

## Virginia Title V Operating Permit

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, and 9 VAC 5-140-10 through 9 VAC 5-140-900 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:          | Georgia-Pacific Corporation                      |
| Mailing Address:         | 9363 Lee Jackson Highway<br>Big Island, VA 24526 |
| Facility Name:           | Georgia-Pacific Corporation, Big Island Mill     |
| Facility Location:       | 9363 Lee Jackson Highway, Big Island, Virginia   |
| DEQ Registration Number: | 30389  |
| AFS ID Number:           | 51-019-0003                                      |
| Permit Number:           | VA-30389   |

Effective Date: July 1, 2003

Expiration Date: July 1, 2008

Original Permit Signature Date: May 28, 2003

Date of current minor modification to add NOx Budget Trading Program, (replace all pages): July 30, 2004

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Robert G. Burnley  
Director, Department of Environmental Quality

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Permit Conditions, 82 pages

Attachment:

DEQ December 16, 2002 letter to GP (Subpart MM compliance date)

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## **I. Facility Information**

### **Permittee**

Georgia-Pacific Corporation  
Hwy. 501 North  
P.O. Box 40  
Big Island, VA 24526

### **Responsible Official**

George Cifelli  
General Manager

### **Facility**

Georgia-Pacific Corporation, Big Island Mill  
9363 Lee Jackson Highway, Big Island, VA  
Bedford County

### **Contact Person**

Timothy H. Pierce  
Environmental Manager  
(434) 299-7386

Registration Number: 30389

**AFS Identification Number:** 51-019-0003

ORIS Code/EIA Facility ID: 880035

**Facility Description:** SIC Code 2631 – Georgia-Pacific’s Big Island mill is a manufacturer of corrugating medium produced using pulp produced from recycled old corrugated containers (OCC) and semichemical pulp, and linerboard produced from 100% recycled OCC and is covered by Standard Industrial Classification (SIC) Code 2631.

**II. Emission Units**

Equipment to be operated consists of:

(See Notes on page 9. See Note 2 for abbreviations)

| Emission Unit ID              | Stack ID | Emission Unit Description<br>(Date = installed date unless otherwise noted)                             | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description | PCD ID            | Pollutant Controlled | Applicable Permit Date            |
|-------------------------------|----------|---|-------------------------------------|--|-------------------|----------------------|-----------------------------------|
| <b>Fuel Burning Equipment</b> |          |   |                                     |  |                   |                      |                                   |
| PWR01                         | Fug.     | Refuse Handling System, 1977  | 1360 tons/day output                | ---  | ---               | ---                  | ---                               |
| PWR04                         | E26      | No. 4 Boiler: Combustion Engineering, 4 drum sterling with air preheater, built 1943, installed 1965    | 284 MMbtu/hr                        | Multicyclone & Electrostatic Precipitator  | PWRCD01 & PWRCD02 | PM                   | See Note 3                        |
| PWR05                         | E27      | No. 5 Boiler: Foster-Wheeler, 3 drum beat with economizer and air preheater, built 1947, installed 1977 | 339 MMbtu/hr                        | Multicyclone & Electrostatic Precipitator  | PWRCD03 & PWRCD04 | PM                   | 1/28/75 and 11/21/96 (See Note 4) |
| PWR06                         | E34      | No. 6 Boiler: Foster-Wheeler, D-type package boiler 1995  | 284.9 MMbtu/hr                      | Low NOx burners and flue gas recirculation | ---               | NOx                  | 6/30/95, as amended 2/26/03       |

| Emission Unit ID | Stack ID              | Emission Unit Description<br>(Date = installed date unless otherwise noted) | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description   | PCD ID                            | Pollutant Controlled | Applicable Permit Date |
|------------------|-----------------------|---|-------------------------------------|--|-----------------------------------|----------------------|------------------------|
| <b>Pulp Mill</b> |                       |   |                                     |  |                                   |                      |                        |
| PULP02           | ---                   | <b>Digester System</b> which includes, but is not limited to:               | 864 ODTPD output                    | Capture and control of Total HAP emissions from the stock storage tank and the new blow tank in accordance with MACT I | PWR05 (Primary)<br>PWR04 (Backup) | Total HAP Emissions  | ---                    |
|                  | ---                   | - (5) Digester Screw Feeders  | ---                                 |  |                                   |                      |                        |
|                  | ---                   | - (5) Blowback Collection Boxes   | ---                                 |  |                                   |                      |                        |
|                  | ---                   | - No. 1 Digester, prior to 1950   | 275 ODTPD                           |  |                                   |                      |                        |
|                  | ---                   | - No. 2 Digester, prior to 1950   | 148 ODTPD                           |  |                                   |                      |                        |
|                  | ---                   | - No. 3 Digester, prior to 1950   | 148 ODTPD                           |  |                                   |                      |                        |
|                  | ---                   | - No. 4 Digester, 1967  | 275 ODTPD                           |  |                                   |                      |                        |
|                  | ---                   | - No. 5 Digester, 1972  | 275 ODTPD                           |  |                                   |                      |                        |
|                  | ---                   | - (5) Digester Defibrators  | ---                                 |  |                                   |                      |                        |
|                  | P35, P36              | - Stock Storage Tank, 1964  | ---                                 |  |                                   |                      |                        |
| ---              | - New Blow Tank, 2000 | ---   |                                     |  |                                   |                      |                        |

