



ARMSTRONG HARDWOOD FLOORING

P.O. Box 160 Route 250 South

Beverly, WV 26253

www.armstrong.com

September 30, 2015

West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Subject: Air Permit Application
Armstrong Hardwood Flooring – Beverly, WV
Plant ID 08300025
Permit No. R13-1147Q, Title V Permit No. R30-08300025-2013

Dear Sir or Madam:

Please find attached a combined air permit application for a Class II Administrative Update to the NSR permit and an Administrative Amendment to the Title V permit for proposed changes at the Armstrong Hardwood Flooring (Armstrong) facility located in Beverly, West Virginia. The changes to the Flooring Mill and Visually Distressed Flooring Lines will allow the facility to begin producing wire brushed visual products in varied widths. The addition of new equipment will impact the inlet air flow rates to Baghouse Nos. 2 and 5. However, no physical changes will be made on either the cyclones or baghouses which control PM and PM₁₀ emissions from the new or modified equipment. Expansion of the PUMA operations conveying system from one line to two and the introduction of a new white wash stain is expected to increase material consumption and utilization of the stain and PUMA ovens, thereby increasing actual VOC emissions. However, the VOC content of the new stain will be less than the black wash currently in use on PUMA Line #1 and therefore, no changes are being requested to the VOC emission limits for the Visually Distressed Flooring Lines.

The proposed process and operational modifications will not result in any increases to potential emissions or changes to any existing permit limits. The only proposed changes to the permit are based on a correction to the design air flow capacity of the No. 5 Baghouse, a revision to the design capacity of the flooring mill from an hourly average throughput rate to a daily maximum production rate, corrections to typographical errors in the permit, and a revision to the maximum throughput capacity of the Visually Distressed Flooring Lines.

The changes to the permit include

- In Table 1.1, revise the design capacity of the No. 5 Baghouse based on the correct air flow capacity.
- In Table 1.1, revise the maximum throughput capacity of the Visually Distressed Flooring Lines to 3,620 ft²/hr.

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- In Table 1.1, revise the average hourly throughput rate of 29,500 ft² per 8 hour shift of kiln-dried lumber per flooring mill line to a daily maximum production rate of 350,000 ft²/day of unfinished hardwood flooring for the flooring mill.
- In Table 5.1.1, revise the maximum PM and PM₁₀ emission rates from No. 5 Baghouse based on the correction to the design air flow capacity of the baghouse.
- Correct all references to the Visually Distressed Flooring Lines.

No new permit conditions or regulatory requirements are expected to be necessary to reflect the change in the facility's operations.

For questions regarding any information contained in this application, contact Jeff Arbogast, Safety Manager for the plant at (304) 338-7729 or Dennis Ruth, EHS Manager at (304) 338-7619.

Sincerely,



Steve Bullock
Plant Manager

Attachments

Prepared for:

ARMSTRONG HARDWOOD FLOORING COMPANY

P.O. Box 160
Beverly, WV 26253

**AIR PERMIT ADMINISTRATIVE UPDATE
ARMSTRONG HARDWOOD FLOORING
COMPANY – BEVERLY PLANT
Beverly, West Virginia**

Prepared by:



1050 Crown Pointe Parkway, Suite 550
Atlanta, Georgia 30338
Tel: 404-315-9113

September 2015

AIR PERMIT ADMINISTRATIVE UPDATE

ARMSTRONG HARDWOOD FLOORING COMPANY – BEVERLY PLANT
BEVERLY, WV 26253

Prepared for:

ARMSTRONG HARDWOOD FLOORING COMPANY – BEVERLY PLANT
P.O. Box 160
Beverly, WV 26253

Prepared by:



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Sandra P. Alvarado

Sandra P. Alvarado, PE
Senior Engineer

September 2015



AIR PERMIT ADMINISTRATIVE UPDATE

ARMSTRONG HARDWOOD FLOORING COMPANY – BEVERLY PLANT

**P.O. Box 160
Beverly, WV 26253**

September 2015

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1 INTRODUCTION

The Armstrong Hardwood Flooring Company – Beverly Mill is submitting an application for proposed changes to the Flooring Mill and Visually Distressed Flooring Lines, specifically PUMA Line #1. The changes will include installation of several saws and sanders that will allow the facility to begin producing wire brushed visual products in varied widths, repurposing of the existing PUMA lines, and expansion of the PUMA Line 1 conveying system from one line to two. In addition, a new hog will be installed in place of an identical hog that was previously moved. The addition of the new equipment will impact the inlet air flow rates to Baghouse Nos. 2 and 5. However, no physical changes will be made on either the cyclones or baghouses which control PM and PM₁₀ emissions from the new or modified equipment.

Expansion of the PUMA conveying system and the introduction of a new white wash stain will increase the throughput capacity of the system and actual VOC emissions. However, the VOC content of the new stain will be less than the black wash stain currently in use and no changes are being requested to the VOC emission limits for the Visually Distressed Flooring Lines.

The proposed process and operational modifications will not result in any changes to permit limits. The only proposed changes to the permit are based on a correction to the design air flow capacity of the No. 5 Baghouse, a revision to the design capacity of the flooring mill from an hourly throughput rate to an annual production rate, corrections to typographical errors in the permit, and a change to the maximum throughput capacity of the Visually Distressed Flooring Lines in Table 1.1. Additional details on the proposed changes to the permit are provided in Section 3.

1.1 General Facility Operations

Green lumber is purchased and stacked in the Mill Yard to facilitate air drying of the lumber. The lumber is then further dried in the steam heated pre-dryer and/or one of 38 lumber kilns. Kiln-dried lumber is transferred by one of three lumber tilts to the Mill rough end saws. The rough end saws cut the lumber into strips for transfer to one of six lines of knot saws, side matchers, and end matchers. The unfinished wood flooring is graded, stacked and either stored or transferred to one of two finishing lines. Finished hardwood flooring is graded and packaged for shipment to mill customers. Two wood-fired boilers provide heat and steam to the plant.

Attachment F provides a more detailed process flow diagram specific to the equipment affected by the proposed process changes.

1.2 Application Contacts

The contact persons for questions regarding any information in this permit application are:

Jeff Arbogast, Safety Manager for the Beverly Plant: 304-338-7729, jarbogast@Armstrong.com,

Dennis J. Ruth, EHS Manager for the Beverly Plant: 304-338-7619, djruth@Armstrong.com, and

Sandra P. Alvarado, Senior Engineer for EPS: 678-336-8542, salvarado@envplanning.com.

2 EMISSIONS & REGULATORY IMPACTS

For the purposes of this application, the pollutants of concern were PM, PM₁₀, and VOC. The proposed project does not include any physical modification to the cyclones and baghouses which control PM emissions from the Flooring Mill. Therefore, potential emissions of PM and PM₁₀ from the Flooring Mill will not change. A summary of the change in actual emissions is provided in Table 2.1:

Table 2.1 – Change in PM and PM₁₀ Emissions

Emission Point ID	Baghouse	Change in Actual PM Emissions (tons/yr)	Change in Actual PM₁₀ Emissions (tons/yr)
S04	No. 2 Baghouse	-0.07	-0.01
S07	No. 5 Baghouse	0.46	0.09

An increase in material consumption and utilization of the stain ovens and PUMA oven are projected as a result of the new products, thereby increasing actual VOC emissions from the Visually Distressed Flooring Lines, specifically from PUMA Line #1 operations. However, the Visually Distressed Flooring Lines are limited to 5.1 tons per year of VOC emissions as established in Condition 5.1.7 of the permit. No changes are being requested to this limit.

Table 2.2 – Change in VOC Emissions

Emission Source	Change in Actual VOC Emissions (tons/yr)	Emissions Limit (tons/yr)
PUMA Line #1 (003-02)	2.92E-2	-
Ovens	1.96E-06	-
Total VOC Emissions Increase	0.03	5.1

Since the proposed changes do not include modifications to the control equipment for the Flooring Mill or result in a change to the potential emission from the Flooring Mill or Visually Distressed Flooring Lines, no state or federal regulations will be triggered by the proposed changes and no new standards will apply. Detailed emissions calculations for the proposed changes are provided in Attachment N.

3 REQUESTED PERMIT CHANGES

During the preparation of the application, it was determined that the maximum emission rates listed in Condition 5.1.1 for No. 5 Baghouse were incorrectly calculated using the maximum air flow demand from the equipment exhausting to the baghouse instead of the maximum design capacity of the baghouse. In order to correct this finding, the following revisions are being proposed:

- In Table 1.1, revise the design capacity of the No. 5 Baghouse based on the correct air flow capacity.
- In Table 5.1.1, revise the maximum emission rates for PM and PM₁₀ emissions from No. 5 Baghouse based on the correction to the design air flow capacity of the baghouse.

Attachment N provides the current actual air flow, the future planned actual air flow, and the design capacity of the two affected baghouses and the corresponding PM emissions at each setting. Armstrong believes that Table 5.1.1 should reflect the true Maximum Emission Rates as provided in Table 3.1 below. Note that corrections apply only for No. 5 Baghouse.

Table 3.1 – Proposed Maximum Emission Rates

Emission Unit	Emission Point ID No.	Maximum Emission Rates			
		PM		PM ₁₀	
		lb/hour	TPY	lb/hour	TPY
No. 5 Baghouse	S07	2.22	9.72	0.44	1.94

Additionally, the basis for the flooring mill hourly design capacity, as listed in Table 1.1 of the permit, was reviewed and determined to be an inaccurate. This rate was based on an average hourly throughput rate calculated from the maximum annual board feet of kiln-dried lumber processed in the flooring mill. However, the mill produces a range of materials of varying width. Therefore, the hourly production rate in square feet varies significantly based on the dimensions of the product. Accordingly, the capacity of the flooring mill is being revised to 350,000 square feet per day. This rate is based on the annual production capacity, as provided in the most recent Title V renewal application, of 109,200,000 square feet of unfinished hardwood flooring per year. Note that no changes to the capacity of the mill are being proposed. This revision is intended only to correct the stated average hourly throughput rate to reflect the true mill capacity.

Lastly, the expansion of the PUMA operations conveying system from one line to two will result in an increase to the maximum hourly throughput capacity of the Visually Distressed Flooring Lines to 3,620 ft²/hr as listed in Table 1.1 of the permit.

A markup of the Rule 13 permit is enclosed as Appendix A with the proposed changes to the permit.

