

Federal Operating Permit  
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name: Smurfit-Stone Container Enterprises, Inc.  
Facility Name: Hopewell Mill  
Facility Location: 910 Industrial Street  
Hopewell, Virginia 23860

Registration Number: 50370  
Permit Number: PRO50370

July 1, 2009  
Effective Date

September 11, 2010  
Expiration Date

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Deputy Regional Director  
Department of Environmental Quality

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Signature Date

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## **I. Facility Information**

### **Permittee**

Smurfit-Stone Container Enterprises, Inc.

Hopewell Mill

910 Industrial Street

Hopewell, Virginia 23860

### **Responsible Official**

Mr. Charles Bogatie

General Manager

### **Contact Person**

Mr. Kai Simonsen

Environmental Manager

(804) 541-9695

**County-Plant Identification Number:** 51-670-0003

**Facility Description:** NAICS 322130 SIC Code 2631- Paperboard Mills and 2611 – Pulp mills, including those producing paperboard.

The facility produces liner board using wood chips and the Kraft process, and also using recycled fiber. Kraft sulfate turpentine and tall oil are co-produced at this facility. Additionally, the boiler on site and the recovery furnace are used as a cogeneration facility, which sells excess power to the local utility.

The facility is a Title V major source of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>10</sub>, VOC, CO, TRS, H<sub>2</sub>S, sulfuric acid mist, methanol (67-56-1), acetaldehyde (75-07-0), formaldehyde (50-00-0), hydrogen chloride (7647-01-0), and for total hazardous air pollutants. This source is located in a nonattainment area for ozone (NO<sub>x</sub>, and VOC) and is a PSD major source. Portions of the facility were previously permitted under a PSD permit issued on April 2, 1984. This permit was subsequently modified using the minor source permitting regulations. The modified permit was issued on July 29, 1999 and superseded by a permit issued on June 5, 2000. The permit was amended on June 18, 2009. The facility has a RACT agreement, which was formalized in a Consent Agreement dated May 30, 1996.

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Wood Yard Process Area</b>							
WY-01	fug	Paved and unpaved road vehicle traffic					
WY-02	fug	chip scalping and screening	181 tons/hr wood chips				
<b>Pulp Mill Process Area</b>							
HW-PUM2-V037		2 - Batch Digester Systems (10/1953)	3,000 cubic feet, each (36,000 cubic feet total)	Lime Kiln/Coal/Bark Boiler	HW-CRP2-SO22 HW-PSG2-S022	VOC (98%) HAP (98%)	40 CFR 63 Subpart S
		7 - Batch Digester Systems (10/1955)					
		1 - Batch Digester System (12/1984)					
		1 - Batch Digester System (6/1985)					
		1 - Batch Digester System (8/1986)					
HW-PUM1-A030		Brown Stock Washer System (<3/17/1972)	15 BODTP/hr 450,000 ADTP/yr				6/12/2009 40 CFR 63 Subpart S
<b>Recausticizing Area</b>							
HW-CRP2-SO22	HW-CRP2-SO22	Lime Kiln (<3/17/1972)		Airpol scrubber  Electrostatic Precipitator	HW-CRP2-CD022 HW-CRP2-CD022P	PM (98%) PM (98%)	40 CFR 63 Subpart MM
HW-CRP1-V016	HW-CRP1-V016	Slaker (1967)		Dorr Oliver wet scrubber	HW-CRP1-CD016	PM (75%)	
HW-CRP1-V017	HW-CRP1-V017	Slaker (1976)		Dorr Oliver wet scrubber	HW-CRP1-CD017	PM (75%)	
HW-CRP1-V999		Recausticizing Process Area					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
HW-CRP1-S030	HW-CRP1-S030	Lime storage silo		Indusco Baghouse	HW-CRP1-CD030	PM (99%)	
Chemical Recovery Process Area							
HW-PSG4-S013	Chrsv-03	Black liquor recovery furnace (1980)	788 MMBtu/hr 62 tons VDBLS/hr	Electrostatic Precipitator	HW-PSG4-CD013	PM (99.7%)	6/12/2009 40 CFR 60 Subpart BB 40 CFR 63 Subpart MM
				Sulfidity control	N/A (pollution prevention)	SO <sub>2</sub> (no CE since is P2)	
				Indirect contact/combustion control	N/A (work practice)	TRS (no CE since is work practice)	
HW-PSG4-V999	HW-PSG4-S999	18 black liquor storage tanks	8,182,880 gallons combined				
HW-PSG4-V027	Chrsv-01	Heavy black liquor storage tanks (1979)	383,880 gallons				
HW-PSG4-S999A	HW-CRP2-S022/ HWPSG2-S022 19(a) 19(b)	Multiple Effect Evaporators (MEEV) and High Solids Crystallizers (2001)	897,000 lbs water/hour	Lime Kiln/ Coal/bark boiler	Lime Kiln HW-CRP2-S022 Coal/bark boiler HW-PSG2-S022	VOC (98%) HAP (98%) TRS (99%)	6/12/2009 40 CFR 60 Subpart BB 40 CFR 63 Subpart S and RR
HW-PSG4-S018	Chrsv-04	Smelt dissolving tank (1980)	62.5 tons VDBLS/hr 2.9 VDBLS/day	Wet scrubber	HD-PSG4-CD018	PM (97.7%) TRS (20%)	6/12/2009 40 CFR 60 Subpart BB 40 CFR 63 Subpart MM
HW-PSG4-S999B	HW-PSG4-S999BS	Soap Skimmer (2001)	7,119 lbs dry soap per hour				6/12/2009
18		Cooling Tower (2001)	24,000 gal/min				6/12/2009
		Zero Emission Weak Black Liquor Filter					CA 5/30/1996

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Co-Product Recovery Process Area</b>							
HW-CT01-V009	HW-CT01-V009	Tall oil batch reactor (<3/17/1972)	22,500 tons crude tall oil/year	Packed tower wet scrubber	HW-CT01-CD009	VOC (20.5%)	CA dated 5/30/1996
HW-CST1-V001A		Turpentine Condenser/Decanter Tank (1951)	11,657 gallons capacity 450,000 gallons/yr				6/12/2009 40 CFR 63 Subpart S and Subpart RR
HW-CST1-V001B		Turpentine Storage (1951)	27,727 gallons capacity				6/12/2009 40 CFR 63 Subpart S and Subpart RR
19		Low volume high concentration non-condensable gas collection and conveying system (2001)	60,000 actual ft/hr at 130°F 1,970 lbs/hr	Control Valve	19(a)/19(b)	HAP containing NCG (max 1% venting)	6/12/2009 40 CFR 60 Subpart BB 40 CFR 63 Subpart S
21		UNOX Feed tank (2001)	85,000 gallons 7.2 lb HAP/ODTP				6/12/2009 40 CFR 63 Subpart S and Subpart RR
HW-CST01-V997		Settling Tank	19,900 gallons				
HW-CT01-V999		Co-product recovery process area (excluding tall oil batch reactor)	450,000 gallons/yr				
<b>Paper Mill Process Area</b>							
HW-PAM1-F031	HW-PAM1-F031	Batch cleaning operation for paper machine (1953)					
HW-PAM1-S001	HW-PAM1-S001	Paper machine vacuum pump-Flume (<1972)					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
HW-PAM1-S001/ S002	HW-PAM1-S002	Paper machine vacuum pumps including separator and UHLE Box (<1972)					
HW-PAM1-S011	HW-PAM1-S011	Wet End (Fourdrinier) (1980)					
HW-PAM1-S012	HW-PAM1-S012	Paper machine press section (1980)					
HW-PAM1-S016	HW-PAM1-S016	Dryer hood (1953)					
HW-PAM1-S999	HW-PAM1-S999	Paper mill process area					
HW-PAM1-V998	HW-PAM1-V998	2-High density storage chests (1959)	1,592,000 gallons combined				
<b>Power Generation Process Area</b>							
HW-PSG2-F002, F003, F004		Coal Handling Equipment (coal crusher, various conveyors, and coal silos) (1980)	400 tons coal/hr				
HW-PSB3-F001, F002, F003	HW-PSB3-F001, F002, F003	Cooling Tower (1980)	23,000 GPM				
HW-PSG2-S022/ S006	HW-PSG2-S022	B&W Coal/bark boiler	Coal - 755 million Btu/hr	Environmental Elements Electrostatic Precipitator Sulfur content limit on Coal of 1.2% Off-Stoichiometric firing with secondary air	HW-PSG2-CD022	PM (99.5%)	6/12/2009 40 CFR 60 Subpart D 40 CFR 63 Subpart S
			Coal/Wood Residue - 846 million Btu/hr				
			Wood Residue - 443 million Btu/hr				
					N/A (pollution prevention) N/A (work practice)	SO <sub>2</sub> (no CE since P2) NO <sub>x</sub> (no CE since work practice)	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Miscellaneous Sources							
HW-MNT1-F007	Fugitive	Parts Cleaner-Truck Shop Kleer-Flo J-80 (>3/17/1972)	50 gallons				
HW-MNT1-F008	Fugitive	Parts Cleaner-Machine Shop Kleer-Flo J-80 (>3/17/1972)	50 gallons				
HW-GAS1-F001	Fugitive	Gasoline Storage and Dispensing (1992)	2000 gallons 8000 gallons/yr				
HW-URD1-F001	Fugitive	Unpaved road fugitive emissions (w/o woodyard)					
HW-MNT1-F009	Fugitive	Parts Cleaner-Mill Maintenance Shop Kleer-Flo J-80 (>3/17/1972)	50 gallons				
PWR-10	PWR-10	6 - Fuel Oil Storage Tanks (1995)	266,000 gallons, total				

The size/rated capacity is provided for informational purposes only, and is not an applicable requirement.

Abbreviations: ADTP = Air Dry Tons of Pulp  
 ADTFP = Air Dry Tons of Finished Product  
 VDBLS = Virgin Dry Black Liquor Solids  
 CA = Consent Agreement

### **III. Facility Wide Applicable Requirements**

#### **III.A. Requirements by Reference**

III.A.1. Except where this permit is more restrictive than the applicable requirement, all applicable MACT Subpart S equipment shall be operated in compliance with the requirements of 40 CFR 63, Subpart S by the dates specified in 40 CFR 63, Subpart S.  
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)

III.A.2. Except where this permit is more restrictive than the applicable requirement, all applicable MACT Subpart MM equipment shall be operated in compliance with the requirements of 40 CFR 63, Subpart MM by the dates specified in 40 CFR 63, Subpart MM.  
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)

III.A.3. Except where this permit is more restrictive than the applicable requirement, all applicable MACT Subpart RR equipment shall be operated in compliance with the requirements of 40 CFR 63, Subpart RR.  
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)

III.A.4. Except where this permit is more restrictive than the applicable requirement, all applicable NSPS Subpart Y equipment shall be operated in compliance with the requirements of 40 CFR 60, Subpart Y.  
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)

III.A.5. Except where this permit is more restrictive than the applicable requirement, all applicable NSPS Subpart BB equipment shall be operated in compliance with the requirements of 40 CFR 60, Subpart BB.  
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)

III.A.6. Except where this permit is more restrictive than the applicable requirement, all applicable NSPS Subpart D equipment shall be operated in compliance with the requirements of 40 CFR 60, Subpart D.  
(9 VAC 5-60-90, 9 VAC 5-60-100 and 9 VAC 5-80-110)

#### **III.B. Limitations**

III.B.1. The kraft pulp mill shall produce no more than 450,000 tons of air dried unbleached kraft pulp (10% by weight moisture content) per year, calculated monthly as the sum of each consecutive 12 month period.  
(9 VAC 5-80-110, Condition #25 of the June 18, 2009 permit, and Section D, #6 CA dated 05/30/1996)

III.B.2. No violation of applicable emission standards or monitoring requirements shall be judged to have taken place if the excess emissions or cessation of

monitoring activities is due to a malfunction, provided that the permittee has taken expedient and reasonable measures to minimize emissions during the breakdown period; the permittee has taken expedient and reasonable measures to correct the malfunction and return the facility to a normal operation, and the source is in compliance at least 90% of the operating time over the most recent 12 month period.