| Emission Unit ID | Stack ID          | Emission Unit Description<br>(Date = installed date unless otherwise noted) | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|------------------|-------------------|---|-------------------------------------|--|--------|----------------------|------------------------|
| PULP03           | P1, P2, P4, P5    | <b>Pulp Washer system:</b> which includes, but is not limited to:           | 864 ODTPD output                    |  |        |                      |                        |
|                  | P9, P10, P12, P13 | - (2) Pulp washers, prior to 1962   | ---                                 | ---  | ---    | ---                  | ---                    |
|                  | P6, P15           | - (3) Washer Filtrate Tanks, 1959   | Combined capacity = 77,500 gal      |  |        |                      |                        |
|                  | P11               | - Sidehill Screen   | ---                                 |  |        |                      |                        |
| PULP04           | ---               | <b>Semichemical Pulp Storage:</b> which includes, but is not limited to:    | ---                                 |  |        |                      |                        |
|                  | P34               | - High Density Tank, 1986   | 582,000 gal                         |  |        |                      |                        |
|                  | ---               | - Pulp Mill Chest, prior to 1959  | 65,700 gal                          | ---  | ---    | ---                  | ---                    |
|                  | M12 thru M15      | - (2) Tile Tanks, 1961  | 63,000 gal, each                    |  |        |                      |                        |
|                  |                   | - Machine Chest, prior to 1950  | 71,300 gal                          |  |        |                      |                        |

| Emission Unit ID         | Stack ID            | Emission Unit Description<br>(Date = installed date unless otherwise noted)    | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description                                       | PCD ID                                  | Pollutant Controlled   | Applicable Permit Date |
|--------------------------|---------------------|--|-------------------------------------|--|---|------------------------|------------------------|
| <b>Chemical Recovery</b> |                     |  |                                     |  |   |                        |                        |
| REC01                    | R45                 | <b>Recovery Smelter No. 1,</b><br>constructed 1955                             | 6.04 TBLS/hr                        | Venturi Scrubber & Mist Eliminator   | RECCD01,<br>installed 1985              | PM                     | ---                    |
| REC02                    | R45                 | <b>Recovery Smelter No. 2,</b><br>constructed 1965                             | 6.04 TBLS/hr                        | Venturi Scrubber   | RECCD02,<br>installed 1980              | PM                     | ---                    |
| REC03                    | ---                 | <b>Weak Black Liquor Storage:</b><br>including but not limited to:             | ---                                 | ---  | ---                                     | ---                    | ---                    |
|                          | R52                 | - DR WBL Storage Tank,<br>prior to 1971  | 540,000 gal                         | ---  | ---                                     | ---                    | ---                    |
|                          | R51                 | - UR WBL Storage Tank,<br>1996   | 900,000 gal                         | ---  | ---                                     | ---                    | ---                    |
|                          | R54                 | - WBL Surge Tank, prior<br>to 1971   | 16,900 gal                          | ---  | ---                                     | ---                    | ---                    |
|                          | R5                  | - Swing Tank, 1961   | 150,000 gal                         | ---  | ---                                     | ---                    | ---                    |
| REC04                    | R11                 | <b>Evaporator System, (1989):</b><br>which includes, but is not<br>limited to: | 287 TBLS/day<br>output              | Capture and<br>control of Total<br>HAP emissions in<br>accordance with<br>MACT I | PWR05<br>(Primary)<br>PWR04<br>(Backup) | Total HAP<br>Emissions | ---                    |
|                          | R12                 | - Hot Well   | ---                                 |  |   |                        |                        |
|                          | ---                 | - Surface Condenser  | ---                                 |  |   |                        |                        |
|                          | ---                 | - Inter-Condenser  | ---                                 |  |   |                        |                        |
| REC05                    | R41,<br>R42,<br>R43 | <b>Strong Black Liquor Storage<br/>Tank, 1981</b>                              | 100,000 gal                         | ---  | ---                                     | ---                    | ---                    |