APPENDIX A
RULE 13 PERMIT MARKUP (R13-1147Q)

*West Virginia Department of Environmental Protection
Division of Air Quality*

*Earl Ray Tomblin
Governor*

*Randy C. Huffman
Cabinet Secretary*

Permit to Operate



*Pursuant to
Title V
of the Clean Air Act*

Issued to:

**Armstrong Hardwood Flooring Company
Beverly Mill
R30-08300025-2013**

*John A. Benedict
Director*

*Issued: January 22, 2013 • Effective: February 5, 2013
Expiration: January 22, 2018 • Renewal Application Due: July 22, 2017*

Permit Number: **R30-08300025-2013**
Permittee: **Armstrong Hardwood Flooring Company**
Facility Name: **Beverly Mill**
Mailing Address: **P.O. Box 160, Beverly, WV 26253**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 C Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Beverly, Randolph County, West Virginia
Facility Mailing Address:	P.O. Box 160, Beverly, WV 26253
Telephone Number:	304-338-4100
Type of Business Entity:	Corporation
Facility Description:	Hardwood flooring manufacturing
SIC Codes:	2426
UTM Coordinates:	597.41 km Easting \$ 4296.88 km Northing \$ Zone 17

Permit Writer: Beena Modi

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

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

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
002-01N	S25.01	No. 1 Finish Line – Topcoat Rollcoater 2	1993	6.0 gal/hr	N/A
002-01O	S26.01	No. 1 Finish Line – Topcoat Rollcoater 3	1993	6.0 gal/hr	N/A
002-01P	S27.01	UV Lights, Exhaust A	1993	750-1000 MJ	N/A
002-01Q	S28.01	UV Lights, Exhaust B	1993	750-1000 MJ	N/A
002-02	S03	No. 2 Finish Line	1993	8,500 ft ² /hr	Baghouse No. 1 (003)
002-02A	S12.02	No. 2 Finish Line – Stain Rollcoaters (2) applying stain and/or water)	1993	10.11 gal/hr (stain)	N/A
002-02B	S13.02	Vacuum Stain Table	1993	N/A	N/A
002-02C	S14.02	No. 2 Finish Line – Stain Oven	1993	1.6 MMBTU/hr	N/A
002-02D	S15.02	UV Lights	1993	300 Watts	N/A
002-02E	S16.02	No. 2 Finish Line – Sealer #1	1993	6.0 gal/hr	N/A
002-02F	S17.02	UV Lights, Exhaust A	1993	175-275 MJ	N/A
002-02G	S18.02	UV Lights, Exhaust B	1993	175-275 MJ	N/A
002-02H	S19.02	No. 2 Finish Line – Sealer #2	1993	6.0 gal/hr	N/A
002-02I	S20.02	UV Lights, Exhaust A	1993	450-650 MJ	N/A
002-02J	S21.02	UV Lights, Exhaust B	1993	450-650 MJ	N/A
002-02J.1	S15.02.1	No. 2 Finish Line –DE-Nibbers (3 Head)	1993	NA	Baghouse No. 1 (003)
002-02J.2	S21.02.1	No. 2 Finish Line – DE-Nibbers (3 Head)	1993	NA	Baghouse No. 1 (003)
002-02K	S22.02	No. 2 Finish Line – Topcoat Rollcoater 1	1993	6.0 gal/hr	N/A
002-02L	S23.02	UV Lights, Exhaust A	1993	175-275 MJ	N/A
002-02M	S24.02	UV Lights, Exhaust B	1993	175-275 MJ	N/A
002-02N	S25.02	No. 2 Finish Line – Topcoat Rollcoater 2	1993	6.0 gal/hr	N/A
002-02O	S26.02	No. 2 Finish Line – Topcoat Rollcoater 3	1993	6.0 gal/hr	N/A
002-02P	S27.02	UV Lights, Exhaust A	1993	750-1000 MJ	N/A
002-02Q	S28.02	UV Lights, Exhaust B	1993	750-1000 MJ	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
002-03A	NA	Wood Branding Device, Hood, Filtering System, and Sundry Equipment	2009	60 ft ² /hr (est. avg.)	Filtering System
002-04A	S12.04 connected to S03	Soft Scrape Cell	2010	5,000 ft ² /shift	Baghouse No. 1 (003)
003-01	S04 – S11	Flooring Mill	1990	29,500 ft² per 8 hr shift 350,000 ft ² /day (Output)	Baghouses (004-007, 009-011)
003-01	F02	Flooring Mill – Truck Loadout No. 1 (including dust bins)	1991	528 Tons/day	N/A
003-01	F03	Flooring Mill – Truck Loadout No. 2 (including dust bins)	2005	528 Tons/day	N/A
003-01	F04	Flooring Mill – Silo I	1990	195 Tons	N/A
003-01	F05	Flooring Mill – Silo II	1990	195 Tons	N/A
003-01	F06	Flooring Mill – Silo III	1990	195 Tons	N/A
003-02	S07	Visually Distressed Flooring Line(planer, de-nibber, sander, scuffer)	2012	1,375 3,620 ft ² /hr	007
003-02A	S29	Vacuum Vacuum Table	2012	1,375 3,620 ft ² /hr	N/A
003-02B	S30	Stain Coater	2012	1,375 3,620 ft ² /hr	N/A
003-02C	S31	Stain Wipe	2012	1,375 3,620 ft ² /hr	N/A
003-02D	S32	Oven	2012	1,375 3,620 ft ² /hr	N/A
003-03	S07	Visually Distressed Flooring Line (planer, sander, brushing, rework)	2014	1,375 3,620 ft ² /hr	007

Control Devices

Control Device ID	Emission Point ID	Control Device Description	Year Installed	Design Capacity
008	S08	Dry Electrostatic Precipitator – Services No. 1 & No. 2 Boilers	2003	9.6 KW
003	S03	No. 1 Baghouse (Services No. 1 and No. 2 Finish Line Sanders)	1993	79,556 ACFM
004	S04	No. 2 Baghouse (Services No. 2 & No.5 Flooring Mill Lines & Flooring Mill Rough End)	1990	50,373 ACFM
005	S05	No. 3 Baghouse (Services No. 5 & No. 6 Flooring Mill Lines)	1990	52,227 ACFM
006	S06	No. 4 Baghouse (Services No. 3 Wood Hog (No. 3 Cyclone))	1990	27,489 ACFM
007	S07	No. 5 Baghouse (Services No. 2 Wood Hog (No. 4 Cyclone) & No. 3 Flooring Mill Line & Visually Distressed Flooring Line)	2003	44,628 46,606 ACFM
009	S09	No. 6 Baghouse (Services No. 4 Wood Hog (No. 1 Cyclone) & No. 1 Wood Hog (No. 5 Cyclone)) & Main Relay Line (No. 6 Cyclone)	2005	59,748 ACFM
010	S10	No. 7 Baghouse (Services No. 1 Flooring Mill Line, Rough End & No. 1 Wood Hog (No. 7 Cyclone))	2005	52,990 ACFM
011	S11	No. 8 Baghouse (Services Flooring Mill Rough End)	2005	68,597 ACFM
012	S09	No. 1 Cyclone (From No. 4 Wood Hog to Silo II)	1990	24,100 ACFM
018	S05	No. 2 Cyclone (Boilers/ESP to Silo III)	1990	27,489 ACFM
013	S06	No. 3 Cyclone (From No. 3 Wood Hog to Silo III)	2004	6,500 ACFM
014	S07	No. 4 Cyclone (From No. 2 Wood Hog to No. 1 Cyclone)	2005	16,157 ACFM
016	S09	No. 5 Cyclone (From No. 7 Cyclone (No. 1 Wood Hog) to Silo I)	2005	4,768 ACFM
017	S09	No. 6 Cyclone (From No. 1, 2, 3, 4, & 5 Baghouses to No. 6 Baghouse)	2005	27,490 ACFM
015	S10	No. 7 Cyclone (From No. 1 Wood Hog, Exhaust to No. 7 Baghouse)	2005	24,100 ACFM

1.1. Active R13, R14, and R19 Permits

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

Permit Number	Date of Issuance
R13- 1147Q -1147R	May 8, 2015

2.0 General Conditions

2.1 Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2 Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source Performance Standards
CBI	Confidential Business Information	PM	Particulate Matter
CEM	Continuous Emission Monitor	PM₁₀	Particulate Matter less than 10µm in diameter
CES	Certified Emission Statement	pph	Pounds per Hour
C.F.R. or CFR	Code of Federal Regulations	ppm	Parts per Million
CO	Carbon Monoxide	PSD	Prevention of Significant Deterioration
C.S.R. or CSR	Codes of State Rules	psi	Pounds per Square Inch
DAQ	Division of Air Quality	SIC	Standard Industrial Classification
DEP	Department of Environmental Protection	SIP	State Implementation Plan
FOIA	Freedom of Information Act	SO₂	Sulfur Dioxide
HAP	Hazardous Air Pollutant	TAP	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	TPY	Tons per Year
HP	Horsepower	TRS	Total Reduced Sulfur
lbs/hr or lb/hr	Pounds per Hour	TSP	Total Suspended Particulate
LDAR	Leak Detection and Repair	USEPA	United States Environmental Protection Agency
m	Thousand	UTM	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	VEE	Visual Emissions Evaluation
mm	Million	VOC	Volatile Organic Compounds
mmBtu/hr	Million British Thermal Units per Hour		
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR § 30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
- b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
- c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1 Limitations and Standards

- 3.1.1. The facility-wide annual emission rate of hazardous air pollutants (HAPs) shall not exceed 9.4 tons per year of any single HAP, or 24.4 tons per year of aggregated HAPs. Facility-wide HAP emissions include, but are

not limited to the potential to emit for the boilers (emission point S08), in addition to all other activities in the plant that involve the use of HAP-containing materials (i.e., finishing lines, clean-up activities, etc.). The annual emission limits shall be based on a 12-month rolling yearly total.

[45CSR13, R13-1147 (Condition 3.1.7)]

- 3.1.2. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.3. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.4. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.5. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]
- 3.1.7. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.8. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

- 3.1.9. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.10. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

[45CSR§7-5.2.; 45CSR13, R13-1147 (Condition 3.1.9)]

- 3.1.11. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13; R13-1147 (Conditions 3.1.8. and 4.1.10)]

3.2. Monitoring Requirements

- 3.2.1. [Reserved]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language.
 2. The result of the test for each permit or rule condition.
 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13, R13-1147 (Condition 3.3.1.)]

3.4. Recordkeeping Requirements

- 3.4.1. For the purpose of demonstrating compliance with 3.1.1., refer to recordkeeping requirements per condition 6.4.2.
[45CSR13, R13-1147 (Condition 3.4.3)]
- 3.4.2. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.
[45CSR§30-5.1.c.2.A; 45CSR13, R13-1147(Conditions 3.4.4 and 4.4.1)]

3.4.3. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

[45CSR§30-5.1.c.2.B.; 45CSR13, R13-1147 (Condition 3.4.1)]

3.4.4. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.4.5. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13; R13-1147 (Conditions 3.4.5. and 4.4.2)]

3.4.6. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13; R13-1147 (Conditions 3.4.6. and 4.4.3)]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. and 5.1.c.3.D.]
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance
Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting

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period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.5.10. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 CFR Part 60, Appendix A Method 9 or 45CSR§7A must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR§30-5.1.c.3.]

3.6. Compliance Plan

None

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
- a. 40 CFR 60 Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. The two (2) wood-fired boilers located at Armstrong Hardwood Flooring Company's Beverly Mill are not subject to these requirements because the boilers had been purchased prior to the date the rule was proposed.
 - b. 40 CFR 63 Subpart QQQQ – *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products*. The facility has demonstrated that by the compliance date of May 15, 2006, they were a minor source of HAPs. With the establishment of HAP emission limits below major source thresholds, the facility shall not be subject to Subpart QQQQ.