(9 VAC 5-80-110, Condition #31 of the June 18, 2009 permit, and Section E, #6, CA dated 5/30/1996)

III.B.3. The permittee shall install or continue to operate those technologies deemed to be RACT in a manner consistent with the consent agreement dated 05/30/1996. If the permittee plans to modify the control equipment or method in a manner that will result in a decrease in VOC reduction efficiencies below those defined in the consent agreement dated 05/30/1996 in paragraphs E.2, E.3, E.6, E.7 and E.8, (Conditions V.A.10, IV.A.7, VI.A.3, VII.A.2 and VII.A.3 respectively). The permittee shall submit a request for a revision of the agreement to the Director, Piedmont Regional Office.

(9 VAC 5-80-110 and Section E, #14, CA dated 05/30/1996)

III.B.4. Should the permittee plan any changes within the context of the new source review program to the control technologies or methods described as RACT in the agreement dated 05/30/1996, the permittee shall have the right to apply to the Board for a new source review permit, and the Board may consent to such changes, provided such changes will meet all of the new source review permit program regulatory requirements in existence at that time.

(9 VAC 5-80-110 and Section E, #17, CA dated 05/30/1996)

III.B.5. Emissions from the operation of each piece of equipment listed below shall not exceed the limitations specified below:

	Particulate TSP/PM10	Nitrogen Oxides NO <sub>x</sub>	Sulfur Dioxide SO <sub>2</sub>	Total Reduced Sulfur TRS	Volatile Organic Compounds VOC	Carbon Monoxide CO
Coal/Bark boiler HW-PSG2-S022	318.9 tpy	2,190.0 tpy	3801.8 tpy			
Coal/Bark boiler (non- condensable gas thermal oxidation)		1.4 tpy	22.2 tpy	0.1 tpy	8.0 tpy	14.2 tpy
Black liquor recovery boiler HW-PSG4-S013	300.9 tpy		2,768.2 tpy	21.0 tpy		
Smelt dissolving tank HW-PSG4-S018	54.8 tpy			4.8 tpy		
MEEV/Crystallizer HW-PSG4-S999					3.5 tpy	
Soap Skimmer HW-PSG4-S999B				0.4 tpy	0.4 tpy	
Induced draft cooling tower HW-PSB3-F	8.8 tpy					

(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition #20 of the June 18, 2009 permit)

III.B.6. The permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The plan shall identify all routine or otherwise predictable continuous monitoring system malfunctions. This plan shall be developed and implemented by the permittee for all applicable equipment in accordance with all applicable MACTs by the appropriate compliance dates. The purpose of the startup, shutdown, and malfunction plan is to:

- a. Ensure that, at all times, the permittee operates and maintains affected sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by the relevant standard.
- b. Ensure that the permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
- c. Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(9 VAC 5-80-110 and 40 CFR 63.6(e)(3))

III.B.7. During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under Condition III.B.6.

(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(ii))

III.B.8. The Director, Piedmont Region may require that the permittee make changes to the startup, shutdown, and malfunction plan if the plan:

- a. Does not address a startup, shutdown, or malfunction event that has occurred;
- b. Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this permit; or
- c. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(vii))

III.B.9. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the

permittee developed the plan, the permittee shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.

(9 VAC 5-80-110 and 40CFR 63.6(e)(3)(viii))

### **III.C. Monitoring**

III.C.1. Each owner or operator subject (for those pieces of equipment subject to 40 CFR 63, Subpart S) to the standards specified in §§63.443(c) and (d), 63.444(b) and (c), 63.445(b) and (c), 63.466(c), (d), and (e), 63.447(b) or §63.450(d), shall install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a continuous monitoring system as specified in paragraphs (b) through (m) of 40 CFR 63.453, except as allowed in paragraph (m) of 40 CFR 63.453. The CMS shall include a continuous recorder.

(9 VAC 5-80-110 and 40 CFR 63.453(a))

III.C.2. The permittee shall operate each control device subject to the monitoring provisions of 40 CFR 63.453 (equipment numbers HW-PUM2-V037, HW-PSG4-S999, HW-CST1-V001C, 19, 20, and 21) in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored under 40 CFR 63.453(a) through 40 CFR 453(n). Except as provided in 63.453(p), 63.443(e), or 63.446(g) operation of the control device below minimum operating parameter values or above maximum operating parameter values established under 40 CFR 63 Subpart S or failure to perform procedures required by 40 CFR 63 Subpart S shall constitute a violation of the emission standard and be reported as a period of excess emissions.

(9 VAC 5-80-110 and 40 CFR 63.453(o))

III.C.3. All continuous monitoring systems required under Subparts D and BB shall be subject to 40 CFR 60.13 upon promulgation of the performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60. This condition specifically applies to the NO<sub>x</sub> monitor, SO<sub>2</sub> monitor, diluent monitors, and opacity monitor on the coal/bark boiler (HW-PSG2-S022) and the opacity, diluent, and TRS monitors on the recovery furnace (HW-PSG4-S013)

(9 VAC 5-80-110 and 40 CFR 60.13(a))

III.C.4. The permittee shall check the zero (or low level value between 0 and 20 % of span value) and span (50 to 100% of span value) calibration drifts on the continuous monitoring systems of the coal/bark boiler (HW-PSG2-S022) and the recovery furnace (HW-PSG4-S013) at least once daily in accordance with a written procedure. The zero and span shall, as a minimum be adjusted whenever the 24 hour zero drift or 24 hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B of 40 CFR 60. The system must allow the amount of excess zero and span drift measured at the 24 hour interval checks to be recorded and quantified. For continuous monitoring systems

measuring the opacity of emissions from the coal/bark boiler (HW-PSG2-S022) and the recovery furnace (HW-PSG4-S013), the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4% opacity.

(9 VAC 5-80-110 and 40 CFR 60.13(d)(1))

III.C.5. Minimum procedures for continuous monitoring systems measuring opacity of emissions from the coal/bark boiler (HW-PSG2-S022) and the recovery boiler (HW-PSG4-S013) shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

(9 VAC 5-80-110 and 40 CFR 60.13(d)(2))

III.C.6. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required, all continuous monitoring systems on the coal/bark boiler (HW-PSG2-S022) and the recovery furnace (HW-PSG2-013) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

- a. All continuous monitoring systems for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10 second period and one cycle of data recording for each successive 6 minute period.
- b. All continuous monitoring systems for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15 minute period.

(9 VAC 5-80-110 and 40 CFR 60.13(e))

III.C.7. All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of 40 CFR 60 Appendix B of this part shall be used.

(9 VAC 5-80-110 and 40 CFR 60.13(f))

III.C.8. For the continuous emission monitoring systems monitoring the coal/bark boiler (HW-PSG2-S022) and the recovery furnace (HW-PSG4-S013), the permittee shall reduce all data from continuous monitoring systems for measurement of opacity to 6 minute averages and for continuous monitoring system other than opacity to 1 hour averages. Six minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6 minute

period. For continuous monitoring systems other than opacity, 1 hour averages shall be computed from four or more data points equally spaced over each 1 hour period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in 40 CFR 60. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1% opacity).

(9 VAC 5-80-110 and 40 CFR 60.13(h))

### **III.D. Record Keeping**

III.D.1. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance for all equipment emitting air pollutants and all air pollution control equipment;
- b. maintain an inventory of spare parts;
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum;
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training, and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110 and Condition #50 of the June 18, 2009 permit)

III.D.2. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facilities for Subparts D and BB of 40 CFR 60 (equipment numbers HW-PSG2-S022, HW-PSG4-S013, HW-PSG4-S999, and HW-PSG4-S018); any malfunction of the air pollution control equipment (equipment numbers HW-PSG4-CD999, HW-PSG2-S022, HW-PSG4-CD014, HW-PSG4-CD018, and HW-PSG2-CD022), or any periods during which a continuous monitoring system or monitoring device is inoperative.

(9 VAC 5-80-110 and 40 CFR 60.7(b))

III.D.3. When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with

the procedures specified in the affected source's startup, shutdown, and malfunction plan, the permittee shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist or other effective form of record keeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the permittee shall keep records of these events as required in Condition III.D.2, including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction are consistent with the permittee's startup, shutdown and malfunction plan in the semiannual startup shutdown and malfunction report required in Condition III.F.4.

(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(iii))

III.D.4. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports and records.

(9 VAC 5-80-110 and 40 CFR 60.7(f))

III.D.5. The permittee shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be made available for inspection, upon request, by the Director, Piedmont Region for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR 63. In addition, if the startup, shutdown, and malfunction plan is revised, the permittee shall keep previous (i.e. superseded) versions of the startup, shutdown, and malfunction plan on record, to be made available for inspection, upon request, by the Director, Piedmont Region, for a period of 5 years after each revision to the plan.

(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(v))

III.D.6. The permittee shall maintain a file containing all emission factors, rated capacities, and formulas used to show compliance with the limitations listed in Condition III.B.5.

(9 VAC 5-80-110)

### **III.E. Testing**

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Test ports shall be provided at the appropriate locations.

(9 VAC 5-80-110)

### III.F. Reporting

III.F.1. The permittee shall submit excess emissions and monitoring systems performance reports and/or summary report forms to the Director, Piedmont Region, semiannually. All reports shall be postmarked by the 30th day following the end of each six month period. Written reports of excess emissions and summary report forms shall contain the information and be in the format required by 40 CFR 60.7.

(9 VAC 5-80-110 and 40 CFR 60.7)

III.F.2. If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(iv))

III.F.3. The permittee subject to the provisions of 40 CFR 63 shall maintain files of all information (including all reports and notifications) recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. The permittee shall maintain relevant records of:

- a. The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);
- b. The occurrence and duration of each malfunction of the air pollution control equipment;
- c. All maintenance performed on the air pollution control equipment;
- d. Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the startup, shutdown, and malfunction plan required in Condition III.B.6.
- e. All information necessary to demonstrate conformance with the startup, shutdown, and malfunction plan required in Condition III.B.6 when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in the plan. The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be

recorded using a checklist or some other effective form of record keeping, in order to minimize the record keeping burden for conforming events.

- f. Each period during which a continuous monitoring system is malfunctioning or inoperative;
- g. Results of all performance tests, continuous monitoring system evaluations, and opacity and visible emission observations;
- h. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
- i. All continuous monitoring system calibration checks;
- j. All adjustments and maintenance performed on continuous monitoring systems;
- k. All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

(9 VAC 5-80-110 and 40 CFR 63.10(b))

III.F.4. If actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the permittee's startup, shutdown, and malfunction plan, the permittee shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter containing the name, title and signature of the permittee or other responsible office who is certifying its accuracy that shall be submitted to the Director, Piedmont Region semiannually. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half.

(9 VAC 5-80-110 and 40 CFR 63.10(d)(5)(i))

III.F.5. Any time an action taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required here shall consist of a telephone call (or facsimile transmission) to the Director, Piedmont Region within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the permittee or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parametric monitoring exceedances are believed to have occurred.

(9 VAC 5-80-110 and 40 CFR 63.10(d)(5)(ii))

III.F.6. The permittee shall report semiannually the following information:

- a. Periods when the production rate of air dried tons of pulp exceeds the limitation in Condition III.B.1.
- b. Periods when an emissions unit is not in compliance at least 90% of its operating time with any standard.

(9 VAC 5-80-110)

## **IV. Pulp Mill Process Area Applicable Requirements**

### **IV.A. Limitations**

IV.A.1. Visible emissions from the Brown stock washer system (HW-PUM1-A030) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.  
(9 VAC 5-40-80 and 9 VAC 5-80-110)

IV.A.2. The permittee shall not cause or permit to be discharged into the atmosphere from the digester system (HW-PUM2-V037) any total reduced sulfur (TRS) emissions in excess of the following limits: 5 ppm by volume on a dry basis, corrected to 10% O<sub>2</sub>  
(9 VAC 5-40-1690 A.2)

IV.A.3. Achievement of the emission standard listed in Condition IV.A.2 shall be by combustion of gases in a lime kiln subject to 9 VAC Chapter 40, part II, Article 13 (HW-CRP2-S022) or a device which is not subject to the provisions of 9 VAC Chapter 40, Part II, Article 13 and which is subjected to a minimum temperature of 1200° F for at least 0.5 seconds (combination boiler, HW-PSG2-S022).  
(9 VAC 5-40-1690 B, 9 VAC 5-40-1700 1 & 2.)

