are not applicable to FP1 since no performance tests under Subpart ZZZZ are required.
§§63.6650(a) and (b)	None	These sections are not applicable to FP1 since it meets none of the criteria in Table 7 to Subpart ZZZZ.
§63.6650(c)	None	This section is not applicable since it pertains to Compliance Reports, which are not required for FP1 since it meets none of the criteria in Table 7 to Subpart ZZZZ.
§§63.6650(d) and (e)	None	This section is not applicable since no CMS is employed for FP1.
§63.6650(f)	11.5.3.	This section is an applicable requirement to report deviations (as defined in 40 C.F.R. §63.6675). This requirement is modified for insertion into the permit.
§63.6650(g)	None	This section is not applicable since FP1 is existing and does not fire landfill gas or digester gas.
§63.6655(a)	None	This section does not apply since FP1 is not subject to emission and operating limitations.
§63.6655(b)	None	This section does not apply since neither CEMS nor CPMS are employed for FP1.
§63.6655(c)	None	This section is not applicable since FP1 is existing and does not fire landfill gas or digester gas.
§63.6655(d)	None	This section does not apply since FP1 is not subject to emission and operating limitations.
§63.6655(e)	11.4.1.	This section requires demonstration of continuous compliance using recordkeeping of the information required by §63.6625(e) and §63.6625(e)(2). FP1 is an existing stationary emergency RICE; therefore, it meets the criteria of §63.6655(e)(2). Hence, this recordkeeping requirement has been written in the permit. The regulation language “any of the following stationary RICE”

Section	Condition	Discussion
		in the last sentence has been replaced with the applicable language “an existing stationary emergency RICE.”
§63.6655(f)	11.4.2.	FP1 meets the criteria of §63.6655(f)(1); therefore, this section is applicable. The language of both §63.6655(f) and §63.6655(f)(1) have been combined to create one coherent and applicable condition. The last sentence of the regulation language (i.e., the reference to “demand response operation”) is not included since FP1 does not generate electricity.
§63.6660(a), (b), and (c)	11.4.3.	These applicable requirements have been written in the permit.

VII. **40 C.F.R. 63, Subpart DDDDD (Boiler MACT) Requirements for Wood-Fired Boiler B1.** On February 21, 2011, EPA signed the final rule for the Boiler MACT. This rule was published in the Federal Register on March 21, 2011 which established the existing source compliance date as March 21, 2014 (the new source compliance date as May 20, 2011). The wood-fired boiler [B1] is rated at a maximum design heat input of 28.8 MMBtu/hr. The 40 C.F.R. 63, Subpart DDDDD, placeholder language has been included as permit condition 5.1.13.

On May 18, 2011 EPA published a Federal Register final rule (76 FR 28662-28664) staying 40 CFR 63, Subpart DDDDD in its entirety along with an indefinite delay of its effective date. This EPA action reads in part:

**Issuance of a Stay and Delay of Effective Date**

Pursuant to section 705 of the APA, the EPA hereby postpones the effectiveness of the Major Source Boiler MACT and the CISWI Rule until the proceedings for judicial review of these rules are complete or the EPA completes its reconsideration of the rules, whichever is earlier. By this action, we are delaying the effective date of both rules, published in the **Federal Register** on March 21, 2011 (76 FR 15608 and 76 FR 15704). The delay of the effective date of the CISWI Rule applies only to those provisions issued on March 21, 2011, and not to any provisions of 40 CFR part 60, subparts CCCC and DDDD, in place prior to that date. This delay of effectiveness will remain in place until the proceedings for judicial review are completed or the EPA completes its reconsideration of the rules, whichever is earlier, and the Agency publishes a notice in the **Federal Register** announcing that the rules are in effect.

**Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. **40 C.F.R. 60 Subparts K, Ka, Kb - Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced after June 11, 1973 and prior to May 19, 1978; after May 18, 1978, and prior to July 23, 1984; after July 23, 1984, respectively.** The permittee utilizes thirty-five (35) tanks at the facility. Regardless of the construction date, these New Source Performance Standards (NSPS) are applicable to tanks with capacities of at least 20,000 US gallon or 40,000 US gallon. The permittee's tanks T1 through T35 do not satisfy this requirement since the largest capacity tanks at the facility are 5,500 US gallon each. Therefore the tanks T1 through T35 are not subject to 40CFR60 Subparts K, Ka, Kb.