4.0. Source-Specific Requirements [Boilers 001-01, 001-02 & 001-03]

4.1. Limitations and Standards

4.1.1. Combined emissions from the two (2) 48.8 MMBtu/hr boilers (001-01, 001-02) shall be vented to and controlled by an electrostatic precipitator (008), prior to release to the atmosphere. Due to unavoidable malfunction or maintenance of the electrostatic precipitator, only one (1) boiler may be operated. The permittee shall keep records of all electrostatic precipitator shutdowns, and note which boiler is operated during this time period.

[45CSR13, Permit No. R13-1147 (Condition 4.1.1.)]

4.1.2. Maximum emissions to the atmosphere from the electrostatic precipitator (emission point ID: S08) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions⁽¹⁾ (lb/hr)	Maximum Annual Emissions (ton/year)⁽¹⁾
Nitrogen Oxides	24.20	106.00
Carbon Monoxide	51.56	225.85
Particulate Matter ⁽²⁾	16.34	71.60
Sulfur Dioxide ⁽³⁾	64.58	95.01
Volatile Organic Compounds	9.02	39.52
Hazardous Air Pollutants		
Acrolein	0.40	1.75
Benzene	0.41	1.80
Formaldehyde	0.43	1.88
Hydrogen Chloride (HCL)	1.86	8.15
Total Aggregated HAPs ⁽⁴⁾	3.76	16.46

(1) Maximum hourly and annual emissions limitations represent aggregated emissions from both boilers (001-01 & 001-02)

(2) The hourly particulate emission limit reflects the maximum allowable under 45CSR§2-4.1.c. for boilers 001-01 and 001-02.

(3) The hourly SO₂ emission limit is more stringent than the maximum allowable under 45CSR§10-3.3.f. (312.32 lb/hr). Compliance with this streamlined limit assures compliance with 45CSR§10-3.3.f.

(4) Total aggregated HAPs for the boilers include non-speciated HAPs listed in the application.

[45CSR13, Permit No. R13-1147 (Condition 4.1.2.)]

- 4.1.3. Maximum emissions to the atmosphere from the 96.7 MMBTU/hr propane gas fired boiler (emission point ID: S30) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year) ⁽¹⁾
Nitrogen Oxides	20.12	4.02
Carbon Monoxide	3.39	0.68
Particulate Matter ⁽²⁾	0.64	0.13
Volatile Organic Compounds	0.53	0.11

(1)Maximum annual emissions limitations represent emissions associated with 400 hours of operation of the boiler.

(2)The hourly particulate matter emission limit is more stringent than the maximum allowable under 45CSR§2-4.1.b. (8.70 lb/hr). Compliance with this streamlined limit assures compliance with 45CSR§2-4.1.b.

[45CSR13, Permit No. R13-1147 (Condition 4.1.3.)]

- 4.1.4. The operation of the 96.7 MMBTU/hr propane gas fired boiler shall be limited to 400 hours of operation per year.

[45CSR13, Permit No. R13-1147 (Condition 4.1.4.)]

- 4.1.5. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

[45CSR§2-3.1.; 45CSR13, Permit No. R13-1147 (Condition 4.1.5.)]

- 4.1.6. Compliance with the visible emission requirements of section 4.1.5. shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director.

[45CSR§2-3.2.; 45CSR13, Permit No. R13-1147 (Condition 4.1.6.)]

- 4.1.7. If the owner or operator of a fuel burning unit can demonstrate to the satisfaction of the Director that compliance with section 4.1.5. cannot practically be achieved with respect to soot blowing operations or during the cleaning of a fire box, the Director may formally approve an alternative visible emission standard applicable to the fuel burning unit for soot blowing periods; provided that the exception period shall not exceed a total of six (6) six minute time periods in a calendar day with visible emissions limited to thirty percent (30%) opacity, as determined in accordance with 40 CFR Part 60, Appendix A, Method 9, or by using measurements from a certified continuous opacity monitoring system.

[45CSR§2-3.3.]

- 4.1.8. No person shall cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:

- a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;
- b. Transport of ash in vehicles or on conveying systems, to include spillage, tracking or blowing of particulate matter from or by such vehicles or equipment; and
- c. Ash or fuel handling systems and ash disposal areas.

[45CSR§2-5.1.; 45CSR13, Permit No. R13-1147 (Condition 4.1.7.)]

4.1.9. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§2-9.2.; 45CSR13, Permit No. R13-1147 (Condition 4.1.8.)]

4.1.10. Unless otherwise approved by the Director, the maximum allowable emission rate for an individual stack shall not exceed by more than twenty-five percent (25%) the emission rate determined by prorating the total allowable emission rate specified in subsections 3.1, 3.2, or 3.3 of 45CSR10, on the basis of individual unit heat input at design capacity for all fuel burning units discharging through that stack.
[45CSR§10-3.4.a.; 45CSR13, Permit No. R13-1147 (Condition 4.1.9.)]

4.1.11 **§ 63.11201 What standards must I meet?**

(b) You must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008 that meets the requirements in Table 2 to this subpart satisfies the energy assessment portion of this requirement.

(d) These standards apply at all times.

Table 2 to Subpart JJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

As stated in § 63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

If your boiler is in this subcategory. . .	You must meet the following. . .
3. Existing or new biomass or oil	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
4. Existing coal, biomass, or oil (units with heat input capacity of 10 million Btu per hour and greater)	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. The energy assessment must include: (1) A visual inspection of the boiler system, (2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints, (3) Inventory of major systems consuming energy from affected boiler(s), (4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage, (5) A list of major energy conservation measures, (6) A list of the energy savings potential of the energy conservation measures identified, (7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40CFR § 63.11201(b) (d), Table 2] (001-01, 001-02)

4.1.12. § 63.11223 How do I demonstrate continuous compliance with the work practice and management practice standards?

(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a biennial performance tune-up according to paragraphs (b) of this section and keep records as required in § 63.11225(c) to demonstrate continuous compliance. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.

(b) You must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section.

(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months).

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.

(4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.

(5) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

(6) Maintain onsite and submit, if requested by the Administrator, biennial report containing the information in paragraphs (b)(6)(i) through (iii) of this section.

(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler.

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(iii) The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler.

(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.

[40CFR § 63.11223(a) (b)] (001-01, 001-02)

4.2. Monitoring Requirements

- 4.2.1. For the purpose of determining compliance with the opacity limit of 4.1.5., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for the wood fired boilers (001-01, 001-02). The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

These checks shall be performed at the stack (emission point S08) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

Visible emission checks shall be conducted on a weekly basis. If visible emissions are present, the permittee shall conduct an opacity reading using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the visible emission check. In accordance with Method 9, each observation shall be a minimum of six (6) minutes, unless any one 15 second reading is greater than the opacity limit, in which case the observation period shall be extended to a minimum of 60 minutes or until a violation of the emissions standard has been documented; whichever is a shorter period. An excursion is defined as a six minute block average of 15 second readings greater than 10 percent opacity.

[45CSR13, Permit No. R13-1147 (Condition 4.2.1.); 40CFR§64.6(c); 45CSR§30-5.1.c.]

- 4.2.2. For the purpose of determining compliance with the soot blowing variance specified in 4.1.7., the permittee shall conduct visible emissions readings during soot blowing operations. 40CFR Part 60, Appendix A, Method 9 shall be used to determine opacity readings. In accordance with Method 9, each observation shall be a minimum of six (6) minutes, unless any one 15 second reading is greater than the opacity limit, in which case the observation period shall be extended to a minimum of 60 minutes or until a violation of the emissions standard has been documented; whichever is a shorter period. Such readings shall be conducted for the entire duration of soot blowing operations.

The frequency for performing visible emission readings shall be on a monthly basis, or during one soot blowing episode per month per boiler (001-01 & 001-02). Visible emission readings shall be performed during periods of facility operation and appropriate weather conditions.

[45CSR§30-5.1.c.]

- 4.2.3. For Boiler No. 1 (001-01) and Boiler No. 2 (001-02), the permittee shall maintain and operate the electrostatic precipitator (ESP) in accordance with the manufacturer's specifications and with good air pollution control practices. This shall include monitoring of the secondary voltage and amperage for performance, which shall be monitored by electronic display. Operational status of the precipitator should be recorded and evaluated once per shift to verify normal operation. It should be calibrated upon installation. The following parameters and corresponding minimum values have been determined to reflect normal operating conditions:
- a. Minimum secondary voltage of 20kV, with the actual value recorded once per shift;
 - b. Minimum secondary amperage of 20 milliamps, with the actual value recorded once per shift
- An excursion is defined as a reading of secondary kilovolts less than 20 kV, or secondary milliamps of less than 20 milliamps.

- [45CSR13, Permit No. R13-1147 (Condition 4.2.2.); 40CFR§64.6(c); 45CSR 30-5.1.c]**
- 4.2.4 Loss of signal or out-of-control periods of instrumentation used to measure secondary kilovolts and secondary amperage will result in replacement of the transmitter in-kind. Instrument installation and subsequent repairs shall be performed by appropriate plant or third party personnel. Records of the performance of these repairs shall be maintained for a minimum of five (5) years.

The facility's corrective action program for a malfunctioning control device performance indicator is to replace the defective component or if necessary the instrument in-kind upon detection of signal failure. Appropriate spare parts will be maintained on site.

Continued Operation – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Response to Excursions or Exceedances

- a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

Documentation of Need for Improved Monitoring – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

Quality Improvement Plan (QIP) – Based on the results of a determination made under 40 CFR §64.7(d)(2), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e).

[40CFR§§64.7(b), (c), (d), (e), 40CFR§64.8, 45CSR§30-5.1.c.]