| Emission Unit ID   | Stack ID   | Emission Unit Description<br>(Date = installed date unless otherwise noted)   | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|--------------------|--|---|-------------------------------------|--|--------|----------------------|------------------------|
| REC06              | ---  | <b>Smelt Dissolving System</b> , (1965): which includes, but is not limited to:   | 290 TBLS/day output                 | ---  | ---    | ---                  | ---                    |
|                    | R7 thru R10  | - (4) Tanks   | 12,900 gal, combined capacity       |  |        |                      |                        |
|                    | ---  | - Dregs Tank, 1976  | ---                                 |  |        |                      |                        |
|                    | ---  | - Finish Liquor Tank, 1991  | ---                                 |  |        |                      |                        |
| <b>Medium Mill</b> |  |   |                                     |  |        |                      |                        |
| MM01               | M7, M8, M18, M21, M22, M23, M25 thru M29, M34, M35, M36, M38 | <b>No. 1 Paper Machine</b> , Pussey and Jones 100-inch trim (1928) and Voith press section (1995): including, not limited to:<br>- Stuff Box, Couch Pit, Seal Pit, Dry End Pulper, Wire Pit, and (4) Vacuum pumps | 350 tons/day output                 | ---  | ---    | ---                  | ---                    |

| Emission Unit ID | Stack ID   | Emission Unit Description<br>(Date = installed date unless otherwise noted)  | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|------------------|--|--|-------------------------------------|--|--------|----------------------|------------------------|
| MM03             | M49<br>thru<br>M58,<br>M61,<br>M62,<br>M64<br>thru<br>M68,<br>M71,<br>M74<br>thru<br>M77,<br>M81,<br>M82,<br>M88,<br>M91 | <b>No. 3. Paper Machine, Beloit</b><br>168-inch trim (1959):<br>including, but not limited to:<br>-Stuff Box, Couch Pit,<br>Seal Pit, Dry End Pulper,<br>Wire Pit, Press Pit and (4)<br>Vacuum pumps | 789 tons/day<br>output              | ---  | ---    | ---                  | ---                    |
|                  | ---  | - Whitewater Tank, 1997  | 200,000 gal                         | ---  | ---    | ---                  | ---                    |

| Emission Unit ID       | Stack ID                                | Emission Unit Description<br>(Date = installed date unless otherwise noted)  | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date      |
|------------------------|---|--|-------------------------------------|--|--------|----------------------|-----------------------------|
| <b>Linerboard Mill</b> |   |  |                                     |  |        |                      |                             |
| LBD04                  | L3<br>thru<br>L6,<br>L9,<br>L11,<br>L15 | <b>No. 4 Paper Machine,</b><br>(1995), including but not limited to:<br><ul style="list-style-type: none"> <li>- Base sheet machine chest, base sheet blend chest, top sheet machine chest, leveling chest, OCC low density storage chest, base sheet primary screen, base sheet secondary screen, broke storage chest unfiltered whitewater chest, base sheet stuff box, topsheet stuff box, flat box seal pit, top sheet off-machine silo, top sheet primary screen press pit pulper, excess clear whitewater, whitewater gravity strainer, strained whitewater chest, saveall, saveall filtrate chest couch pit, press pit, Uhle box seal pit, dry end pulper, reclaim water chest, vacuum pump sump, wire pit, winder</li> </ul> | 888 tons/day output                 | ---  | ---    | ---                  | 6/30/95, as amended 2/26/03 |

| Emission Unit ID                | Stack ID | Emission Unit Description<br>(Date = installed date unless otherwise noted)   | Size/Rated Capacity<br>(See Note 1) | Pollution Control Device (PCD) Description | PCD ID | Pollutant Controlled | Applicable Permit Date |
|---------------------------------|----------|---|-------------------------------------|--|--------|----------------------|------------------------|
| <b>Wastewater system</b>        |          |   |                                     |  |        |                      |                        |
| WW02                            | Fug.     | Industrial Wastewater Treatment (1977), including, but not limited to:<br>- Medium mill lift station, power/recovery lift station, primary clarifiers, nutrient tank, scum sump, equalization basin, aeration basin, polishing pond, foam control chest, sludge lift station, (2) sludge tanks, (2) decant lift stations, sludge press filtrate pump, #4/OCC lift station, (2) sludge holding ponds, lime silo, lime-sludge blender, (2) lime conveyors | 12 MGD output                       | ---  | ---    | ---                  | ---                    |
| <b>Miscellaneous Activities</b> |          |   |                                     |  |        |                      |                        |
| MIS01                           | Fug.     | <b>Paved Roads</b>  | ---                                 | ---  | ---    | ---                  | ---                    |
| MIS02                           | Fug.     | <b>Unpaved Roads</b>  | ---                                 | ---  | ---    | ---                  | ---                    |