IV.A.4. The pulping process condensate from the Batch digester systems (HW-PUM2-V037) shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified under 40 CFR 63.446(d)(1) and (2).  
(9 VAC 5-80-110 and 40 CFR 63.446(c))

IV.A.5. The pulping process condensate from the Batch digester systems (HW-PUM2-V037) shall be treated according to one of the options under 40 CFR 63.446(e)(1) through (5).  
(9 VAC 5-80-110 and 40 CFR 63.446(c))

IV.A.6. As an alternative to the requirements specified in §63.443(a)(1)(ii) through (a)(1)(v) for the control of HAP emissions from pulping systems using the kraft process, an owner or operator must demonstrate to the satisfaction of the Administrator, by meeting all the requirements within 40 CFR 63.447, that the total HAP emissions reductions achieved by this clean condensate alternative technology are equal to or greater than the total HAP emission reductions that

would have been achieved by compliance with §63.443(a)(1)(ii) through (a)(1)(v).  
(9 VAC 5-80-110 and 40 CFR 63.447)

IV.A.7. RACT for the weak black liquor filter within the pulp mill area of the Hopewell Mill shall be use of a no-emissions filter. The no-emissions filter shall be designed, installed, operated, and controlled in such a manner as to eliminate emissions.  
(9 VAC 5-80-110 and Section E #3, CA dated 05/30/96, 9 VAC 5-40-300)

IV.A.8. RACT for VOC sources within the pulp mill area of the Hopewell Mill, excepting the weak black liquor filter and the contributors to the non-condensable gas system, shall be no additional controls. The permittee shall continue to operate the pulp mill area in a manner consistent with minimizing VOC emissions to the extent practicable and in a manner consistent with good air pollution control practices.  
(9 VAC 5-80-110 and Section E #4, CA dated 05/30/96, 9 VAC 5-40-300)

## **V. Reausticizing Process Area Applicable Requirements**

### **V.A. Limitations**

V.A.1. Visible emissions from the reausticizing process area (HW-CRP-V999) shall not exceed 20 % opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)

V.A.2. Visible emissions from the lime kiln (HW-CRP2-S022) and the lime storage silo (HW-CRP1-S030) shall not exceed 20% percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity. Failure to meet this requirement because of the presence of water vapor shall not be a violation.  
(9 VAC 5-40-80 and 9 VAC 5-80-110)

V.A.3. Visible emissions from the lime kiln (HW-CRP2-S022) shall comply with the following compliance provisions:

- a. Corrective action, as specified in the startup, shutdown, and malfunction plan shall be implemented when the average of ten consecutive 6-minute averages exceed 20% opacity.
- b. A violation of 40 CFR Subpart MM occurs when opacity is greater than 20% for 6% or more of the operating time within any quarterly period 40 CFR 63.864(j).  
(9 VAC 5-40-110, 40 CFR 63.864(k)(1)(i))

V.A.4. The permittee shall not cause or permit to be discharged into the atmosphere from any group of similar affected facilities specified below any particulate emissions in excess of the following limits:

Lime kiln: 1.00 lbs particulate/equivalent ton of air dried pulp  
 HW-CRP2-S022 0.064 grains/dry standard cubic foot corrected to  
 10% O<sub>2</sub>

Slaker tank units: 0.30 lbs particulate/equivalent ton of air dried pulp  
 HW-CRP1-V016  
 HW-CRP1-V017  
 (9 VAC 5-80-110, 9 VAC 5-40-1680, and 40 CFR 63.862(a))

V.A.5. Emissions from the operation of the lime storage silo (HW-CRP1-S030) shall not exceed the limits specified below:

PM/PM10 44.8 lb/hr 196.4 ton/yr

(9 VAC 5-80-110 and 9 VAC 5-40-260)

V.A.6. To achieve the standards in condition V.A.4, the particulate emissions in the lime kiln exhaust shall be controlled by an electrostatic precipitator and a scrubber. The ESP shall be equipped with a continuous opacity monitoring system. The scrubber shall be equipped with devices to record the flow rate on the low pressure and high pressure liquid flows through the scrubber. The ESP and the scrubber shall be provided with adequate access for inspection.  
 (9 VAC 5-80-110, 9 VAC 5-40-1680, 40 CFR 63.864(d), and 40 CFR 63.864(e))

V.A.7. To achieve the standard of 0.3 lbs particulate/equivalent ton of air dried pulp, the particulate emissions in the slaker tanks exhaust shall be controlled by wet scrubbers, equipment numbers HW-CRP1-CD016 and HW-CRP1-CD017. The scrubbers shall be equipped with devices to record liquid flow rate and devices to continuously measure the liquid supply pressure to the scrubber. The scrubbers shall be provided with adequate access for inspection.  
 (9 VAC 5-80-110 and 9 VAC 5-40-1680)

V.A.8. The permittee shall not cause or permit to be discharged into the atmosphere from any kraft wood pulping operation unit specified below any total reduced sulfur (TRS) emissions in excess of the following limits:

Lime kilns: 20 ppm by volume on a dry basis, corrected to 10% O<sub>2</sub>

(9 VAC 5-80-110 and VAC 5-40-1690 A.4.)

V.A.9. Total reduced sulfur emissions from the lime kiln shall be controlled by process and mechanical methods.  
 (9 VAC 5-80-110)

V.A.10. RACT for the chemical recovery area of the Hopewell Mill is deemed to be no additional controls. The permittee will continue the practice of using

city/river water as the sole source of make-up water in the Chemical Recovery area. Equipment using city/river water make-up consist of the dregs filter and vacuum pump (HW-CRP1-V026), the pad clarifier and u-drains, the lime mud pre coat filter and vacuum pump (HW-CRP1-V023) and the scrubber for the lime kiln (HW-CRP2-S022)..

(9 VAC 5-80-110 and Section E, #2, CA dated 05/30/96, 9 VAC 5-40-300)

## **V.B. Monitoring**

V.B.1. The permittee shall install, certify, maintain, and operate continuous monitoring equipment to monitor and record the concentration of TRS emissions on a dry basis and the percentage of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the lime kiln (HW-CRP2-S022). The location of each monitoring system must be approved by the board.  
(9 VAC 5-80-110 and 9 VAC5-40-1770 B 1)

V.B.2. The permittee shall install, calibrate, maintain, and operate a monitoring device which measures the combustion temperature at the point of incineration of effluent gases which are emitted from the lime kiln (HW-CRP2-S022). The monitoring device is to be certified by the manufacturer to be accurate within 1.0% of the temperature being measured.  
(9 VAC 5-80-110 and 9 VAC5-40-1770 B 2)

V.B.3. The permittee shall develop and implement a quality assurance plan. At a minimum the plan shall provide for daily calibration drift checks, periodic preventive maintenance, and annual audits. Section 3 of Procedure 1 of Appendix F of 40 CFR 60 may be used as a guide by which to pattern the plan.  
(9 VAC 5-80-110 and 9 VAC 5-40-1780 D)

V.B.4. The minimum data capture and validity requirements for the TRS monitor on the lime kiln (HW-CRP2-S022) shall be as follows:

- a. Valid TRS and O<sub>2</sub> data shall be obtained for no less than 75% of the operating hours of each quarter. Section 4 of Procedure 1 of Appendix F of 40 CFR 60 shall be used to determine valid data.
- b. For TRS or O<sub>2</sub> concentrations, a valid data hour shall have at least 50% valid readings.
- c. A 24 hour average TRS or oxygen concentration shall be considered valid if at least 50% of the operating hours in the 24 hour period are valid data hours.
- d. Valid temperature data shall be obtained for no less than 90% of the operating time of each quarter.

(9 VAC 5-80-110 and 9 VAC 5-40-1770 C)

V.B.5. The owner or operator of a lime kiln equipped with an ESP must install, calibrate, maintain, and operate a continuous opacity monitoring system except

during periods of startup, shutdown, and malfunction. The COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. (9 VAC 5-80-110 and 40 CFR 63.864(d))

V.B.6. Visible emissions observations shall be conducted for the recausticizing process area (HW-CRP-V999) and the lime storage silo (HW-CRP1-S030) at least monthly during periods of normal facility operation for a sufficient time interval to determine if there are any above normal visible emissions. If above normal visible emissions are observed, a visible emissions evaluation (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9 shall be conducted. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the applicable opacity limit, the observation period shall continue until a total of sixty minutes of observation has been completed. A Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner such that no above normal visible emissions are present; the emissions unit is operating at normal operating conditions; and the cause and corrective measures taken are recorded. (9 VAC 5-80-110)

V.B.7. The permittee shall monitor and record the liquid supply pressure and the liquid flow rate of the scrubber controlling the slaker tanks and the liquid flow rate of the scrubber controlling the lime kiln once per shift. Corrective action shall be implemented when any 3-hour average parameter value is outside the range of values approved by DEQ that are established from past test data. (9 VAC 5-80-110)

### **V.C. Record Keeping**

V.C.1. The permittee shall calculate and record on a daily basis the 24-hour average TRS concentration for each operating day for the lime kiln. Each 24 hour average shall be determined as the arithmetic mean of the appropriate 24 contiguous 1 hour average TRS concentrations provided by the continuous monitoring system installed under 9 VAC 5-40-1770 B 1 (Lime kiln monitoring system) and Condition V.B.1 (9 VAC 5-80-110 and 9 VAC 5-40-1780 B 1)

V.C.2. The permittee shall calculate and record on a daily basis the 24-hour average O<sub>2</sub> concentration for each operating day for the lime kiln (HW-CRP2-S022). These 24-hour averages shall correspond to the 24 hour average TRS concentration required under Condition V.C.1 and shall be determined as an arithmetic mean of the appropriate 24 contiguous one hour average oxygen concentrations provided by the continuous monitoring system installed on the lime kiln. (9 VAC 5-80-110 and 9 VAC 5-40-1780 B 2)

- V.C.3. The permittee shall correct all 24-hour average TRS concentrations to 10 volume percent oxygen.  
(9 VAC 5-80-110 and 9 VAC 5-40-1780 B 3)
- V.C.4. The permittee shall record continuously on a daily basis the temperature of the point of incineration as well as the periods of operation for each operating day for the lime kiln. The temperature monitoring device interlock that is part of the non-condensable gas safety system on the lime kiln shall be used to comply with this requirement.  
(9 VAC 5-80-110 and 9 VAC 5-40-1780 B 4 & 5)
- V.C.5. The permittee shall maintain records of any occurrence when corrective action is required and when a violation as noted in Condition V.A.3.  
(9 VAC 5-80-110 and 40 CFR 63.866(b))
- V.C.6. The owner or operator must maintain records of the information in 40 CFR 63.866(c) (1 through 7) in addition to the general records required by 40 CFR 63.10(b)(2)  
(9 VAC 5-80-110 and 40 CFR 63.866(c))
- V.C.7. The permittee shall keep on hand a copy of the most recent compliance tests showing compliance with the particulate emissions limitations on the lime kiln (HW-CRP2-S022) and the slaker tanks (HW-CRP1-V016, HW-CRP1-V017).  
(9 VAC 5-80-110 B and 9 VAC 5-80-110 F)

#### **V.D. Testing**

- V.D.1. A visible emissions evaluation shall be conducted by the permittee on the lime storage silo (HW-CRP1-S030) in accordance with 40 CFR Part 60, Appendix A, Method 9. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed, reported, and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Piedmont Region shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. Two copies of the test results shall be submitted to the Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110 and 9 VAC 5-40-20)
- V.D.2. Once during every five year permit term, the facility shall conduct performance tests for particulate matter from the exhausts of the scrubbers controlling the lime kiln (HW-CRP2-S022) and the slaker tanks (HW-CRP1-