4.3. Testing Requirements

- 4.3.1. At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit may be required to conduct or have conducted tests to determine compliance.
[45CSR§2-8.1.b.; 45CSR13, Permit No. R13-1147 (Condition 4.3.1)]
- 4.3.2. The Director, or his duly authorized representative, may conduct such other tests as he may deem necessary to evaluate air pollution emissions other than those noted in subsection 4.1. of 45CSR2.
[45CSR§2-8.1.c.; 45CSR13, Permit No. R13-1147 (Condition 4.3.2)]

4.4. Recordkeeping Requirements

- 4.4.1. The permittee shall maintain records of all monitoring data required by 4.2.1. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. If the emission unit is out of service during the normal weekly evaluation, the record of observation may note “out of service” (O/S) or equivalent.
[45CSR§30-5.1.c.; 45CSR13, Permit No. R13-1147 (Condition 4.4.4), 40CFR§64.9(b)]
- 4.4.2. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each of the two wood-fired fuel burning units (001-01 & 001-02). Such records shall include, but not be limited to, the date and time of start-up and shutdown, the quantity of fuel consumed on a daily basis and a quarterly ash and BTU analysis. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electric form.
[45CSR§§2-8.3.c., 8.3.d.; 45CSR§2A-7.1.a.3.; 45CSR13, Permit No. R13-1147 (Condition 4.4.5)]
- 4.4.3. The owner or operator shall maintain records of the operating schedule and the quantity and quality of fuel consumed in the propane gas-fired fuel burning units (001-03). Such records shall include, but not be limited to, the date and time of start-up and shutdown, and the quantity of fuel consumed on a monthly basis. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electric form.
[45CSR§§2-8.3.c., 8.3.d.; 45CSR§2A-7.1.a.1.; 45CSR13, Permit No. R13-1147 (Condition 4.4.6)]
- 4.4.4. Records of all required monitoring data and support information shall be maintained on-site for a period of at least five (5) years from the date of monitoring, sampling, measurement or reporting. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports.
[45CSR§2A-7.1.b.]
- 4.4.5. The permittee shall maintain records of monitoring data, monitoring system performance data, corrective actions taken, written Quality Improvement Plans (QIPs), any activities undertaken to implement a QIP, and other supporting information required to be maintained by 40 CFR Part 64, such as records of monitoring system maintenance or corrective actions.
[40CFR§64.9(b), 45CSR§30-5.1.c.]

4.4.6 § 63.11225 What are my notification, reporting, and recordkeeping requirements?

(c) You must maintain the records specified in paragraphs (c)(1) through (5) of this section.

(1) As required in § 63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by § 63.11214 as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(ii) Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a non-waste determination by you or EPA, and the total fuel usage amount with units of measure. If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1), you must keep a record which documents how the secondary material meets each of the legitimacy criteria. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in § 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process.

[40 C.F.R. 63 Subpart JJJJJ 63.11225(c) (1) (2) (i) (ii)] (001-01, 001-02)

4.4.7 In order to determine compliance with the SO₂ emissions limits in condition 4.1.2 of this permit, the permittee shall conduct monthly wood sampling and analysis for sulfur content. The permittee will use the average monthly wood sulfur content values to calculate monthly and 12 month rolling total SO₂ emission rates. **[45CSR13, Permit No. R13-1147 (Condition 4.4.7.)]**

4.5. Reporting Requirements

4.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned. **[45CSR13, Permit No. R13-1147 (Condition 4.5.1.)]**

4.5.2. The owner or operator of a fuel burning unit(s) subject to 45CSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in section 3 and 4) as provided in one of the subdivisions in 9.3.a. or 9.3.b. of 45CSR2.

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless

otherwise required by the Director:

1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
 2. Excess opacity does not exceed 40%.
- b. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in subdivision 9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
1. A detailed explanation of the factors involved or causes of the malfunction;
 2. The date and time of duration (with starting and ending times) of the period of excess emissions;
 3. An estimate of the mass of excess emissions discharged during the malfunction period;
 4. The maximum opacity measured or observed during the malfunction;
 5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
 6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9.3.]

4.5.3 General reporting requirements for 40 C.F.R. Part 64 (CAM)

(a) On and after the date specified in § 64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with § 70.6(a)(3)(iii) of this chapter.

(b) A report for monitoring under this part shall include, at a minimum, the information required under § 70.6(a)(3)(iii) of this chapter and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in § 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR § 64.9(a); 45CSR§30-5.1.c]

4.5.4 **§ 63.11214 How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?**

(b) If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to § 63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

(c) If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed and submit, upon request, the energy assessment report.

[40 C.F.R. 63 Subpart JJJJJ 63.11214 (b) (c)] (001-01, 001-02)

4.5.5. **§ 63.11225 What are my notification, reporting, and recordkeeping requirements?**

(a) You must submit the notifications specified in paragraphs (a)(1) through (a)(5) of this section to the delegated authority.

(1) You must submit all of the notifications in §§ 63.7(b); 63.8(e) and (f); 63.9(b) through (e); and 63.9(g) and (h) that apply to you by the dates specified in those sections.

(2) As specified in § 63.9(b)(2), you must submit the Initial Notification no later than 120 calendar days after May 20, 2011 or within 120 days after the source becomes subject to the standard.

(4) You must submit the Notification of Compliance Status in accordance with § 63.9(h) no later than 120 days after the applicable compliance date specified in § 63.11196 unless you must conduct a performance stack test. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. In addition to the information required in § 63.9(h)(2), your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) “This facility complies with the requirements in § 63.11214 to conduct an initial tune-up of the boiler.”

(ii) “This facility has had an energy assessment performed according to § 63.11214(c).”

(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to a requirement to conduct a biennial tune-up according to § 63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial compliance report as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of

whether the source has complied with all the relevant standards and other requirements of this subpart.

(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

(4) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under § 241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of § 241.3, and the total fuel usage amount with units of measure.

(f) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(g) If you intend to switch fuels, and this fuel switch may result in the applicability of a different subcategory or a switch out of subpart **JJJJJ** due to a switch to 100 percent natural gas, you must provide 30 days prior notice of the date upon which you will switch fuels. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date on which you became subject to the currently applicable standards.

(4) The date upon which you will commence the fuel switch.

[40 C.F.R. 63 Subpart JJJJJ §§63.11225(a) (1) (2) (4) (i) (ii), (b), (f), (g)] (001-01, 001-02)

4.6. Compliance Plan

4.6.1. None

5.0 Source-Specific Requirements [Flooring Mill (003-01), Visually Distressed Flooring Lines (003- 02) & (003-03)]

5.1. Limitations and Standards

5.1.1. Particulate matter emissions from each of the stacks venting from the baghouses shall be limited as follows:

Emission Unit	Emission Point ID No.	Maximum Emission Rates			
		PM ⁽¹⁾		PM ₁₀ ⁽²⁾	
		lb/hour	TPY	lb/hour	TPY
No. 2 Baghouse (004)	S04	2.16	9.46	0.43	1.89
No. 3 Baghouse (005)	S05	2.24	9.80	0.45	1.96
No. 4 Baghouse (006)	S06	1.18	5.16	0.24	1.03
No. 5 Baghouse (007)	S07	1.91 <u>2.00</u>	8.38 <u>8.75</u>	0.38 <u>0.40</u>	1.68 <u>1.75</u>
No. 6 Baghouse (009)	S09	2.56	11.22	0.51	2.24
No. 7 Baghouse (010)	S10	2.27	9.95	0.45	1.99
No. 8 Baghouse (011)	S11	2.94	12.88	0.59	2.58

1. Compliance with these particulate limits assures compliance with 45CSR§7-4.1.

2. Based on the assumption that PM₁₀ is 20% of the PM emitted.

[45CSR13, Permit No. R13-1147 (Condition 5.1.1.)]

5.1.2. All cyclone systems (control device IDs: 012 – 017) shall be maintained and operated in accordance with manufacturer’s performance specifications.

[45CSR13, Permit No. R13-1147 (Condition 5.1.2.)]

5.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7 of 45CSR7.

[45CSR§7-3.1.; 45CSR13, Permit No. R13-1147 (Condition 5.1.3.)]

5.1.4. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 of 45CSR7 is required to have a full enclosure and be equipped with a particulate matter control device.

[45CSR§7-3.7.; 45CSR13, Permit No. R13-1147 (Condition 5.1.4.)]

- 5.1.5. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1; 45CSR13, Permit No. R13-1147 (Condition 5.1.5.)]**
- 5.1.6. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. **[45CSR§7-9.1.]**
- 5.1.7. Combined VOC emissions from the Visually Distressed Flooring Lines (003-02 & 003-03) shall not exceed 1.9 lb/hr nor 5.1 tons per year. **[45CSR13, Permit No. R13-1147 (Condition 5.1.6.)]**
- 5.1.8. Only stains with 0% vHAP content shall be used in the Visually Distressed Flooring Lines. **[45CSR13, Permit No. R13-1147 (Condition 5.1.7.)]**

5.2. Monitoring Requirements

- 5.2.1. For the purpose of determining compliance with the opacity limit of 5.1.3., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for the Baghouses (source ID's: 004, 005, 006, 007, 009, 010, 011). The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted on a weekly basis. These checks shall be performed at the stack (emission points S3, S4, S5, S6, S7, S9, S10, S11) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are present, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A as soon as practicable, but within seventy-two (72) hours of the visual emission check.

An excursion is defined as a six minute block average of 15-second readings of greater than 20 percent opacity.

[45CSR13; Permit No. R13-1147 (Condition 5.2.1.), 40CFR§64.6(c), 45CSR§30-5.1.c.]

- 5.2.2. The permittee shall operate and maintain each baghouse and exhaust system in accordance with manufacturer's specifications to ensure proper operation and 99.9% control efficiency. This shall include

the prompt replacement of broken bags, proper fan operation, prompt replacement of fans and duct work, and daily inspections. Said inspections shall include conducting pressure drop measurements for each baghouse. The following pressure drop ranges have been determined to reflect normal operating conditions:

Control Device ID No.	Baghouse Specifications	
	Emission Unit	Pressure Drop ⁽¹⁾ (inches of H ₂ O)
004	No. 2 Baghouse	0.2 to 6.5
005	No. 3 Baghouse	0.2 to 6.5
006	No. 4 Baghouse	0.2 to 6.5
007	No. 5 Baghouse	0.2 to 6.5
009	No. 6 Baghouse	0.2 to 6.5
010	No. 7 Baghouse	0.2 to 6.5
011	No. 8 Baghouse	0.2 to 6.5

(1) The permittee may request changes to the specified pressure drop range(s), given appropriate documentation demonstrating that compliance with applicable requirements have been determined at that particular pressure drop reading.

An excursion is defined as any differential pressure drop reading over any baghouse below 0.2 inches of water column, or above 6.5 inches of water column.

[45CSR13, Permit No. R13-1147 (Condition 5.2.2.), 40CFR§64.6(c), 45CSR§30-5.1.c.]

5.2.3 The calibration gauges for each of the baghouses will be checked at least once per year to ensure accurate readings. Loss of signal or out-of-control periods will result in replacement of a gauge in-kind. Instrument installation and subsequent repairs will be performed by appropriate plant or third party personnel. Records of the performance of these repairs will be maintained for a period of at least five (5) years.

The facility's corrective action program for a malfunctioning control device performance indicator is to replace the defective component or if necessary the instrument in-kind upon detection of signal failure. In-kind replacement parts or instruments for the differential pressure gauges will be maintained on site.

Continued Operation – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Response to Excursions or Exceedances

a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

Documentation of Need for Improved Monitoring – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

Quality Improvement Plan (QIP) – Based on the results of a determination made under 40 CFR §64.7(d)(2), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e).

[40CFR§§64.7 (b), (c), (d), (e), 40CFR§64.8, 45CSR§30-5.1.c.]

- 5.2.4 In order to determine compliance with the emissions limits of condition 5.1.7 of this permit, the permittee shall maintain certifiable monthly records of the amount and VOC content of any stain used.
[45CSR13, Permit No. R13-1147 (Condition 5.2.3.)]