- b. **40 C.F.R. 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.** The permittee currently operates three (3) boilers at the facility. The wood-fired Boiler B1 has a design capacity of 28.8 MMBtu/hr. The natural gas-fired boiler B2 has a design capacity of 20.9 MMBtu/hr. The natural gas-fired auxiliary boiler B4 has a design capacity of 1.22 MMBtu/hr. The boilers listed above were constructed after June 19, 1984, which satisfies part of the applicability criteria. However, the boilers listed above have design heat input capacity less than 100 MMBtu/hr. The rule requires that both the construction date and the design heat input capacity criteria be met in order to be applicable to a source. Therefore the boilers listed are not subject to 40 C.F.R. 60 Subpart Db.
- c. **45CSR21 - Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds.** 45CSR21 applies to sources located in Putnam, Kanawha, Cabell, Wayne, and Wood Counties. American Woodmark's South Branch facility is located in Hardy County; therefore, it is not subject to 45CSR21.
- d. **45CSR27 - To Prevent and Control the Emissions of Toxic Air Pollutants.** Potential formaldehyde emissions (0.20 tpy or 400 lbs/yr) from this facility are below the applicability threshold of 1,000 pounds per year and are, therefore, exempt from 45CSR27.
- e. **45CSR29 - Rule Requiring the Submission of Emission Statements for Volatile Organic Compound Emissions and Oxides of Nitrogen Emissions.** 45CSR29 applies to stationary sources in Putnam, Kanawha, Cabell, Wayne, Wood, and Greenbrier Counties. American Woodmark's South Branch facility is located in Hardy County; therefore, it is not subject to 45CSR29.
- f. **45CSR13, R13-2571K, 4.1.43.** This construction permit condition is only applicable when the emissions from at least two emission units vent through the same stack (i.e., emission point). None of the boilers, or recuperative thermal oxidizers are installed and operated in this fashion. Therefore, this particular construction permit condition will not be included in the Title V permit.
- g. **45CSR13, R13-2571K, 4.1.45.** The construction permit condition 45CSR13, R13-2571D, 4.1.45. is based upon 45CSR§10-8.2.a. In the Exemptions and Recommendations set forth in 45CSR§10-10.3., all fuel burning units which combusts natural gas, wood or distillate oil, alone or in combination, shall be exempt from the testing, monitoring, recordkeeping, and reporting requirements set forth in 45CSR§10-8. Since boiler B1 combusts wood and B2 combusts natural gas, they are exempt from 45CSR§10-8 and the construction permit condition 45CSR13, R13-2571D, 4.1.45., is not applicable and will not be included in the Title V permit. The boiler B4 has a design heat input less than 10 MMBtu/hr, and in accordance with 45CSR§10-10.1., is exempt from sections 3, and sections 6 through 8 of 45CSR10.
- h. **45CSR13, R13-2571K, 4.1.46.** This construction permit condition states, "At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance." This construction permit condition is not an applicable requirement for Title V permitting. Therefore, this condition will not be included in the permittee's Title V permit. Any testing required will be permitted in accordance with 3.3. of the permit, and other specific test requirements that may be set forth in each section of the permit.
- i. **45CSR13, R13-2571K, 4.1.49. through 4.1.56., 4.3.2., 4.4.5., 4.5.3., and 4.5.4.** These conditions are based upon a vacated MACT Subpart DDDDD; therefore, the conditions are not applicable and are not included in the renewal permit.

- j. **Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.** The facility has not made any changes that trigger a PSD modification; therefore, the requirements of the GHG tailoring rule are non-applicable.
- k. **40 C.F.R. 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** This subpart applies to manufacturers, owners, and operators of stationary compression ignition internal combustion engines that have been constructed, reconstructed, or modified after various dates, the earliest of which is July 11, 2005. The fire water pump engine (FP1) is a compression ignition engine; however, it was constructed in 2004. Since FP1 does not meet the applicability criteria, the requirements of this subpart do not apply.
- l. **40 C.F.R. 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.** This subpart applies to manufacturers, owners, and operators of stationary spark ignition internal combustion engines that have been constructed, reconstructed, or modified after various dates, the earliest of which is June 12, 2006. The fire water pump engine (FP1) is a compression ignition engine; therefore, FP1 does not meet the applicability criteria and the requirements of this subpart do not apply.

### Request for Variances or Alternatives

None.

### Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

### Comment Period

Beginning Date: September 14, 2011  
Ending Date: October 14, 2011

All written comments should be addressed to the following individual and office:

Denton B. McDerment, P.E.  
Title V Permit Engineer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### Point of Contact

Denton B. McDerment, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

**Response to Comments (Statement of Basis)**

No comments were received from either the public or U.S. EPA.