V016, HW-CRP1-V017) to determine compliance with the emission limitations listed in Condition V.A.4 of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110 B)

## **V.E. Reporting**

V.E.1. The permittee shall report semi annually all 24 hour average TRS concentrations above 20 ppm by volume on a dry basis, corrected to 10% O<sub>2</sub> of the lime kiln (HW-CRP2-S022) and the periods of operation.  
(9 VAC 5-80-110 and 9 VAC 5-40-1780 C 2 and 4)

V.E.2. The owner or operator must report quarterly the number and duration of occurrences when the source met or exceeded the average of ten consecutive 6-minute averages resulting in a measurement greater than 20 percent opacity associated with the ESP.  
(9 VAC 5-80-110 and 40 CFR 63.867(c))

V.E.3. The permittee shall report semi annually all measurements taken from the liquid flow meters associated with the lime kiln (HW-CRP2-S022) scrubber and the liquid flow meters and liquid supply pressure devices associated with the slaker tank scrubbers (HW-CRP1-V016, HW-CRP1-V017) that are excursions as well as all actions taken to rectify the excursion.  
(9 VAC 5-80-110)

## **VI. Chemical Recovery Process Area Applicable Requirements**

### **VI.A. Limitations**

VI.A.1. Visible emissions from the black liquor storage tanks (HW-PSG4-V999) constructed, modified, or relocated prior to March 17, 1972 or reconstructed prior to December 10, 1976 (HW-PSG4-V999) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.  
(9 VAC 5-40-80 and 9 VAC 5-80-110)

VI.A.2. Visible emissions from the black liquor storage tanks (HW-PSG4-V999) constructed modified, or relocated on or after March 17, 1972 or reconstructed on or after December 10, 1976 (HW-PSG4-V998), heavy black liquor storage tanks (HW-PSG4-V027), soap skimmer (HW-PSG4-S999B), and cooling tower (18) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)

VI.A.3. RACT for the VOC sources within the non-condensable gas system shall be thermal oxidation. This thermal destruction of VOCs shall be accomplished by venting the non condensable gases to the lime kiln while the lime kiln is operating normally as defined within VI.A.18. The lime kiln (HW-CRP2-S022) shall be operated and the non-condensable gases shall be vented in a manner consistent with the requirements of 9 VAC 5-20-180 of the State Regulations for the Control and Abatement of Air Pollution. The permittee shall continue to operate the lime kiln (HW-CRP2-S022) and the non-condensable gas system in a manner consistent with minimizing VOC emissions to the extent practicable and in a manner consistent with good air pollution control practices.

(9 VAC 5-80-110 and Section E, #6, CA dated 5/30/96, 9 VAC 5-40-300)

VI.A.4. The following emissions are estimated from the operation of the soap skimmer:

Volatile Organic Compounds	0.10 lbs/hr
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Total Reduced Sulfur	0.09 lbs/hr
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(9 VAC 5-80-110, 9 VAC 5-50-260, and condition #19 of the June 18, 2009 permit)

VI.A.5. The approved fuel for the black liquor recovery furnace (HW-PSG4-S013) is black liquor solids and black liquor solids blended with ultra low sulfur diesel (ULSD). A change in fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and condition #22 of the June 18, 2009 permit)

VI.A.6. The permittee may blend ULSD fuel oil with the black liquor prior to combustion in the black liquor recovery furnace. The annual fossil fuel capacity factor, including the ULSD oil continuously blended with the black liquor prior to combustion, shall not exceed 10 percent.  
(9 VAC 5-80-110 and condition #23 of the June 18, 2009 permit)

VI.A.7. The permittee shall not cause to be discharged into the atmosphere from the multiple effect evaporator system (HW-PSG4-S999A) any gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 10% oxygen, unless the gases are combusted with other waste gases in the coal/bark boiler (HW-PSG2-S022/S006) or the lime kiln (HW-CRP2-S022), which is not subject to 40 CFR 60 Subpart BB, and are subjected to a minimum temperature of 1200 °F for at least 0.5 seconds.  
(9 VAC 5-80-110 and 40 CFR 60.283(a))

VI.A.8. Particulate emissions from the black liquor recovery furnace (HW-PSG4-S013) shall be controlled by an electrostatic precipitator with a design control efficiency of 99.7%. The electrostatic precipitator shall be oversized to permit a more stable and efficient operation. The electrostatic precipitator shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-280, #5 of the June 18, 2009 permit)

- VI.A.9. Sulfur dioxide emissions from the black liquor recovery furnace (HW-PSG4-S013) shall be controlled by limiting sulfidity during process operations. (9 VAC 5-80-110, 9 VAC 5-50-280, #6 of the June 18, 2009 permit)
- VI.A.10. Total reduced sulfur emissions from the black liquor recovery furnace (HW-PSG4-S013) shall be controlled by process and mechanical methods including indirect heating of the black liquor being fired in the furnace and combustion air control. (9 VAC 5-80-110, 9 VAC 5-50-280, #7 of the June 18, 2009 permit)
- VI.A.11. The black liquor fired in the recovery furnace (HW-PSG4-S013) shall contain no more than 70.2% by weight virgin black liquor solids, calculated as the arithmetic average of all furnace operating days in the previous 365 day period. For each day that liquor is fired, the percent by weight of virgin black liquor solids shall be measured at the exit of the indirect contact liquor heater, and this number shall be included in the calculation to determine the average weight percent of virgin black liquor solids in the liquor. The permittee shall maintain records of the daily virgin black liquor solids content averages for the period up to the end of the previous calendar week. (9 VAC 5-80-110 and 9 VAC 5-170-160, #26 of the June 18, 2009 permit)
- VI.A.12. Emissions from the operation of the black liquor recovery furnace (HW-PSG4-S013) shall not exceed the limitations specified below:
- Particulate emissions as determined by Reference Method 5:  
0.044 grains/dry standard cubic foot corrected to 8% O<sub>2</sub>  
68.7 lbs/hr
- Sulfur Dioxide as determined by Reference Method 6 or alternative method approved by DEQ:  
250 ppm by volume  
632.0 lbs/hour
- Total Reduced Sulfur as determined by Reference Method 16, Method 16A, or Method 16B:  
5 ppm by volume on a dry basis corrected to 8% O<sub>2</sub>  
4.8 lbs/hr
- (9 VAC 5-80-110 and 40 CFR 60.282(a), 40 CFR 60.283(a), 9 VAC 5-50-40, 9 VAC 5-50-280, #16 of the June 18, 2009 permit)
- VI.A.13. Visible emissions from the black liquor recovery furnace (HW-PSG4-S013) shall comply with the following compliance provisions: Corrective action, as specified in the startup, shutdown, and malfunction plan shall be implemented when the average of ten consecutive 6-minute averages exceeds 20% opacity. (9 VAC 5-40-110, 40 CFR 63.864(k)(1)(i))

VI.A.14. Particulate emissions from the smelt dissolving tank (HW-PSG4-S018) shall be controlled by a wet scrubber (HD-PSG4-CD018) with a design control efficiency of 97.7%. The scrubbing liquor shall be weak wash liquor or, if necessary, clean fresh water. The scrubber shall be provided with adequate access for inspection.

(9 VAC 5-80-110 and 9 VAC 5-50-260, #8 of the June 18, 2009 permit)

VI.A.15. Total reduced sulfur emissions from the smelt dissolving tank (HW-PSG4-S018) shall be controlled by a wet scrubber (HD-PSG4-CD018). The scrubbing liquid shall be weak wash liquor or, if necessary, clean fresh water shall be used to control the total reduced sulfur. The scrubber shall be provided with adequate access for inspection.

(9 VAC 5-80-110 and 9 VAC 5-50-260, #9 of the June 18, 2009 permit)

VI.A.16. Emission from the operation of the smelt dissolving tank (HW-PSG4-S018) shall not exceed the limitations specified below:

Particulate emissions as determined by Reference Method 5:

0.2 lbs/ton of dry black liquor solids

12.5 lbs/hour

Total reduced sulfur as determined by Reference Method 16, Method 16A, or Method 16B:

0.0168 lbs/ton of dry black liquor solids

1.1 lbs/hour

(9 VAC 5-80-110, 40 CFR 60.282(a)(2), 9 VAC 5-50-260, and #17 of the June 18, 2009 permit)

VI.A.17. Visible emissions from the smelt dissolving tank (HW-PSG4-S018) shall comply with the following compliance provisions:

- a. Corrective action, as specified in the startup, shutdown, and malfunction plan shall be implemented when any 3-hour average parameter value is outside the range of values established in 40 CFR 63.864(j).
- b. A violation of 40 CFR Subpart MM occurs when six or more 3-hour average parameter values within any 6-month reporting period are outside the range of values established in 40 CFR 63.864(j).

(9 VAC 5-40-110, 40 CFR 63.864(k)(1)(ii), and 40 CFR 63.864(k)(2)(iii))

VI.A.18. Volatile organic compound, hazardous air pollutants, and total reduced sulfur emissions from the non-condensable gases emitted from the following equipment shall be captured and vented into a closed-vent system. These gases shall be controlled by thermal oxidation at a minimum of 1400°F in the lime kiln.

- a. Multiple effect evaporator and crystallizer concentrator system

- b. Turpentine decanter vent
- c. Turpentine storage tank vent
- d. UNOX feed tank vent
- e. Blow heat accumulator secondary condenser vent

The non-condensable gas thermal oxidation system shall be equipped with an interlock system to prevent non-condensable gas thermal oxidation in the lime kiln when the lime kiln temperature is less than 1400°F. In the event that the lime kiln temperature drops below 1400°F or is not operating normally, the non-condensable gases shall be controlled by thermal oxidation in the coal/bark boiler at a minimum of 1400°F. In the event that the white liquor sulfidity of the mill is greater than 30% and cannot be lowered by the addition of make up chemicals, the facility may elect to thermally oxidize the non-condensable gases in the coal/bark boiler. Immediately upon achieving a white liquor sulfidity of less than or equal to 30%, the facility will initiate use of the lime kiln if the lime kiln is operating normally. The facility shall not exceed 876 hours of non-condensable gas thermal oxidation in the coal/bark boiler, calculated monthly as the sum of the previous 12-month period.

The thermal destruction efficiency for volatile organic compounds shall be at least 98% by weight. The thermal destruction efficiency for hazardous air pollutants shall be at least 98% by weight. The thermal destruction efficiency for total reduced sulfur compounds shall be at least 99% by weight. Compliance with the temperature requirements shall be indicative of compliance with the thermal destruction efficiencies. The non-condensable gases shall be introduced into the lime kiln or coal/bark boiler with the primary fuel or into the flame zone. The non condensable gas system shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-90, 40 CFR 63.443(d), and #10 of the June 18, 2009 permit)

- VI.A.19. The permittee shall maintain negative pressure at each enclosure or hood opening. Each component of the closed vent system that is operated at positive pressure and located prior to the lime kiln (HW-CRP2-S022) or the coal/bark boiler (HW-PSG2-S022) shall be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 ppm by volume above background as described in 40 CFR 63.457(d).  
(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-90, 40 CFR 63.450(b), 40 CFR 63.450(c), and #11 of the June 18, 2009 permit)

- VI.A.20. Condensate from the following equipment shall be hard piped to a discharge point below the liquid surface of a biological treatment system that shall reduce or destroy the total Hazardous Air Pollutants by at least 92% by weight. The Hopewell Wastewater Treatment Facility, which is the existing industrial treatment plant for the permittee, is required to meet the 92% by weight reduction standard as specified in 40 CFR 63.1583(a).

- a. Segregated foul condensate from the multiple effect evaporator system and crystallizer concentrator.
- b. Low volume, high concentration non-condensable gas system drain.
- c. Turpentine decanter and turpentine storage tank underflow.
- d. Blow heat accumulator secondary condenser condensate.
- e. Blow heat accumulator primary condenser condensate

For the purposes of testing to show total HAP emission reductions from the use of the clean condensate alternative as specified in 40 CFR 63.447, the permittee may use the primary condenser condensate from the blow heat accumulator in the brown stock washers. Otherwise the brown stock washers shall use only clean fresh water, and the blow heat accumulator primary condenser condensate shall be controlled by being hard piped to a discharge point below the liquid surface of a biological treatment system that shall reduce or destroy the total Hazardous Air Pollutants by at least 92% by weight.