5.3. Testing Requirements

- 5.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1.; 45CSR13, Permit No. R13-1147 (Condition 5.3.1.)]
- 5.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2.; 45CSR13, Permit No. R13-1147 (Condition 5.3.2.)]

5.4. Recordkeeping Requirements

- 5.4.1. The permittee shall maintain records of all monitoring data required by 5.2.1. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. If the emission unit is out of service during the normal weekly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13, Permit No. R13-1147 (Condition 5.4.1.), 40CFR§64.9(b)]
- 5.4.2. The permittee shall maintain records of monitoring data involved with the proper operation and daily inspections of the baghouses as specified in section 5.2.2. including pressure drop readings.
[45CSR13, Permit No. R13-1147 (Condition 5.4.2.), 40CFR§64.9(b)]
- 5.4.3. The permittee shall record the daily differential pressure measurements manually in a logbook or electronic and retain all records for a minimum of five (5) years.
[40 CFR § 64.9(b); 45CSR§30-5.1.c]
- 5.4.4. **General recordkeeping requirements for 40CFR Part 64 (CAM)** (1) The owner or operator shall comply with the recordkeeping requirements specified in § 70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to § 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.
- [40 CFR § 64.9(b); 45CSR§30-5.1.c]**

5.5. Reporting Requirements

- 5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 45CSR7A must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, Permit No. R13-1147 (Condition 5.5.1.)]
- 5.5.2. **General reporting requirements for 40 C.F.R. Part 64 (CAM)**
- (a) On and after the date specified in § 64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with § 70.6(a)(3)(iii) of this chapter.

(b) A report for monitoring under this part shall include, at a minimum, the information required under § 70.6(a)(3)(iii) of this chapter and the following information, as applicable:

- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (iii) A description of the actions taken to implement a QIP during the reporting period as specified in § 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR § 64.9(a); 45CSR§30-5.1.c]

5.6. Compliance Plan

5.6.1. None

6.0. Source-Specific Requirements [Finish Lines (002-01 & 002-02)]

6.1. Limitations and Standards

6.1.1. Particulate matter emissions from the stack venting from Baghouse No. 1 shall be limited as follows:

Emission Unit	Emission Point ID No.	Maximum Emission Rates			
		PM ⁽¹⁾		PM ₁₀ ⁽²⁾	
		lb/hour	TPY	lb/hour	TPY
003 (No. 1 Baghouse)	S03	3.41	14.93	0.68	2.99

(1) Compliance with these particulate limits assures compliance with 45CSR§7-4.1.

(2) Based on the assumption that PM₁₀ is 20% of the PM limit.

[45CSR13, R13-1147 (Condition 6.1.1.)]

6.1.2. The hourly emission rate of VOCs from the two (2) finishing lines (Source ID #s 002-01, 002-02) including cleanup solvents shall not exceed 88.54 lb/hr.

[45CSR13, R13-1147 (Condition 6.1.2.)]

6.1.3. The annual emission rate of VOCs from the two (2) finishing lines (Source ID #s 002-01, 002-02) including cleanup solvents shall not exceed 204.5 TPY.

[45CSR13, R13-1147 (Condition 6.1.3.)]

6.1.4. In order to meet the facility-wide HAP limitations specified in 3.1.1., HAP emissions associated with the finishing lines (e.g., stain, sealer, fill coating, topcoat, cleaning solvents, etc.) shall be maintained at 5.64 tons per year of any single HAP and 7.94 tons per aggregated HAPs.

[45CSR13, R13-1147 (Condition 6.1.4.)]

6.1.5. The maximum processing rate to Finish Line #1 (Source ID# 002-01) and Finish Line #2 (Source ID# 002-02) shall not exceed 8,500 ft²/hr for each finishing line. Compliance with the Maximum Yearly processing rates shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of material processed at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-1147 (Condition 6.1.5.)]

6.1.6. The Soft Scrape Cell (Source ID# 002-04A) shall be connected to Finish Line #1 (Source ID#002-01) and shall only be operated when one of the denibbers (Source ID# 002-01D.1) on Finish Line #1 (Source ID#002-01) is not operating.

[45CSR13, R13-1147 (Condition 6.1.6.)]

6.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7 of 45CSR7.

[45CSR§7-3.1.; 45CSR13, R13-1147 (Condition 6.1.7.)]

- 6.1.8. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 of 45CSR7 is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7.; 45CSR13, R13-1147 (Condition 6.1.8.)]
- 6.1.9. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1.; 45CSR13, R13-1147 (Condition 6.1.9.)]

6.2. Monitoring Requirements

- 6.2.1. For the purpose of determining compliance with the opacity limit of 6.1.7, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for the Baghouse (003). The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted on a weekly basis. These checks shall be performed at the stack (emission points S03) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are present, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A as soon as practicable, but within seventy-two (72) hours of the visual emission check.

An excursion is defined as a six minute block average of 15-second readings of greater than 20 percent opacity. **[45CSR13, R13-1147 (Condition 6.2.1.), 40CFR§64.6(c), 45CSR§30-5.1.c.]**

- 6.2.2. The permittee shall operate and maintain the baghouse and exhaust system in accordance with manufacturer’s specifications to ensure proper operation and 99.9% control efficiency. This shall include the prompt replacement of broken bags, proper fan operation, prompt replacement of fans and duct work, and daily inspections. Said inspections shall include conducting pressure drop measurements for the baghouse. The following pressure drop range has been determined to reflect normal operating conditions:

Control Device ID No.	Baghouse Specifications	
	Emission Unit	Pressure Drop ⁽¹⁾ (inches of H ₂ O)
003	No. 1 Baghouse	0.2 to 6.5

(1) The permittee may request changes to the specified pressure drop range(s), given appropriate

documentation demonstrating that compliance with applicable requirements have been determined at that particular pressure drop reading.

An excursion is defined as any differential pressure drop reading over any baghouse below 0.2 inches of water column, or above 6.5 inches of water column.

[45CSR13, R13-1147 (Condition 6.2.2.), 40CFR§64.6(c), 45CSR§30-5.1.c.]

- 6.2.3. The permittee shall maintain monthly records of natural gas usage for the Stain Ovens (002-01C, 002-02C), as well as monthly records of production of finished wood flooring from the Finish Lines (002-01, 002-02). **[45CSR§30-5.1.c.]**
- 6.2.4. The calibration gauges for each of the baghouses will be checked at least once per year to ensure accurate readings. Loss of signal or out-of-control periods will result in replacement of a gauge in-kind. Instrument installation and subsequent repairs will be performed by appropriate plant or third party personnel. Records of the performance of these repairs will be maintained for a period of at least five (5) years.

The facility's corrective action program for a malfunctioning control device performance indicator is to replace the defective component or if necessary the instrument in-kind upon detection of signal failure. In-kind replacement parts or instruments for the differential pressure gauges will be maintained on site.

Continued Operation – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Response to Excursions or Exceedances

- a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

Documentation of Need for Improved Monitoring – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid

data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

Quality Improvement Plan (QIP) – Quality Improvement Plan (QIP) – Based on the results of a determination made under 40 CFR §64.7(d)(2), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e).

[40CFR§§64.7 (b), (c), (d), (e), 40CFR§64.8, 45CSR§30-5.1.c.]

- 6.2.5 In order to determine compliance with the emissions limits of conditions 6.1.2 and 6.1.3 of this permit, the permittee shall maintain certifiable monthly records of the amount and VOC content of any coating used during the two roller coating process.

[45CSR13, R13-1147 (Condition 6.2.3)]

6.3. Testing Requirements

- 6.3.1. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§7-8.1.; 45CSR13, R13-1147 (Condition 6.3.1.)]

- 6.3.2. The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.

[45CSR§7-8.2.; 45CSR13, R13-1147 (Condition 6.3.2.)]

6.4. Recordkeeping Requirements

- 6.4.1. For the purpose of determining compliance with conditions 6.1.2., and 6.1.3., the permittee shall maintain records of the following, on a monthly basis:
- a. Name and monthly usage of each material (e.g., stain, sealer, fill coating, topcoat, cleaning solvents, etc.) as applied on a monthly basis;
 - b. The VOC content of each material;
 - c. Hours of operation for each coating line;

Additionally, within thirty (30) days of the last day of each calendar month, the permittee shall prepare a summary report that contains the following information: average hourly, monthly and rolling 12-month mass emissions of VOCs from the application of materials and hours of operation of application of materials at the facility. Records shall be maintained on site for a period of not less than five (5) years and shall be made available to the Director or his or her duly authorized representative upon request.

[45CSR13, R13-1147 (Condition 6.4.1.)]

- 6.4.2. For the purpose of determining compliance with conditions 3.1.1., and 6.1.4. the permittee shall maintain records of the following, on a monthly basis:
- a. Name and monthly usage of each HAP-containing material (e.g., stain, sealer, topcoat, cleaning solvents, etc.) as applied on a monthly basis;
 - b. The speciated HAP content of each material (for HAP content ranges provided by the material manufacturer, the HAP content shall be the high-end of the range);
 - d. Hours of operation for each coating line;

Additionally, within thirty (30) days of the last day of each calendar month, the permittee shall prepare a summary report that contains the following information: average hourly, monthly and rolling 12-month mass emissions of aggregate and speciated HAPs from the application of materials and hours of operation of application of materials at the facility, as well as the potential HAP emissions from the boilers. Records shall be maintained on site for a period of not less than five (5) years and shall be made available to the Director or his or her duly authorized representative upon request.

[45CSR13, R13-1147 (Condition 6.4.2.)]

- 6.4.3. To demonstrate compliance with section 6.1.5, the permittee shall maintain records of the amount of material processed on Finish Line #1 (Source ID# 002-01) and Finish Line #2 (Source ID# 002-02) respectively. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

[45CSR13, R13-1147 (Condition 6.4.3.)]

- 6.4.4. The permittee shall maintain records of all monitoring data required by 6.2.1. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. If the emission unit is out of service during the normal weekly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

[45CSR13, R13-1147 (Condition 6.4.4.); 40CFR§64.9(b)]

- 6.4.5. The permittee shall maintain records of monitoring data involved with the proper operation and daily inspections of the baghouse as specified in section 6.2.2., including pressure drop readings.

[45CSR13, R13-1147 (Condition 6.4.5.); 40CFR§64.9(b)]

- 6.4.6. The permittee shall maintain copies of material safety data sheets, certified product data sheets, or manufacturer's formulations for each surface coating, fill coating, clean up solvent, and other related materials on site for a period of not less than five (5) years and shall be made available to the Director or his or her duly authorized representative upon request.

[45CSR13, R13-1147 (Condition 6.4.6.)]

6.4.7 The permittee shall record the daily differential pressure measurements manually in a logbook or electronic and retain all records for a minimum of five (5) years.
[40 CFR § 64.9(b); 45CSR§30-5.1.c]

6.4.8 **General recordkeeping requirements for 40CFR Part 64 (CAM)** (1) The owner or operator shall comply with the recordkeeping requirements specified in § 70.6(a)(3)(ii) of this chapter. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to § 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.
[40CFR§64.9(b); 45CSR§30-5.1.c]

6.5. Reporting Requirements

6.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 45CSR7A must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, Permit No. R13-1147 (Condition 6.5.1.)]