The UNOX feed tank's fixed roof and all other openings shall be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume of methanol above background, and vented into a closed vent system which exhausts to the non-condensable gas control system. Each opening on the UNOX feed tank shall be maintained in a closed, sealed position (e.g. covered by a lid that is gasketed and latched) at all times that the tank contains pulping process condensates or any HAP removed from a pulping process condensate stream except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair (9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-60-90, 40 CFR 63.446e, #12 of the June 18, 2009 permit)

- VI.A.21. On each bypass line in the closed-vent system, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line.  
(9 VAC 5-80-110 and 9 VAC 5-60-90, 40 CFR 63.450(d)(1), #13 of the June 18, 2009 permit)

- VI.A.22. Emissions from the operation of the multiple effect evaporator system and crystallizer concentrator system shall not exceed the limitations specified below:

VOCs as determined by Reference Method 25 or alternative method approved by DEQ:

0.8 lbs/bone dry ton of pulp  
0.8 lbs/hour

(9 VAC 5-80-110 and 9 VAC 5-50-260, #18 of the June 18, 2009 permit)

## **VI.B. Monitoring**

VI.B.1. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the opacity of the gases discharged to the atmosphere from the recovery furnace (HW-PSG4-S013). The span of this system shall be set at 70% opacity.

(9 VAC 5-80-110 and 40 CFR 60.284(a)(1), #28 of the June 18, 2009 permit)

VI.B.2. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the recovery furnace (HW-PSG4-S013). These systems shall be located downstream of the control devices and the spans of these continuous monitoring systems shall be set:

At a TRS concentration of 30 ppm for the TRS continuous monitoring system;  
At 25% oxygen for the continuous oxygen monitoring system.

(9 VAC 5-80-110 and 40 CFR 60.284(a)(2), #28 of the June 18, 2009 permit)

VI.B.3. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the MEEV (HW-PSG4-S999A), except where the provisions of §60.283(a)(1)(iii) or (iv) apply. These systems shall be located downstream of the control devices and the spans of these continuous monitoring systems shall be set:

At a TRS concentration of 30 ppm for the TRS continuous monitoring system;  
At 25% oxygen for the continuous oxygen monitoring system.

(9 VAC 5-80-110 and 40 CFR 60.284(a)(2))

VI.B.4. The owner or operator of a smelt dissolving tank equipped with a wet scrubber must install, calibrate, maintain, and operate a CPMS that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in 63.8(c), as well as the following:

- a. The monitoring device must be certified by the manufacturer to be accurate to within a gage pressure of  $\pm 2$  inches of water gage pressure; and
- b. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 5\%$  of the design scrubbing liquid flow rate.
- c. The monitoring device must be certified by the manufacturer to be accurate to within  $\pm 15\%$  of design scrubbing liquid supply pressure.

(9 VAC 5-80-110, 40 CFR 60.284(b)(2)(ii) and 40 CFR 63.864(e.10.i and ii))

VI.B.5. The following monitoring shall be used for the scrubber (HW-PSG4-CD018) controlling the emissions from the smelt dissolving tank to demonstrate compliance with the particulate emission limitations of condition VI.A.16 and the visible emission limitations of condition VI.A.17. Scrubber ID fan operation shall be verified via a gas differential pressure greater than 1 inch of water column on a 3-hour average basis. The smelt dissolving tank shall be deemed to be operating within compliance if, while the ID fan is operating, the 3-hour average scrubbing liquid flow rate remains within a range of 375 to 445.5 gpm and the 3 hour average scrubbing liquid supply pressure remains below 25 psig. These devices shall be calibrated and maintained according to manufacturer's specifications and comply with the applicable monitoring and record keeping requirements of 40 CFR 63.864 through 63.867.  
(9 VAC 5-80-110 and 40 CFR 63.8(f))

VI.B.6. The permittee shall install, calibrate, maintain, and operate a continuous monitoring device that measures and displays the thermal oxidation temperature of the non-condensable gases. This monitoring device shall be installed at the point of thermal oxidation on the lime kiln. The temperature monitoring device that is part of the non-condensable gas safety system on the lime kiln may be used to comply with this requirement.  
(9 VAC 5-80-110, 9 VAC 5-40-1770 B 2, and #33 of the June 18, 2009 permit)

VI.B.7. For each enclosure opening, the permittee shall perform a visual inspection of the closure mechanism at least once every 30 days to ensure the opening is maintained in the closed position and sealed. Each closed vent system shall be visually inspected every 30 days and at other times as requested by the Director, Piedmont Regional Office. The visual inspection shall include inspection of the duct work, piping, enclosures, and connections to covers for visible evidence of defects.  
(9 VAC 5-80-110 and 9 VAC 5-60-90, #34 of the June 18, 2009 permit, 40 CFR 63.453(k)(1) & (2))

VI.B.8. For each enclosure opening, the permittee shall demonstrate initially and annually that each enclosure opening is maintained at negative pressure using one of the following procedures:

- a. An anemometer to demonstrate flow into the enclosure opening;
- b. Measure the static pressure across the opening;
- c. Smoke tubes to demonstrate flow into the enclosure opening; or
- d. Any other industrial ventilation test method demonstrated to the satisfaction of the Director, Piedmont Region.

(9 VAC 5-80-110 and 9 VAC 5-60-90, #35 of the June 18, 2009 permit, 40 CFR 63.453(k)(4), 40 CFR 63.457(e))

VI.B.9. For positive pressure closed vent systems or portions of closed vent systems, the permittee shall demonstrate no detectable leaks initially and annually using Method 21. The instrument specified in Method 21 shall be calibrated before use according to the procedures specified in Method 21 on each day that leak checks are performed. The following calibration gases shall be used: zero air (less than 10 ppm by volume of hydrocarbon in air) and a mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 parts ppm by volume methane or n-hexane.  
(9 VAC 5-80-110 and 9 VAC 5-60-90, #36 of the June 18, 2009 permit, 40 CFR 63.450(c), 40 CFR 63.453(k)(3), 40 CFR 63.457(d))

VI.B.10. If a manual seal is used to comply with 40 CFR 63.450(d)(2), the permittee shall inspect at least once every 30 days the bypass valve or closure mechanism required to ensure that the bypass valve is maintained in the closed position and the multiple effect evaporator and crystallizer concentrator system's gas stream is not diverted from the required control equipment.  
(9 VAC 5-80-110 and 9 VAC 5-60-90, #37 of the June 18, 2009 permit, 40 CFR 63.453(k)(5))

VI.B.11. If any inspection identifies visible defects in duct work, piping, enclosures or connections to covers, or if an instrument reading of 500 ppm by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable. For purposes of this condition, defects are described in 40 CFR 63.964.

- a. A first effort to repair or correct the closed vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.
- b. The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified.

(9 VAC 5-80-110 and 9 VAC 5-60-90, #38 of the June 18, 2009 permit, 40 CFR 63.453(k)(6))

VI.B.12. The permittee shall inspect the individual drain system every 30 days in accordance with the following requirements:

- a. When the drain is using a water seal to control air emissions, the permittee shall verify appropriate liquid levels are being maintained and identify any other defects that could reduce water seal control effectiveness.
- b. When the drain is using a closure device to control air emissions, the permittee shall visually inspect each drain to verify that the closure device is in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken cracked or otherwise damaged seals or gaskets on closure devices; and broken or missing plugs, caps, or other closure devices.
- c. The permittee shall visually inspect each junction box to verify that closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken,

cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps or other closure devices.

- d. The permittee shall visually inspect the unburied portion of each sewer line to verify that all closure devices are in place and there are not defects. Defects include, but are not limited to, visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.
- e. The permittee shall perform the inspections initially at the time of installation of the water seals and closure devices for the individual drain system and, thereafter, at least every 30 days.

(9 VAC 5-80-110 and 9 VAC 5-60-90, #39 of the June 18, 2009 permit, 40 CFR 63.453(l)(1), 40 CFR 63.964(a)(1))

VI.B.13. For any defect of the drain system the permittee shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 15 calendar days after detection. Repair of a defect may be delayed beyond 15 calendar days if the permittee determines that repair of the defect requires emptying or temporary removal from service of the individual drain system and no alternative capacity is available at the facility site to accept the wastewater normally managed in the individual drain system. In this case the permittee shall repair the defect at the next time the process or unit that is generating the wastewater managed in the individual drain system stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(9 VAC 5-80-110 and 9 VAC 5-60-90, #40 of the June 18, 2009 permit, 40 CFR 63.453(l)(1), 40 CFR 63.964(b)(1)&(2))

VI.B.14. Visible emissions observations shall be conducted for the cooling tower (18) at least monthly during periods of normal facility operation for a sufficient time interval to determine if there are any above normal visible emissions. If above normal visible emissions are observed, a visible emissions evaluation (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9 shall be conducted. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the applicable opacity limit, the observation period shall continue until a total of sixty minutes of observation has been completed. A Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner such that no above normal visible emissions are present; the emissions unit is operating at normal operating conditions; and the cause and corrective measures taken are recorded.

(9 VAC 5-80-110)

### **VI.C. Record Keeping**

VI.C.1. The permittee shall calculate and record on a daily basis 12-hour average TRS concentrations of emissions from the recovery furnace (HW-PSG4-S013) for the two consecutive periods of each operating day. Each 12-hour average shall

be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by the continuous monitoring system. The permittee shall also calculate and record on a daily basis 12-hour average oxygen concentrations for the two consecutive periods of each operating day for the recovery furnace. These 12-hour averages shall correspond to the 12-hour average TRS concentrations and shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by the continuous monitoring system. The permittee shall correct all 12-hour average TRS concentrations to 8 volume percent oxygen using the following equation:

$$C_{\text{corr}} = C_{\text{meas}} \times \left[ 21 - \left( \frac{X}{21 - Y} \right) \right]$$

where:  $C_{\text{corr}}$  = the concentration corrected for oxygen

$C_{\text{meas}}$  = the concentration uncorrected for oxygen

X = 8% for the recovery furnace

Y = the measured 12-hour average volumetric O<sub>2</sub> concentration

(9 VAC 5-80-110 and 40 CFR 60.284(c))

VI.C.2. Periods of excess emissions shall not be considered a violation of the standards in 40 CFR 63 Subpart S provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi annual reporting period does not exceed 1%. (9 VAC 5-80-110 and 9 VAC 5-60-90, #29 of the June 18, 2009 permit, 40 CFR 63.443(e)(1))

VI.C.3. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with the June 18, 2009 permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

- a. The yearly production of air dried tons of pulp, calculated monthly as the sum of each consecutive 12-month period.
- b. The average annual virgin black liquor solids content of the black liquor fired in the recovery furnace (HW-PSG4-S013) in weight percent, calculated daily for the period up to the end of the previous calendar week.
- c. The annual amount of fuel oil fired in the black liquor recovery boiler, as percent of the maximum heat input capacity of the unit. This shall be calculated monthly by dividing the heat input derived from the fuel oil (including the ULSD blended with the black liquor) over the previous 12 months by the total aggregate annual heat input capacity for the unit from all fuels and multiplying by 100.
- d. The number, duration, and date of excess emissions from the multiple effect evaporator and crystallizer concentrator system.
- e. The records of measurements obtained from the flow indicator on the NCG bypass line.