6.5.2 **General reporting requirements for 40 C.F.R. Part 64 (CAM)** (1) On and after the date specified in § 64.7(a) by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with § 70.6(a)(3)(iii) of this chapter.

(2) A report for monitoring under this part shall include, at a minimum, the information required under § 70.6(a)(3)(iii) of this chapter and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in § 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40CFR§64.9(a); 45CSR§30-5.1.c]

6.6. Compliance Plan

6.6.1. None

APPENDIX B
COMBINED PERMIT APPLICATION FORM



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): Armstrong Hardwood Flooring Company		2. Federal Employer ID No. (FEIN): 7 5 2 8 8 2 6 4 5	
3. Name of facility (if different from above): Beverly Plant		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: P.O. Box 160 Beverly , WV 26253		5B. Facility's present physical address: Route 250 South Beverly , WV 26253	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES, provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – If NO, provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – If YES, please explain: Owner and operator of the site. – If NO, you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Hardwood flooring manufacturing plant		10. North American Industry Classification System (NAICS) code for the facility: 321918	
11A. DAQ Plant ID No. (for existing facilities only): 0 8 3 – 0 0 0 2 5		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R30-08300025-2013 (AA02); R13-1147Q	

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction** or **Relocation permits**, please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

From Charleston, take Interstate 79 North to exit 99. Proceed east on US Route 33 to Elkins, West Virginia. Take US Route 250 South from Elkins to Beverly. The facility is located on the right of and adjacent to US Route 250, approximately 1.6 miles south of Beverly in Randolph County.

12.B. New site address (if applicable):	12C. Nearest city or town: Beverly	12D. County: Randolph
12.E. UTM Northing (KM): 4296.88	12F. UTM Easting (KM): 597.41	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:
 Repurposing of some existing process equipment and installation of several sanders and saws to allow for wire brushed visual products of varied widths. The changes will impact the inlet air flows to Baghouse Nos. 2 and 5 but no physical changes will take place that will impact the control efficiency or the potential emissions from these baghouses. Installation of a new hog, which will exhaust to Cyclone No. 4 and Baghouse No. 5, utilizing the same ductwork and air flows as an identical (Jacobsen) hog. This addition will not impact the design or capacities of either the cyclone or baghouse. Expansion of the PUMA conveying system from one line to two lines and use of a new white wash material for the new products will increase the maximum hourly throughput capacity and will increase utilization of the stain and PUMA ovens.

14A. Provide the date of anticipated installation or change: 12/15/2015 – If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / /	14B. Date of anticipated Start-Up if a permit is granted: 02/01/2016
--	---

14C. Provide a **Schedule** of the planned **Installation of/Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
 Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? **YES** **NO**

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (*if known*). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (*if known*). Provide this information as **Attachment D**.

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to **Plot Plan Guidance**) .
 – Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F**.

23. Provide a **Process Description** as **Attachment G**.
 – Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

- | | | |
|--|--|---|
| <input type="checkbox"/> Bulk Liquid Transfer Operations | <input type="checkbox"/> Haul Road Emissions | <input type="checkbox"/> Quarry |
| <input type="checkbox"/> Chemical Processes | <input type="checkbox"/> Hot Mix Asphalt Plant | <input checked="" type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities |
| <input type="checkbox"/> Concrete Batch Plant | <input type="checkbox"/> Incinerator | <input type="checkbox"/> Storage Tanks |
| <input type="checkbox"/> Grey Iron and Steel Foundry | <input type="checkbox"/> Indirect Heat Exchanger | |
| <input checked="" type="checkbox"/> General Emission Unit, specify Hardwood Flooring & Finishing Lines | | |

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

- | | | |
|---|---|--|
| <input type="checkbox"/> Absorption Systems | <input checked="" type="checkbox"/> Baghouse | <input type="checkbox"/> Flare |
| <input type="checkbox"/> Adsorption Systems | <input type="checkbox"/> Condenser | <input type="checkbox"/> Mechanical Collector |
| <input type="checkbox"/> Afterburner | <input type="checkbox"/> Electrostatic Precipitator | <input type="checkbox"/> Wet Collecting System |

Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES 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 found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

- | | |
|--|---|
| <input type="checkbox"/> Authority of Corporation or Other Business Entity | <input type="checkbox"/> Authority of Partnership |
| <input type="checkbox"/> Authority of Governmental Agency | <input type="checkbox"/> Authority of Limited Partnership |

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

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.

SIGNATURE _____

(Please use blue ink)

DATE: _____

10/1/15

(Please use blue ink)

35B. Printed name of signee: Steven Bullock

35C. Title: Plant Manager

35D. E-mail: SABullock@armstrong.com

36E. Phone: 304-338-7629

36F. FAX: 304-338-4124

36A. Printed name of contact person (if different from above): Jeff Arbogast

36B. Title: Safety Manager

36C. E-mail: JArbogast@armstrong.com

36D. Phone: 304-338-7729

36E. FAX: 304-338-4105

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input type="checkbox"/> Attachment B: Map(s) | <input type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input checked="" type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input checked="" type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A
CERTIFICATE OF BUSINESS REGISTRATION

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
ARMSTRONG HARDWOOD FLOORING COMPANY
DBA TIMBERLAND WOOD FLOORS
16803 DALLAS PKWY STE 200
ADDISON, TX 75001-5220

BUSINESS REGISTRATION ACCOUNT NUMBER: 1050-1395

This certificate is issued on: 07/7/2010

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.2
L1103002368

ATTACHMENT D
REGULATORY DISCUSSION & APPLICABILITY
REVIEW

ATTACHMENT D: REGULATORY DISCUSSION AND APPLICABILITY REVIEW

For the purposes of this application, the pollutants of concern were PM, PM₁₀, and VOC. The proposed project will allow the facility to begin producing wire brushed visual products in varied widths. This will entail the installation of several saws and sanders to allow for the new width products as well as the repurposing of the existing PUMA lines, and expansion of PUMA Line 1 conveying system to two lines. In addition, a new hog will be installed which will exhaust to Cyclone No. 4 and Baghouse No. 5, utilizing the 13” duct previously used by the Jacobsen Hog of same size and throughput capacity. This addition will not impact the design or capacities of either the cyclone or baghouse.

The new equipment will impact the inlet air flow rates to Baghouse Nos. 2 and 5, thereby increasing actual PM and PM₁₀ emissions. However, no physical changes will take place for either the cyclones or baghouses which control PM and PM₁₀ emissions from the affected equipment. Therefore, potential PM and PM₁₀ emissions from the Flooring Mill will not be affected by the proposed changes to the site.

A new white wash material will be utilized on the new products. However, the VOC content of the new white wash material is less than the black wash currently in use on PUMA Line #1. An increase in material consumption and utilization of the stain ovens and PUMA oven are projected as a result of the new products, thereby increasing actual VOC emissions from the Visually Distressed Flooring Lines, specifically from PUMA Line #1 operations. However, the lines are subject to a VOC emissions limit of 5.1 tons per year for both lines. No changes are being requested to this limit. Therefore, potential VOC emissions from the Flooring Lines will not be affected by any of the proposed changes to the site.

The proposed process and operational modifications will not impact any permit emission limits. The only proposed changes to the permit are based on a correction to the design air flow capacity of the No. 5 Baghouse, a revision to the design capacity of the flooring mill from an hourly average throughout rate to a daily maximum production rate, corrections to typographical errors in the permit, and a revision to the maximum throughput capacity of the Visually Distressed Flooring Lines.

No state or federal regulations will be triggered by this change and no new standards will apply to the Flooring Mill or Visually Distressed Flooring Lines.