- f. Supplier fuel analysis of all coal shipments purchased.
- g. Time, date, and duration of periods when non-condensable gases were vented to the atmosphere.
- h. Time, date, and duration of periods when non-condensable gases were thermally oxidized in the coal/bark boiler.
- i. Monthly calculations showing compliance with the annual hours of operation limitation for incineration of the non-condensable gases in the coal/bark boiler as listed in Condition VI.A.18.
- j. Quantitative information concerning the operational status of the lime kiln corresponding to periods when non-condensable gases were thermally oxidized in the coal/bark boiler or vented to the atmosphere. This information may include, but is not limited to, parameters such as white liquor sulfidity, white liquor clarity, lime availability, lime kiln excess air oxygen content, temperature of the lime kiln, or other data showing that the lime kiln was not operating normally.
- k. Most recent test data that verify the emission factors used to calculate compliance with the emission limitations of condition IX.A.7.
- l. Emission factor and formula used for calculation of MEEV (HW-PSG4-S999A) VOC emissions
- m. Emission factors, equations, and equipment ratings used for calculation of soap skimmer (HW-PSG4-S999B) VOC and TRS emissions
- n. Emission factor, formula used, and Total Dissolved Solids (TDS) content of city water used in the calculation of PT and PM10 from the cooling tower (18).

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and 9 VAC 5-50-50, #43 of the June 18, 2009 permit)

VI.C.4. For each enclosure opening, closed vent system, and closed collection system,

- a. the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of the following equipment and systems:
  - (i) Multiple effect evaporator and crystallizer concentrator system
  - (ii) Turpentine decanter
  - (iii) Turpentine storage tank
  - (iv) UNOX feed tank
  - (v) Blow heat accumulator primary and secondary condenser
  - (vi) NCG system drain
- b. The permittee shall record the following information for each inspection:
  - (i) Date of inspection;
  - (ii) The equipment type and identification;
  - (iii) Results of negative pressure tests for enclosures;
  - (iv) Results of leak detection tests;

- (v) Nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);
- (vi) Date the defect or leak was detected and the date of each attempt to repair the defect or leak as well as location of each defect or leak;
- (vii) Repair methods applied in each attempt to repair the defect or leak;
- (viii) Reason for the delay if the defect or leak is not repaired within 15 days after discovery;
- (ix) Expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- (x) Date of the successful repair of the defect or leak;
- (xi) The position and duration of opening of bypass line valves and the condition of any valve seals; and
- (xii) The duration of the use of bypass valves on computer controlled valves.

(9 VAC 5-80-110 and #44 of the June 18, 2009 permit, 40 CFR 63.454(b))

VI.C.5. The startup, shutdown, and malfunction plan for the recovery furnace and the smelt dissolving tank must include the requirements in 40 CFR 63.866(a)(1) and (2) in addition to the information required under 40 CFR 63.6(e).

(9 VAC 5-80-110 and 40 CFR 63.866(a))

VI.C.6. The permittee shall maintain records of any occurrence when corrective action is required and when a violation as noted in Condition VI.A.13 and VI.A.17.

(9 VAC 5-80-110 and 40 CFR 63.866(b))

VI.C.7. The owner or operator must maintain records of the information in 40 CFR 63.866(c)(1 through 7) in addition to the general records required by 40 CFR 63.10(b)(2)

(9 VAC 5-80-110 and 40 CFR 83.866(c))

#### **VI.D. Testing**

VI.D.1. Once per permit term the facility shall conduct performance tests for particulate matter, sulfur dioxide, and total reduced sulfur from the exhaust of the recovery furnace to determine compliance with all emission limitations listed in Condition VI.A.12. Tests shall be conducted at no less than 80% of the maximum rated capacity of the recovery furnace. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

VI.D.2. Once per permit term the facility shall conduct performance tests for particulate matter and TRS from the exhaust of the scrubber controlling the smelt

dissolving tank to determine compliance with all emission limitations listed in Condition VI.A.16. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. Test reports shall contain readings taken every five minutes during each test run from all gauges associated with the scrubber. The test report shall also contain the average measurement for each gauge during each test that shows compliance with the standards. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-80-110)

## **VI.E. Reporting**

VI.E.1. The owner or operator must report quarterly the number and duration of occurrences when the source met or exceeded the average of ten consecutive 6-minute averages resulting in a measurement greater than 20% opacity associated with the ESP or when any 3-hour average parameter value is outside the range of values established in 40 CFR 63.864(j). (9 VAC 5-80-110 and 40 CFR 63.867(c))

VI.E.2. The permittee shall report semiannually periods of excess emissions from the recovery furnace. Excess emissions shall be all 12-hour averages of TRS concentrations above 5 ppm by volume and opacities as defined in Condition VI.A.13. The Administrator will not consider periods of excess emissions to be violations of 40 CFR 60.11(d) "Compliance with standards and maintenance requirements" provided that the percent of the total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the facility is not operating) during which excess emissions occur does not exceed 1% for TRS emissions and 6% for average opacity emissions. (9 VAC 5-80-110 and 40 CFR 60.284(e), #28 and #29 of the June 18, 2009 permit and Condition III.F.1)

VI.E.3. The permittee shall submit an excess emissions report for each semi-annual period for the bypass line monitoring device required in Condition VI.A.21. The report shall be postmarked by the 30th day following the end of each semi-annual period. (9 VAC 5-80-110 and 40 CFR 63.10(d)(5)(i) and 40 CFR 60.10(e)(3))

VI.E.4. The permittee shall submit an excess emissions report for each calendar quarter for the scrubber monitoring devices required in Condition VI.B.5. The report shall be postmarked by the 30th day following the end of each calendar quarter. When no exceedances of parameters have occurred, a semi-annual report stating that no excess emissions occurred during the reporting period may be submitted. The semi-annual report may be submitted in conjunction with the report required by Condition VI.E.3.

(9 VAC 5-80-110 and 40 CFR 63.867(c))

## **VII. Co-Product Recovery Process Area Applicable Requirements**

### **VII.A. Limitations**

VII.A.1. Visible emissions from the tall oil batch reactor (HW-CT01-V009) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity.

(9 VAC 5-40-80 and 9 VAC 5-80-110)

VII.A.2. RACT for the co-product recovery area with the exception of the tall oil batch reactor vent shall be no additional controls. The permittee shall continue to operate the co-product recovery area in a manner consistent with minimizing VOC emissions to the extent practicable and in a manner consistent with good air pollution control practices.

(9 VAC 5-80-110 and Section E, #7, CA dated 05/30/1996)

VII.A.3. RACT for the tall oil batch reactor vent (HW-CT01-V009) within the co-product recovery area within the Hopewell Mill shall be a packed tower scrubber (HW-CT01-CD009). The VOC removal efficiency of the scrubber shall be 15%.

(9 VAC 5-80-110 and Section E, #8, CA dated 05/30/1996)

VII.A.4. The total HAP emissions from the turpentine recovery system (HW-CST1-V001A and V001B) shall be controlled. The equipment shall be enclosed and vented into a closed-vent system and routed to the combination boiler or the lime kiln. The HAP emission stream shall be introduced with the primary fuel or into the flame zone.

(9 VAC 5-80-110 and 40 CFR 63.443(a)(i), 40 CFR 63.443(c), 40 CFR 63.443(d)(4))

VII.A.5. The pulping process condensates from the turpentine recovery system shall be conveyed in a closed collection system and treated by discharging the pulping process condensate below the liquid surface of a biological treatment system that shall reduce or destroy the total HAPs by at least 92% or more by weight.

(9 VAC 5-80-110 and 40 CFR 63.446(d), 40 CFR 53.446(e)(2)&(3))

VII.A.6. The fixed roof and all openings (e.g., access hatches, sampling ports, gauge wells) of the condensate tank used in the closed collection system shall be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million above background, and vented into a closed-vent system that meets the requirements in 63.450 and shall be routed to the combination boiler or lime kiln, where the HAP emission stream shall be introduced with the primary fuel or into the flame zone.

(9 VAC 5-80-110 and 40 CFR 63.446(d)(2), 40 CFR 63.443(d))

**VII.B. Monitoring**

The scrubber (HW-CT01-CD009) controlling the tall oil batch reactor (HW-CT01-V009) shall operate with a minimum pressure differential as determined during performance testing. The scrubber differential pressure (gas pressure difference between scrubber inlet and outlet) shall be continuously recorded. The permittee shall keep records and provide an explanation when the average pressure differential varies from the optimum operating pressure differential by more than 2 psig, established during the most recent performance test that demonstrated compliance, for a period of time in excess of 5 minutes during the batch reaction steaming phase. This information shall be maintained at the facility for the most recent five years. Notification of a malfunction shall be given in accordance with the SAPCB regulations.

(9 VAC 5-80-110 and Section E, #12, CA dated 5/30/1996)

**VII.C. Record Keeping**

The permittee shall maintain records of all operating parameters necessary to demonstrate compliance with the consent agreement dated 05/30/1996. These records shall be maintained for the tall oil batch reactor vent packed tower scrubber and associated monitoring equipment for the pressure differential, and shall include, but are not limited to, all of the following:

- a. A maintenance schedule
- b. Scheduled and unscheduled maintenance records
- c. Inventory of spare parts that are needed to minimize the duration of equipment breakdowns
- d. Written operating procedures;
- e. Packed tower scrubber differential pressure (instantaneous readings and continuous recorded readings)
- f. Beginning and ending times of the batch reactor steaming phase.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-110 and Section E, #15, CA dated 05/30/1996)

**VII.D. Testing – Not applicable.****VII.E. Reporting**

Quarterly, the permittee shall report all excursions in differential pressure of the scrubber (HW-CT01-CD009) controlling the tall oil batch reactor recorded for that time period, along with the explanation for each excursion and actions taken to correct the excursion.

(9 VAC 5-80-110)

## **VIII. Paper Mill Process Area Applicable Requirements**

### **VIII.A. Limitations**

VIII.A.1. Visible emissions from the batch cleaning operation for the paper machine (HW-PAM1-F031), paper machine vacuum pump (HW-PAM1-S001), paper machine vacuum pump (HW-PAM1-S002), dryer hood (HW-PAM1-S016), high density storage chest (HW-PAM1-V998a), and high density storage chest (HW-PAM1-V998b) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity. (9 VAC 5-40-80 and 9 VAC 5-80-110)

VIII.A.2. Visible emissions from the wet end fourdrinier (HW-PAM1-S011), paper machine press section (HW-PAM1-S012), and paper mill process area (HW-PAM1-S999) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity. (9 VAC 5-50-80 and 9 VAC 5-80-110)

VIII.A.3. RACT for VOC sources within the paper mill area of the Hopewell Mill shall be no additional controls. The permittee shall continue to operate the paper mill area in a manner consistent with minimizing VOC emissions to the extent practicable and in a manner consistent with good air pollution control practices. (9 VAC 5-80-110 and Section E, #5, CA dated 05/30/1996)

## **IX. Power Generation Process Area Applicable Requirements**

### **IX.A. Limitations**

IX.A.1. Visible emissions from the cooling tower (HW-PSB3-F001), cooling tower (HW-PSB3-F002), and cooling tower (HW-PSB3-F003) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity. (9 VAC 5-50-80 and 9 VAC 5-80-110)

IX.A.2. RACT for VOC sources within the power generation area of the Hopewell Mill shall be no additional controls. The permittee shall continue to operate the power generation area in a manner consistent with minimizing VOC emissions to the extent practicable and in a manner consistent with good air pollution control practices. (9 VAC 5-80-110 and Section E, #5 of CA dated 05/30/1996, 9 VAC 5-40-300)

IX.A.3. Particulate emissions from the coal/bark boiler (HW-PSG2-S022) shall be controlled by a multicyclone followed by an electrostatic precipitator (HW-PSG2-CD022) with a combined design control efficiency of 99.5%. An annual internal inspection shall be conducted on the cyclone by the permittee to insure structural integrity. The multicyclone and electrostatic precipitator shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-50-280, #2 the June 18, 2009 permit)

IX.A.4. Sulfur dioxide emissions from the coal/bark boiler (HW-PSG2-S022) shall be controlled by the use of coal with a maximum of 1.2% sulfur content by weight.

(9 VAC 5-80-110, 9 VAC 5-50-280, #3 of the June 18, 2009 permit)

IX.A.5. Nitrogen oxides emissions from the coal/bark boiler (HW-PSG2-S022) shall be controlled by the use of off-stoichiometric firing with secondary air supply.