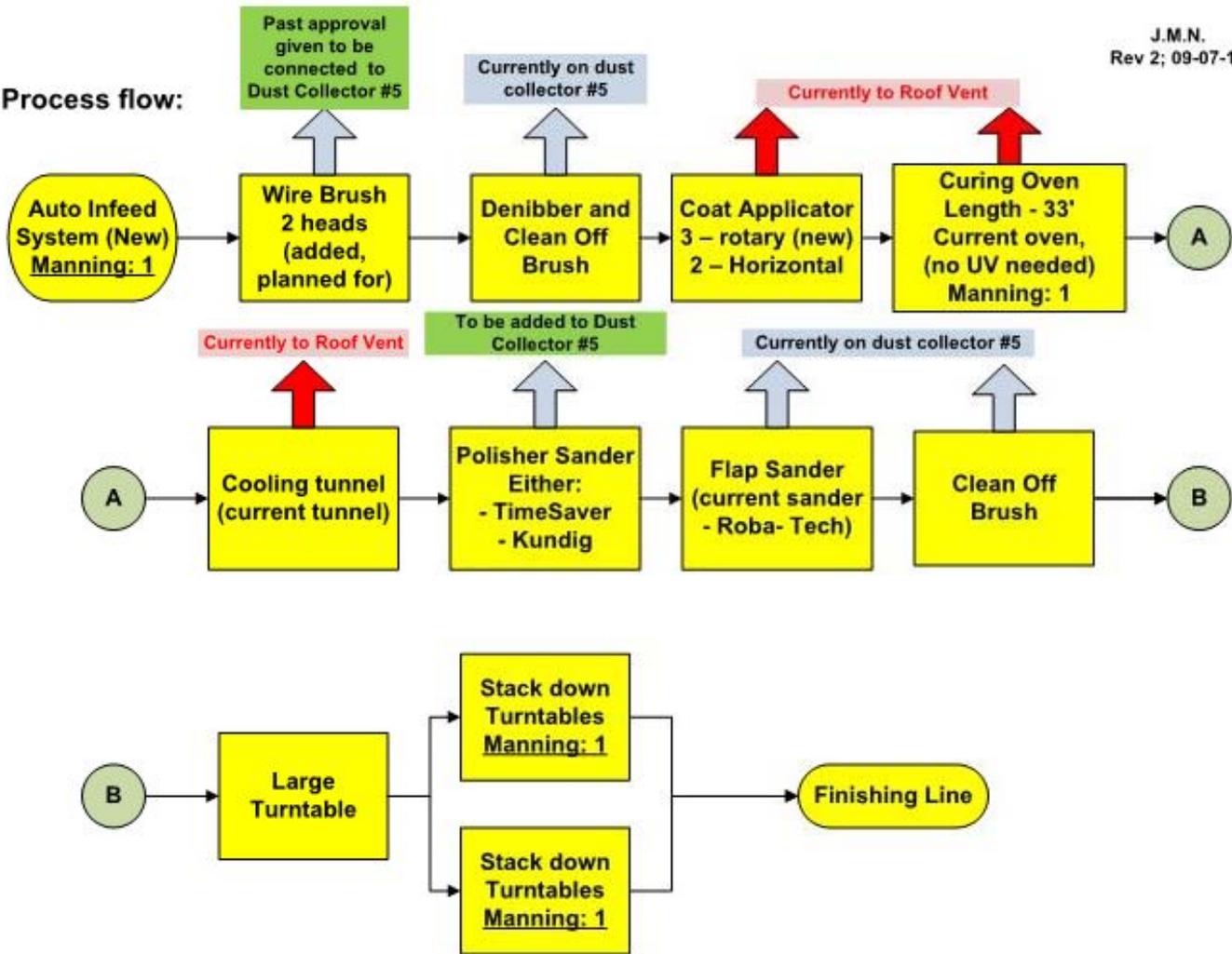
ATTACHMENT F

PROCESS FLOW DIAGRAM

Proposed Wire Brush/Black Wash Line @ Beverly WV

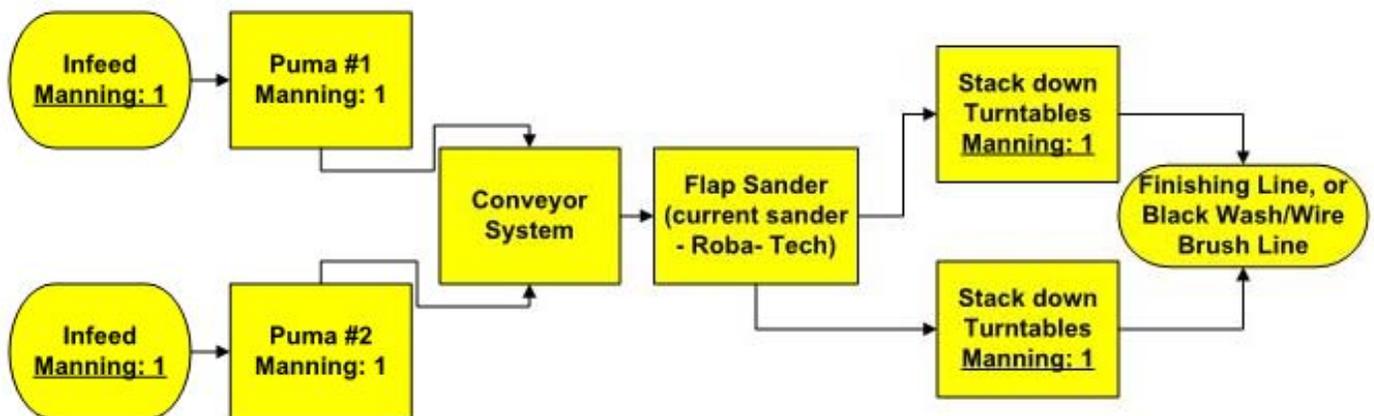
J.M.N.
Rev 2; 09-07-15

Process flow:



Line Speed:
45 ft/min / 24" wide belt

Proposed Puma 1 & 2 Process Line @ Beverly WV



ATTACHMENT G PROCESS DESCRIPTION

ATTACHMENT G: PROCESS DESCRIPTION

Overall Facility Process Description:

Green lumber is purchased and stacked in the Mill Yard to facilitate air drying of the lumber. The lumber is then further dried in the steam heated pre-dryer and/or one of 38 lumber kilns. Kiln-dried lumber is transferred by one of three lumber tilts to the Mill rough end saws. The rough end saws cut the lumber into strips for transfer to one of six lines of knot saws, side matchers, and end matchers. The unfinished wood flooring is graded, stacked and either stored or transferred to one of two finishing lines. Finished hardwood flooring is graded and packaged for shipment to mill customers. Two wood-fired boilers provide heat and steam to the plant.

Flooring Mill:

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

The enclosed application is for the addition of equipment, including saws and sanders, which will allow the facility to begin producing wire brushed visual products of varied width. No physical changes to or impact on the control efficiency of the baghouses will occur.

In addition, the black wash step of the Visually Distressed Flooring Lines operations (PUMA line #1) will be expanded from one line to two feed lines and will add use of a new white wash material for the new products.

BEVERLY DUST SYSTEM SIZING

BASED ON FUTURE STATE CHANGES WBL MACHINES SPLIT TO BH#2 and BH#5

CURRENT		
BAGHOUSE #2		
MACHINERY	DUCT SIZES	AREA SQ FT
TNG END MATCHER #2	3-6"/1-5" DIAMETER	0.725
GRV END MATCHER #2	2-6" DIAMETER	0.393
SIDE MATCHER #2	3-8 /2-10"DIA.	2.138
KNOT SAWS #2	5-5" DIAMETER	0.682
SPLITTER #5	6-8" / 2-7" DIAMETER	2.629
SPLTR KNOT SAW #5 (REMOVED 1 KS)	4-5" DIAMETER	0.545
RE-RIP SAW	1-4"/1-7"	0.355
CAP (OPENING ADJUSTABLE)	1-25" DIAMETER	3.409
CONVEYOR	1-5" DIAMETER	0.136
CAPS CLOSED	3-6"/1-9" DIAMETER	0.000
	TOTAL AREA	11.012
	ACTUAL MAIN = 45"	11.045
MEASURED & PROVIDED		CURRENT AIR FLOW
MEASURED AIR VELOCITY (FPM)	50224	CFM
4561		
MAX FLOW FROM MAIN (CFM)	50373	CFM
4561		
AREA OF CAN (SQ. FT)	284	Can Vel (FPM)
177		
AREA OF CLOTH (SQ. FT.)	6.1	Air to Cloth
8,294		
Capacity	50373	CFM
Current Actual	50224	CFM

FUTURE		
BAGHOUSE #2		
MACHINERY	DUCT SIZES	AREA SQ FT
TNG END MATCHER #2	3-6"/1-5" DIAMETER	0.725
GRV END MATCHER #2	2-6" DIAMETER	0.393
SIDE MATCHER #2	3-8"/2-10" DIAMETER	2.138
KNOT SAWS #2	5-5" DIAMETER	0.682
SPLITTER #5	6-8" / 2-7" DIAMETER	2.629
SPLTR KNOT SAW #5 (REMOVED 1 KS)	4-5" DIAMETER	0.545
SIDE MATCHER #3	3-6"/1-8"/1-10" DIA.	1.484
KNOT SAW #3	5-5" DIAMETER	0.682
BAND SAW	1-9" DIAMETER	0.442
DENIB SANDER	3-7" DIAMETER	0.802
CLEAN OFF BRUSH	1-7" DIAMETER	0.267
CONVEYOR	1-5" DIAMETER	0.136
CAPS CLOSED	3-6"/1-9" DIAMETER	0.000
	TOTAL AREA	10.926
	ACTUAL MAIN = 45"	11.045
MEASURED & PROVIDED		FUTURE AIR FLOW
MEASURED AIR VELOCITY (FPM)	49830	CFM
4561		
MAX FLOW FROM MAIN (CFM)	50373	CFM
4561		
AREA OF CAN (SQ. FT)	282	Can Vel (FPM)
177		
AREA OF CLOTH (SQ. FT.)	6.0	Air to Cloth
8,294		
Capacity	50373	CFM
Future Actual	49830	CFM

CURRENT		
BAGHOUSE #5		
MACHINERY	DUCT SIZES	AREA SQ FT
TEM #3	2-5"/1-6" DIAMETER	0.469
GEM #3	2-5" DIAMETER	0.273
SIDE MATCHER #3	3-6" 1-8" 1-10" DIA	1.484
KNOT SAWS #3	5-5" DIAMETER	0.682
RANDOMAT	4-5" DIAMETER	0.545
PUMA	32" DIAMETER MAIN	5.585
	TOTAL AREA	9.038
	ACTUAL MAIN = 42"	9.621
MEASURED & PROVIDED		CURRENT AIR FLOW
MEASURED AIR VELOCITY (FPM)	39648	CFM
4387		
MAX FLOW FROM MAIN (CFM)	42208	CFM
4387		
Add on 5/16 Wood Hog Cyclone #4 (CFM)	46606	CFM
4398		
Open 13" Line (Prev Jacobsen Hog) (CFM)	51768	CFM
5162		
AREA OF CAN (SQ. FT)	320	Current Actual Can Vel (FPM)
154		
AREA OF CLOTH (SQ. FT.)	7.1	Current Actual Air to Cloth
6,887		
Capacity	51768	CFM

FUTURE		
BAGHOUSE #5		
MACHINERY	DUCT SIZES	AREA SQ FT
TEM #3	3-6"/1-5" DIAMETER	0.726
GEM #3	2-6" DIAMETER	0.392
WIRE BRUSH #1	1-6" DIAMETER	0.000
WIRE BRUSH #2	1-6" DIAMETER	0.000
RANDOMAT	4-5" DIAMETER	0.545
PUMA	32" DIAMETER MAIN	5.585
POLISH SANDER	2-6"/2-5"/1-4" DIA.	0.753
CHOP SAW	1-4" DIAMETER	0.087
RE RIP SAW	1-4"/1-6" DIAMETER	0.284
CAP	1-15" DIAMETER	1.227
	TOTAL AREA	9.599
	ACTUAL MAIN = 42"	9.621
MEASURED & PROVIDED		FUTURE AIR FLOW
MEASURED AIR VELOCITY (FPM)	42110	CFM
4387		
MAX FLOW FROM MAIN (CFM)	42208	CFM
4387		
Add on 5/16 Wood Hog Cyclone #4 (CFM)	46606	CFM
4398		
Proposed Hog (CFM)	51768	CFM
5162		
AREA OF CAN (SQ. FT)	336	Future Actual Can Vel (FPM)
154		
AREA OF CLOTH (SQ. FT.)	7.5	Future Actual Air to Cloth
6,887		
Capacity	51768	CFM

ATTACHMENT H
SAFETY DATA SHEETS

SAFETY DATA SHEET



Date of issue/Date of revision 28 August 2015

Version 2

Section 1. Identification

Product name : WB WHITEWASH
Product code : GF121-58 (F1)
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (414) 764-6000 (OAK CREEK, WI) 8:00 a.m. - 5:00 p.m. Central

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : CARCINOGENICITY - Category 2

 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 20.9%

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Suspected of causing cancer.

Precautionary statements

United States

Page: 1/12

Section 2. Hazards identification

Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Response	: IF exposed or concerned: Get medical attention.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Emits toxic fumes when heated.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: WB WHITEWASH

Ingredient name	%	CAS number
Titanium dioxide	≥25 - <50	13463-67-7
aluminium hydroxide	≥3 - <5	21645-51-2
proprietary hazardous additives	≥1 - <3	Not available.
NJTS #56705700001-6977P	≥1 - <3	Not available.

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Section 4. First aid measures

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments : No specific treatment.
Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
titanium dioxide	OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 4/2014). TWA: 10 mg/m ³ 8 hours.
aluminium hydroxide	ACGIH TLV (United States, 4/2014). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction ACGIH TLV (United States). TWA: 1 mg/m ³
proprietary hazardous additives NJTS #56705700001-6977P	None. None.