(9 VAC 5-80-110, 9 VAC 5-50-280, #4 of the June 18, 2009 permit)

IX.A.6. Emissions from the operation of the coal/bark boiler (HW-PSG2-S022) shall not exceed the limitations specified below:

a. Particulate emissions as determined by Reference Method 5:

When firing coal or coal and woodwaste:	0.1 lbs/million BTU 72.8 lbs/hour
When firing 100% woodwaste:	44.3 lbs/hour

b. SO<sub>2</sub> as determined by Reference Method 6 or alternative method approved by DEQ:

When firing coal or coal and woodwaste:	1.2 lbs/million BTU 868 lbs/hour
When firing 100% woodwaste:	531 lbs/hr

c. NO<sub>x</sub> as determined by Reference Method 7 or alternative method approved by DEQ:

When firing coal or coal and woodwaste:	0.7 lbs/million BTU 500 lbs/hour
When firing 100% woodwaste:	310 lbs/hour

d. Opacity as measured by Reference Method 9:

20% except for one six minute period per hour of not more than 27%

(9 VAC 5-80-110, 9 VAC 5-50-280, #14 of the June 18, 2009 permit, 40 CFR 60.42(a)(1) & (2), 40 CFR 60.43(a)(1) & (2), 40 CFR 60.44(a)(2) & (3))

IX.A.7. Emissions from the thermal oxidation of non-condensable gases in the coal/bark boiler shall not exceed the limitations specified below:

Sulfur Dioxide	50.6 lbs/hr	22.2 tpy
Nitrogen Oxides	3.2 lbs/hr	1.4 tpy
Carbon Monoxide	32.8 lbs/hr	14.2 tpy

Volatile Organic Compounds	18.6 lbs/hr	8.0 tpy
Total Reduced Sulfur	0.3 lbs/hr	0.1 tpy

(9 VAC 5-80-110 and #15 of the June 18, 2009 permit)

IX.A.8. The approved fuels for the coal/bark boiler (HW-PSG2-S022) are bituminous coal and, wood. A change in fuels may require a permit to modify and operate.

(9 VAC 5-80-110 and 9 VAC 5-80-20, #21 of the June 18, 2009 permit)

IX.A.9. The sulfur content of the coal to be burned in the coal/bark boiler (HW-PSG2-S022) shall not exceed 1.2% by weight per shipment. The permittee shall maintain records (including fuel analysis for sulfur content) of all coal shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.

(9 VAC 5-80-110 and #24 of the June 18, 2009 permit)

IX.A.10. Coal processing, conveying, and storage equipment (HW-PSG2-F002, F003, F004) shall not exhibit opacity greater than 20%, as measured by 40 CFR 60 Appendix A, Method 9.

(9 VAC 5-80-110 and 40 CFR 60.252(c))

## **IX.B. Monitoring**

IX.B.1. Visible emissions observations shall be conducted for the coal processing, conveying, and storage equipment (HW-PSG2-F002, F003, F004), and cooling towers (HW-PSB3-F001, F002, F003) at least monthly during periods of normal facility operation for a sufficient time interval to determine if there are any above normal visible emissions. If above normal visible emissions are observed, a visible emissions evaluation (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9 shall be conducted. The VEE shall be conducted for a minimum period of six minutes. If any of the observations exceed the applicable opacity limit, the observation period shall continue until a total of sixty minutes of observation has been completed. A Method 9 evaluation shall not be required if the visible emissions condition is corrected in a timely manner such that no above normal visible emissions are present; the emissions unit is operating at normal operating conditions; and the cause and corrective measures taken are recorded.

(9 VAC 5-80-110)

IX.B.2. The following continuous emission monitoring systems (CEMs) shall be installed on the exhaust of the coal/bark boiler (HW-PSG2-S022):

- a. A continuous emission monitor to measure and record the opacity of stack gases;
- b. A continuous emission monitor to measure and record the concentration of sulfur dioxide in the stack gases;

- c. A continuous emission monitor to measure and record the concentration of nitrogen oxides in the stack gases; and
- d. A continuous emission monitor to measure and record the oxygen or carbon dioxide concentration in the stack gases.

All of the CEM calculation, data reduction, record keeping, and reporting requirements of NSPS Subpart D shall apply.

(9 VAC 5-80-110 and 9 VAC 5-50-40, #27 of the June 18, 2009 permit, 40 CFR 60.45(a))

IX.B.3. For performance evaluations and calibration checks, the following procedures shall be used:

- a. Methods 6, 7, and 3B, as applicable, shall be used for the performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems.
- b. Sulfur dioxide or nitric oxide, as applicable shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60.
- c. The span value for the continuous monitoring system measure the opacity of emissions shall be 80, 90, or 100%, for the continuous monitoring system measuring sulfur dioxides the span value shall be 1,500 ppm, and for the continuous monitoring system measuring nitrogen oxides, the span value shall be 1,000 ppm.

(9 VAC 5-80-110 and 40 CFR 60.45(c))

IX.B.4. For any continuous monitoring system installed under Condition IX.B.2, the conversion procedures under 40 CFR 60.45e.1 through 2 shall be used to convert the continuous monitoring data into units of the applicable standard, lbs/MMBtu.

(9 VAC 5-80-110 and 40 CFR 60.45(e))

IX.B.5. The permittee shall develop and implement a quality assurance plan for the continuous emission monitors on the coal/bark boiler. At a minimum the plan shall provide for daily calibration drift checks, periodic preventative maintenance, and annual audits, including annual cylinder gas audits for the sulfur dioxide and nitrogen oxide monitors. Section 3 of Procedure 1 of Appendix F of 40 CFR 60 may be used as a guide by which to pattern the plan. Audit information shall be submitted with semiannual excess emission and summary report form information. The permittee shall keep the written quality assurance plan on record to be made available for inspection by the DEQ. In addition, if the plan is revised, the permittee shall keep previous versions of the plan on record, to be made available for inspection, upon request, by the DEQ, for a period of five years after each revision to the plan.

(9 VAC 5-80-110 and 40 CFR 60.13(a))

### **IX.C. Record Keeping**

IX.C.1. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the coal/bark boiler (HW-PSG2-S022); any malfunction of the air pollution control equipment (HW-PSG2-CD022, electrostatic precipitator), or any periods during which the continuous monitoring systems are inoperative.  
(9 VAC 5-80-110 and 40 CFR 60.7(b))

IX.C.2. The permittee shall maintain records of the monthly observations made of the coal process, conveying, and storage equipment. These records shall include, at a minimum, the name and signature of the observer; the date and time of the observances; Method 9 readings taken if any; and trouble shooting and corrective actions taken, if any.  
(9 VAC 5-80-110)

IX.C.3. The permittee shall maintain records of the emission factors, equations, and equipment ratings used to calculate the emissions from the cooling tower (HW-PSB3-F001, F002, and F003).  
(9 VAC 5-80-110)

### **IX.D. Testing**

Once per permit term, and no later than 1 year after the initial issuance date of this permit, the facility shall conduct performance tests for particulate matter, opacity, sulfur dioxide, and nitrogen oxides on the exhaust from the coal/bark boiler (HW-PSG2-S022) and electrostatic precipitator (HW-PSG2-CD022) to determine compliance with all emission limitations in IX.A.6. Tests shall be conducted at no less than 80% of maximum rated capacity for each fuel type/mix. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110)

### **IX.E. Reporting**

IX.E.1. Excess emission and monitoring system performance (MSP) reports shall be submitted to the Administrator semiannually for each six month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six month period. Each excess emission and MSP report shall include the information required in 40 CFR 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

- a. Opacity: Excess emissions are defined as any six minute period during which the average opacity of emissions exceeds 20% opacity, except that one six-minute average per hour of up to 27% opacity need not be reported.

- b. Sulfur Dioxide: Excess emissions are defined as any three hour period during which the average emissions (arithmetic average of three contiguous one hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed 1.2 lb/MMBtu.
- c. Nitrogen oxides: Excess emissions are defined as any three hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed 0.7 lbs/MMBtu.

(9 VAC 5-80-110 and 40 CFR 60.45(g) and Condition III.F.1)

IX.E.2. Semiannual excess emission reports shall also contain records of dates of shipments of coal received that had an S content of more than 1.2% by weight, and records of monthly visible emissions observations recorded according to IX.C.2 as well as any Method 9 data measured and any corrective actions taken. (9 VAC 5-80-110)

## **X. Miscellaneous Emission Sources**

### **X.A. Limitations**

- X.A.1. Visible emissions from the parts cleaner (HW-MNT-F007), parts cleaner (HW-MNT-F008), gasoline storage and dispensing (HW-GAS1-F001), parts cleaner (HW-MNT1-F009), and fuel oil storage tanks (PWR-10) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity. (9 VAC 5-50-80 and 9 VAC 5-80-110)
- X.A.2. The permittee shall prevent the discharge into the atmosphere of at least 85% by weight of volatile organic compound emissions from the cold cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) (9 VAC 5-80-110 and 9 VAC 5-40-3280 C.1)
- X.A.3. The reservoirs of the cold cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) shall be provided with covers that are designed so that they can easily be operated with one hand. Drainage facilities should be provided to collect and return the solvent to a closed container. The solvent spray should be a solid, fluid stream (not a fine, atomized or shower type spray) and at a pressure that does not cause excessive splashing. (9 VAC 5-40-3290 C.1.a, 9 VAC 5-40-3290 C.1.b., 9 VAC 5-40-3290 C.1.d)
- X.A.4. If the volatility of the solvent used in the cold cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) is greater than 0.6 psi measured at 100°F, or if the solvent is heated above 120°F, then the degreaser (if the open area is greater than 20ft<sup>2</sup>) should be equipped with one of the vapor control methods listed under 9 VAC 5-40-3290 C.1.e.1 through 5. (9 VAC 5-80-110 and 9 VAC 5-40-3290 C.1.e)

X.A.5. Waste solvent from the cold cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) shall not be disposed of or transferred to another party such that greater than 20% of the waste (by weight) can evaporate into the atmosphere. The permittee shall store waste solvent only in closed container.

(9 VAC 5-80-110 and 9 VAC 5-40-3290 C.2.a)

X.A.6. The cover on each cold cleaning machine (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) shall be closed whenever the permittee is not handling parts in the cleaner. Cleaned parts should drain for at least 15 seconds or until dripping ceases.

(9 VAC 5-40-3290 C.2.b., 9 VAC 5-40-3290 C.2.c)

X.A.7. Disposal of waste solvent from the cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) shall be by reclamation or incineration by an outside service.

(9 VAC 5-40-3290 C.2.d.)

X.A.8. The permittee shall place in a conspicuous location on or near the cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) a permanent label summarizing the requirements of X.A.5, X.A.6, and X.A.7

(9 VAC 5-40-3290C.1.c)

## **X.B. Monitoring**

Once each month the permittee shall inspect the area around each cleaning machine (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) to ensure that all operational requirements are being met. Any instances of non-compliance shall be corrected immediately. In areas where consecutive monthly inspections show instances of non-compliance, the permittee shall conduct training for area personnel on correct operational techniques to minimize air emissions from the cleaning machines.

(9 VAC 5-80-110)

## **X.C. Record Keeping**

X.C.1. The permittee shall maintain records of each monthly inspection conducted at each cleaning machine (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009), with all corrections noted. Any training conducted shall also be noted, along with a listing of personnel attending the training and dates of the training.