Key to abbreviations

- | | |
|---|---|
| A = Acceptable Maximum Peak | S = Potential skin absorption |
| ACGIH = American Conference of Governmental Industrial Hygienists. | SR = Respiratory sensitization |
| C = Ceiling Limit | SS = Skin sensitization |
| F = Fume | STEL = Short term Exposure limit values |
| IPEL = Internal Permissible Exposure Limit | TD = Total dust |
| OSHA = Occupational Safety and Health Administration. | TLV = Threshold Limit Value |
| R = Respirable | TWA = Time Weighted Average |
| Z = OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances | |

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : 8

Melting point : Not available.

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 98.89°C (210°F)

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 9.9%

Section 9. Physical and chemical properties

Evaporation rate	: 0.41 (butyl acetate = 1)
Vapor pressure	: 2.5 kPa (18.9 mm Hg) [room temperature]
Vapor density	: Not available.
Relative density	: 1.41
Density (lbs / gal)	: 11.77
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 67% (v/v), 47.05% (w/w)
% Solid. (w/w)	: 52.95

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Titanium dioxide	LD50 Oral	Rat	>10 g/kg	-
NJTS #56705700001-6977P	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Section 11. Toxicological information**Conclusion/Summary****Skin** : There are no data available on the mixture itself.**Respiratory** : There are no data available on the mixture itself.**Mutagenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Carcinogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Classification**

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity**Conclusion/Summary** : There are no data available on the mixture itself.**Teratogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Specific target organ toxicity (single exposure)**

Name	Category
Proprietary hazardous additives NJTS #56705700001-6977P	Category 3 Category 3

Specific target organ toxicity (repeated exposure)

Not available.

Target organs: Contains material which may cause damage to the following organs: lungs, the nervous system, upper respiratory tract, skin, eyes.**Aspiration hazard**

Not available.

Information on the likely routes of exposure**Potential acute health effects****Eye contact** : No known significant effects or critical hazards.**Inhalation** : No known significant effects or critical hazards.**Skin contact** : No known significant effects or critical hazards.**Ingestion** : No known significant effects or critical hazards.**Over-exposure signs/symptoms****Eye contact** : No specific data.**Inhalation** : No specific data.**Skin contact** : No specific data.**Ingestion** : No specific data.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

DOT : None identified.

IMDG : None identified.

IATA : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Titanium dioxide	No.	No.	No.	No.	Yes.
proprietary hazardous additives	Yes.	No.	No.	Yes.	No.
NJTS #56705700001-6977P	Yes.	No.	No.	Yes.	No.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * Flammability : 1 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 1 Instability : 0

Date of previous issue : 7/28/2015

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

Section 16. Other information

✔ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

ATTACHMENT I EMISSION UNITS TABLE

ATTACHMENT N

SUPPORTING EMISSIONS CALCULATIONS

**Armstrong Hardwood Flooring Company - Beverly Plant
Permit Modification - September 2015**

Attachment N: Emissions Calculations - PM and PM10 Emissions from Affected Baghouses

Emission Point ID	Emission Unit Description	Design Capacity ACFM	Current ACFM	Emission Factor (gr/cf)	Hours of Operation Per Year	Current Max Actual Emissions				Potential Emissions & Proposed Permit Limits			
						PM Emissions (lbs/hr)	PM Emissions (tons/yr)	PM ₁₀ Emissions (lbs/hr)	PM ₁₀ Emissions (tons/yr)	PM Emissions (lbs/hr)	PM Emissions (tons/yr)	PM ₁₀ Emissions (lbs/hr)	PM ₁₀ Emissions (tons/yr)
S04	No. 2 Baghouse	50,373	50,224	0.005	8760	2.15	9.43	0.43	1.89	2.16	9.46	0.43	1.89
S07	No. 5 Baghouse	51,768	48,433	0.005	8760	2.08	9.09	0.42	1.82	2.22	9.72	0.44	1.94

Emission Point ID	Baghouse	Design Capacity ACFM	Future ACFM	Emission Factor (gr/cf)	Hours of Operation Per Year	Future Max Actual Emissions				Potential Emissions & Proposed Permit Limits			
						PM Emissions (lbs/hr)	PM Emissions (tons/yr)	PM ₁₀ Emissions (lbs/hr)	PM ₁₀ Emissions (tons/yr)	PM Emissions (lbs/hr)	PM Emissions (tons/yr)	PM ₁₀ Emissions (lbs/hr)	PM ₁₀ Emissions (tons/yr)
S04	No. 2 Baghouse	50,373	49,830	0.005	8760	2.14	9.35	0.43	1.87	2.16	9.46	0.43	1.89
S07	No. 5 Baghouse	51,768	50,895	0.005	8760	2.18	9.55	0.44	1.91	2.22	9.72	0.44	1.94

Notes:

1. Emission Factor based on using dry wood dust in 99.9% Efficient Donaldson DuraLife Bags is 0.005 grains/cf
2. PM10 calculated at 20% of total PM emissions
3. Emission Rate (lbs/hr) = Emission Factor (gr/cf) x Air Flow (cfm) x 60 min/hr / 7,000 (grains/lb)
4. Emission Rate (tons/yr) = Emission Factor (gr/cf) x Air Flow (cfm) x 60 min/hr x 8760 hrs/yr / 7,000 gr/lb / 2,000 lb/ton

**Armstrong Hardwood Flooring Company - Beverly Plant
Permit Modification - September 2015**

Attachment N: Emissions Calculations - Increase in VOC Emissions From Proposed Changes

Product Code	Product Description	Density (lbs/gal)	VOC Content (lbs/gal)	HAP Content (wt%)
A1468D35	Blackwash	8.55	0.13	0.00%
GF121-58(F1)	WB Whitewash	11.77	0.06	0.00%

Month	Usage (gals)	Rolling 12-month total (gals)	Rolling 12-month total (lbs)	VOC Emissions (lbs)	Rolling 12-month VOC Emissions (lbs)
Jul-14	42			5.46	
Aug-14	22			2.86	
Sep-14	42			5.46	
Oct-14	72			9.36	
Nov-14	32			4.16	
Dec-14	54	346	2,958	7.02	44.98
Jan-15	20	358	3,061	2.6	46.54
Feb-15	38	384	3,283	4.94	49.92
Mar-15	29	401	3,429	3.77	52.13
Apr-15	12	407	3,480	1.56	52.91
May-15	14	409	3,497	1.82	53.17
Jun-15	8	385	3,292	1.04	50.05

Based on expansion from one (PUMA Line #1) line to two feed lines, material consumption is expected to double.

Expected Increase In Usage 210%

Conservatively assuming worst case scenario of doubling application of the higher VOC content black wash using the highest 12-month period from May 2015:

53.17 lbs/yr OR 0.03 tons/yr

Projected VOC Emissions After Modification 0.06 tons/yr

Change in Actual VOC Emissions 0.03 tons/yr

Max Production Capacity 1,375 sq ft/hr
OR 11000 sq ft/shift
Average Stain Use Per Shift 2.5 gals/shift
0.000227 gals/sq ft

Max Line Capacity After Mod 35,162 sq ft/shift
Max Stain Consumption 7.99 gals/shift
Max VOC Emissions Rate 1.04 lb VOC/shift
0.13 lb/hr OR 0.57 ton/yr

Proposed changes will not impact the VOC Emissions Limit from Visual Distressed Flooring Lines:

1.9 lbs/hr VOC
5.1 tons/yr VOC [Condition 5.1.7 of the Permit]

**Armstrong Hardwood Flooring Company - Beverly Plant
Permit Modification - September 2015**

Attachment N: Emissions Calculations - Increased Utilization of Combustion Sources in Finishing Operations

No. 1 Finish Line Stain Oven	1.6 MMBtu/hr
No. 2 Finish Line Stain Oven	1.6 MMBtu/hr
PUMA Oven	1 MMBtu/hr
Total Heat Input Capacity	4.2 MMBtu/hr
Natural Gas Heating Value	1,020 Btu/scf
Max Hours of Operation	8,760 Hrs/Yr

Month	Total NG Used (cf)	12-Month Total (cf)
Jul-14	30	
Aug-14	11	
Sep-14	42	
Oct-14	39.4	
Nov-14	18	
Dec-14	77.7	431
Jan-15	88.5	519.5
Feb-15	102.7	530.3
Mar-15	115.8	586.2
Apr-15	54.1	595.4
May-15	49.5	640.9
Jun-15	20.4	649.1

Table C-2: Emission Factors for Fuel Combustion

Fuel Type	Emission Factors (lbs per MMcf)						
	NO _x	CO	PM	PM10	PM2.5	SO ₂	VOC
Natural Gas (lbs/MMcf)	100	84	7.6	7.6	7.6	0.6	5.5

*Emission Factors obtained from AP-42 Tables 1.4-1 and 1.4-2 for Natural Gas

Table C-3: Actual Emissions Before and After Mod

	NO _x	CO	PM	PM10	PM2.5	SO ₂	VOC
Before Proposed Changes	3.25E-05	2.73E-05	2.47E-06	2.47E-06	2.47E-06	1.95E-07	1.79E-06
After Proposed Changes	6.82E-05	5.73E-05	5.18E-06	5.18E-06	5.18E-06	4.09E-07	3.75E-06
Change in Emissions	3.57E-05	3.00E-05	2.71E-06	2.71E-06	2.71E-06	2.14E-07	1.96E-06

Table C-5: Potential Emissions Before and After Mod

	NO _x	CO	PM	PM10	PM2.5	SO ₂	VOC
Total Emissions	1.80	1.51	0.14	0.14	0.14	0.01	0.10

ATTACHMENT O
MONITORING, RECORDKEEPING, REPORTING, AND
TESTING PLANS

ATTACHMENT O: MONITORING, TESTING, RECORDKEEPING PLAN

Monitoring Requirements:

No changes are proposed to the existing monitoring requirements for each of the affected baghouses. The following existing monitoring requirements will apply remain applicable to Baghouse Nos. 2 and 5:

Weekly Method 22 visible emissions checks required by condition 5.2.1 of the permit.

Each cyclone, baghouse, and exhaust system will be operated and maintained in accordance with manufacturer's specification to ensure 99.9% control efficiency. Operational practices include replacement of broken bags, proper fan operations, prompt replace of fans and duct work, daily inspections, and daily monitoring of pressure drop across each baghouse. The normal operating pressure drop range for each baghouse is 0.2 to 0.65 inches of water.

Testing Requirements:

No changes are proposed that will impact or trigger any testing requirements.

Applicable Recordkeeping Requirements:

The following records will be maintained on file for a minimum of five years:

- Records of visible emission monitoring data and opacity evaluations will be maintained on file.
- Records of monitoring data involved with proper operation, daily inspections, and pressure drop readings
- Records of regular preventative maintenance conducted on the baghouse in accordance with manufacturer's specifications
- Description of any malfunctions of any baghouse including, start time, duration, cause, and corrective action
- Monthly records of the amount and VOC content of any stain used in the Visually Distressed Flooring Lines

Reporting Requirements:

Any violations of the allowable visible emissions requirements for any baghouse will be reported in writing within 10 calendar days of the occurrence and will include the results of the visible emissions determination, the cause, and any corrective measures taken or planned.