(9 VAC 5-80-110)

X.C.2. The permittee shall maintain MSDS information on the solvent used in the cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009). This information shall include data showing compliance with X.A.4

(9 VAC 5-80-110)

## **X.D. Reporting**

Semiannually the permittee shall report on instances of non-compliance found during cleaning machine (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) area inspections and training conducted for these machines.  
(9 VAC 5-80-110)

## XI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit #	Emission Unit Description	Citation <sup>(1)</sup>	Pollutant Emitted (9 VAC 5-80-720 B.)	Rated Capacity (9 VAC 5-80-720 C.)
Wood Yard Process Area				
1	Long log handling (1997)	9 VAC 5-80-720B	PM10	
2	Long log cranes Drum debarker infeed chute			
3	Debarking & chipping (1997)	9 VAC 5-80-720B	PM10	14'x90'
4	Drum debarker			80'
5	Drum debarker discharge gate			
6	Infeed conveyor			
7	Control House			
8	Prentice loader			
9	Chipper			15 knife 116" diam.
10	Motor Chipper Building			
	Pile erosion from long log piles (1997)	9 VAC 5-80-720B	PM10	
	Pile erosion from fresh cut chip pile (1997)	9 VAC 5-80-720B	PM10	
	Pile erosion from purchased chip pile (<1972)	9 VAC 5-80-720B	PM10	
	Pile erosion bark pile (1997)	9 VAC 5-80-720B	PM10	
11	Chip handling (> 1976)	9 VAC 5-80-720B	PM10	72"x232"
12	#1 conveyor			
13	Surge Bin			48"x343'
14	#2 conveyor To stack conveyor			54"x238'
	Chip silos (1953)	9 VAC 5-80-720B	PM10	
15	Fresh chip unloading to new pile Stacker conveyor and under pile reclaimers	9 VAC 5-80-720B	PM10	60"x153'
16	Fresh cut chip pile transport to scalping screen	9 VAC 5-80-720B	PM10	42"x386'
17	Reclaim conveyor Conveyor to scalping screen			42"x195'
18	Conveyor to screening	9 VAC 5-80-720B	PM10	42"x238'
20	Fresh chip transport to silo	9 VAC 5-80-720B	PM10	42"x428'
A	Accepts conveyor			42"x155'
B	Incline conveyor			42"x28'
C	Shuttle conveyor			48"x72'
D	#1 Short conveyor			48"x42'
E	#2 Short conveyor			24"x50'
F	#3 Short conveyor #3 Medium conveyor			24"x100'

Emission Unit #	Emission Unit Description	Citation <sup>(1)</sup>	Pollutant Emitted (9 VAC 5-80-720 B.)	Rated Capacity (9 VAC 5-80-720 C.)
21 & 22	Purchased chip unloading, truck Truck dumpers with live hopper reclaim	9 VAC 5-80-720B	PM10	
23 24	Purchased chip transport to new pile #1 chip dump conveyor #2 chip dump conveyor	9 VAC 5-80-720B	PM10	48"x134' 48"x248'
27, 28, & 29	Transport bark from debarker to conveyor Vibrating conveyors	9 VAC 5-80-720B	PM10	24/37x60'
31 & 32	Secondary Chipper and Screen Disc screen and hog	9 VAC 5-80-720B	PM10	
	Bark hogging (1997)	9 VAC 5-80-720B	PM10	
30 33 35 36 37	Bark handling (1997) #1 Mill bark conveyor #2 Mill bark conveyor Bark stacker and conveyor #3 Mill bark conveyor #4 Mill bark conveyor Bark/Truck loading	9 VAC 5-80-720B	PM10	42"x255' 42"x223' 42"x66' 42"x626' 42"x253'
38 39	Undersize chips conveyed to wood residue pile #1 Fines conveyor #2 Fines conveyor	9 VAC 5-80-720B	PM10	24"x351' 24"x184'
G	Conveyor form silos to chip bins Long conveyor	9 VAC 5-80-720B	PM10	48"x465'
H	chip bins	9 VAC 5-80-720B	PM10	
I	From bins to digester loading conveyor Outfeed conveyor	9 VAC 5-80-720B	PM10	38"x290'
J	Digester loading conveyor	9 VAC 5-80-720B	PM10	48"x460'
K	Purchased chip unloading, rail Rail car shaker	9 VAC 5-80-720B	PM10	
L	Old screen and pneumatic conveyance	9 VAC 5-80-720B	PM10	
	Fines Conveyor	9 VAC 5-80-720B	PM10	
<b>Recausticizing Area</b>				
HW-CRP1-V007	Mud storage	9 VAC 5-80-720A.42		
HW-CRP1-V023	Mud Pre-coat filter and vacuum pump exhaust (1993)	9 VAC 5-80-720A.42		
HW-CRP1-V025A	Green liquor clarifier tank (1998)	9 VAC 5-80-720A.42		
HW-CRP1-V025B	Green liquor storage tanks including surge tank (1998)	9 VAC 5-80-720A.42		
HW-CRP1-V026	Dregs filter, hood and vacuum pump (>1976)	9 VAC 5-80-720A.42		
HW-CRP1-622A	Pad clarifier and causticizing u-drains tank (1953)	9 VAC 5-80-720A.42		
7/017X	Causticizer	9 VAC 5-80-720A.42		
9/617D	Causticizer	9 VAC 5-80-720A.42		
8/739C	Causticizer	9 VAC 5-80-720A.42		
10/738C	Causticizer	9 VAC 5-80-720A.42		
HW-CRP1-V016B1	White liquor clarifier (1992)	9 VAC 5-80-720A.42		
HW-CRP1-V016B2	White liquor weak wash storage Tanks	9 VAC 5-80-720A.42		
<b>Chemical Recovery Process Area</b>				

Emission Unit #	Emission Unit Description	Citation <sup>(1)</sup>	Pollutant Emitted (9 VAC 5-80-720 B.)	Rated Capacity (9 VAC 5-80-720 C.)
	Salt cake conveying and storage (1977)	9 VAC 5-80-720A.42		
<b>Co-Product Recovery Process Area</b>				
HW-CT02-V001	2 Soap Storage tanks (1956)	9 VAC 5-80-720B	VOC HAP	
	Brine storage (pre 1970)	9 VAC 5-80-720B	VOC HAP	
HW-CT01-V008	Tall oil storage (pre 1956)	9 VAC 5-80-720B	VOC HAP	
HW-CT01-V014	Brine neutralization (1992)	9 VAC 5-80-720B	VOC HAP	
HW-CT01-V997	Tall oil settling (1995)	9 VAC 5-80-720B	VOC HAP	
<b>Paper Mill Process Area</b>				
	Stenciling of paper Rolls (1980)	9 VAC 5-80-720B	VOC	
<b>Power Generation Process Area</b>				
PWR-02	Ash handling and storage (1980)	9 VAC 5-80-720B	PM10	
PWR-03	Cooling Tower Tankage (1980)	9 VAC 5-80-720B	VOC	
PWR-06	Lube oil tanks (1980)	9 VAC 5-80-720B	VOC	
PWR-07	Misc. tanks/storage (1980)	9 VAC 5-80-720B	VOC	
<b>Recycled Fiber Process Area</b>				
	Recycled fiber process area (>1972)	9 VAC 5-80-720B	VOC	
	Hydropulper (<1972)	9 VAC 5-80-720B	VOC	
<b>Miscellaneous Processes</b>				
	Diesel Fuel, LP, and kerosene storage	9 VAC 5-80-720B	VOC	
	Used oil storage tanks	9 VAC 5-80-720B	VOC	
	Vehicle Fluids/oil storage tanks	9 VAC 5-80-720B	VOC	
HW-PRD1-F001	Paved road fugitives (not woodyard) (<1972)	9 VAC 5-80-720B	PM10	
HW-WWT1-F001	Wastewater handling (<1972)	9 VAC 5-80-720B	VOC	

<sup>1</sup>The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

## XII. Permit Shield and Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms

and conditions in this permit and the following requirements that have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description
40 CFR 63.8	Monitoring Requirements	This section of the general provisions of the MACT standards is not applicable to this facility since the continuous monitoring systems required by Subpart S do not currently have performance specifications promulgated for them. This exclusion is listed in 40 CFR 63.8(a)(2).
9 VAC 5 Chapter 40 Part II Article 17	Emission Standards for Woodworking Operations	This standard is not applicable to the wood yard operations (WY-01 and WY-02) since this standard typically does not apply to green wood.
40 CFR 60, Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels.	The facility does not have any storage tanks that are applicable to this standard.
40 CFR 60, Subpart BB	Standards of Performance for Kraft Pulp Mills	This new source performance standard does not apply to the 12 batch digesters (HW-PUM2-V037), the brown stock washer (HW-PUM1-A030), and the lime kiln (HW-CRP2-S022) since this equipment was built prior to the applicable construction date of the regulation (September 24, 1976).
40 CFR 60, Subpart D	Standards of performance for Fossil-Fuel-Fired Steam Generators	This standard is not applicable to the recovery furnace (HW-PSG4-S013) because the fuel oil is not fired for the purpose of steam generation.
40 CFR 60, Subpart Da	Standards of performance for Electric Utility Steam Generating Units	This standard is not applicable to the coal/bark boiler (HW-PSG2-S022) because the facility is not an electric utility.
40 CFR 63, Subpart T	National Emission Standards for Halogenated Solvent Cleaning	This standard does not apply to the batch cold cleaning machines (HW-MNT1-F007, HW-MNT1-F008, and HW-MNT1-F009) since they do not use halogenated solvents.
40 CFR 60, Subpart HH	Standards of Performance for Lime Manufacturing Plants	As provided in 60.340(b), the provisions of this subpart are not applicable to facilities used in the manufacture of lime at kraft pulp mills.
9 VAC 5-40-5220 F	Stage II Vapor Recovery Systems	This section of the regulations does not apply to the gasoline dispensing pump at the facility since the average monthly throughput is less than 10,000 gallons. This exemption is listed in 9 VAC 5-40-5220 F.4.a.
9 VAC 5 Chapter 40 Part II Article 13	Emission Standards for Kraft Pulp Mills	This standard does not apply to the recovery furnace (HW-PSG4-S013), the MEEV (HW-PSG4-S999A), and the smelt dissolving tank (HW-PSG4-S018) since this equipment is subject to new source performance standards and Chapter 50 of the regulations. This exemption is listed in 9 VAC 5-40-1660 C.
40 CFR 60.283(a)(4)	Standard for TRS from Smelt Dissolving Tanks	This standard does not apply (0.033 lb/ton black liquor solids as H <sub>2</sub> S) since the PSD permit applied the more stringent standard of 0.0168 lbs/ton black liquor solids. Therefore, the standard in 60.283 has been streamlined.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the

federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

### **XIII. General Conditions**

#### **XIII.A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

#### **XIII.B. Permit Expiration**

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

**XIII.C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the 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 such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.  
(9 VAC 5-80-110 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.  
(9 VAC 5-80-110 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
  - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
  - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
    - (i) Exceedance of emissions limitations or operational restrictions;
    - (ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
    - (iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
  - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”  
(9 VAC 5-80-110 F)

**XIII.D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance

certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.
7. One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)  
U. S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

#### **XIII.E. Permit Deviation Reporting**

The permittee shall notify the Director, Piedmont Region within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 3 of this permit.  
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

#### **XIII.F. Failure/Malfunction Reporting**

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts,

including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region.

(9 VAC 5-20-180 C)

1. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14 day written notification.
2. Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:
  - a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
  - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
  - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
  - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.
3. All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.

(9 VAC 5-20-180 C, and 9 VAC 5-50-50)

### **XIII.G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

### **XIII.H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air

Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

**XIII.I. Need to Halt or Reduce Activity not a Defense**

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.

(9 VAC 5-80-110 G.3)

**XIII.J. Permit Modification**

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

**XIII.K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

**XIII.L. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board 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 Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

(9 VAC 5-80-110 K.1)

**XIII.M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

**XIII.N. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

**XIII.O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E)

**XIII.P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

**XIII.Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

**XIII.R. Reopening For Cause**

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 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 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator 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.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**XIII.S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

**XIII.T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

#### **XIII.U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
  - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

### **XIII.V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

### **XIII.W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

### **XIII.X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

### **XIII.Y. Asbestos Requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

### **XIII.Z. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

### **XIII.AA. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

**XIII.BB. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

**XIV. State-Only Enforceable Requirements**

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

Odor – 9 VAC 5 Chapter 40, Article 2 and 9 VAC 5 Chapter 50, Article 2.

State toxics rule – 9 VAC Chapter 40, Article 3 and 9 VAC Chapter 50, Article 3.

(9 VAC 5-80-110 N and 9 VAC 5-80-300)