- Notes:
1. The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
  2. Abbreviations: DR WBL = "Down River" Weak Black Liquor; Fug. = fugitive; OCC = Old corrugated containers; OCCR = OCC rejects; ODTPD = Oven Dry Tons of Pulp per Day; TBLS = Tons of Black Liquor Solids; TPD = Tons per Day; UR WBL = "Up River" Weak Black Liquor; WBL = Weak Black Liquor
  3. For PSD applicability purposes, the 6/30/95 permit, as amended 2/26/03, included a steam balance requirement that considers the steam that is produced by all three of the site's boilers. This steam balance requirement did not trigger permit review for either No. 4 Boiler or No. 5 Boiler.
  4. The 1/28/75 permit addresses the initial installation of the No. 5 Boiler. Compliance with the applicable requirements from the 11/21/96 permit ensures compliance with the applicable requirements from the 1/28/75 permit.

### III. Fuel Burning Equipment Requirements

#### A. No. 4 Boiler (PWR04)

##### 1. Limitations for No. 4 Boiler

- a. Particulate emissions from the No. 4 Boiler shall be controlled by multicyclones and electrostatic precipitators (ESPs). Each control device shall be provided with adequate access for inspection and each shall be in operation when the boiler is operating.  
(9 VAC 5-80-110)
- b. The approved fuels for the No. 4 Boiler are coal and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials "Standard Specification for Fuel Oils." A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-110)
- c. Emissions from the operation of the No. 4 Boiler shall not exceed the limits specified below:

|                    |                |
|--------------------|----------------|
| Particulate Matter | 0.21 lbs/MMBtu |
|--------------------|----------------|

|                |            |
|----------------|------------|
| Sulfur Dioxide | 750 lbs/hr |
|----------------|------------|

(9 VAC 5-80-110, 9 VAC 5-40-900, and 9 VAC 5-40-930)

- d. Visible Emissions from the No. 4 Boiler stacks (E26 and E27) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110 and 9 VAC 5-40-80)
- e. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the No. 4 Boiler and its air pollution control equipment which affect such emissions:
  - (1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
  - (2) Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.
  - (3) The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's

recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of 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 9 VAC 5-40-20 E)

## **2. Monitoring for No. 4 Boiler**

- a. Continuous emission monitoring systems shall be installed, calibrated, maintained, and operated as specified in Condition III.A.2.b to monitor and record opacity from the ESP stacks (E26 and E27).  
(9 VAC 5-80-110, 9 VAC 5-40-40, and 9 VAC 5-40-1000)

- b. Installation, calibration, maintenance, and operation requirements for the continuous opacity monitoring system (COMS):

- (1) The permittee shall check the zero and span drift in accordance with the provisions of 9 VAC 5-40-41.B.2

- (2) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition III.A.2.b(1), the COMS shall be in continuous operation and shall complete a minimum of one cycle of sampling and analyzing for each successive 15-second period and one cycle of data recording for each successive six-minute period.

- (3) The permittee shall reduce all COMS data to six-minute averages for six-minute periods. Six-minute opacity averages shall be calculated from 24 or more data points spaced at approximately equal intervals over each six-minute period, and shall be rounded to the nearest one percent. Data recorded during periods of system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages computed under this Condition.

(9 VAC 5-80-110, 9 VAC 5-40-41, and 9 VAC 5-40-1000)

## **3. Recordkeeping for No. 4 Boiler**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:

- a. Records of the occurrence and duration of any startup, shutdown or malfunction in the operation No. 4 Boiler; any malfunction of the air pollution control

equipment serving No. 4 Boiler; or any periods during which a continuous monitoring system or monitoring device is inoperative,

- b. Files of all measurements, including continuous monitoring system, monitoring device, and emission testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; and adjustments and maintenance performed on these systems or devices recorded in a permanent form suitable for inspection,
- c. Records as may be necessary to determine emissions from the No. 4 Boiler, including, but not limited to, representative coal sulfur and ash content per shipment. "Shipment" is defined for this condition as a continuous single delivery of fuels or blend of fuels from the same origin, and
- d. Operating procedures, maintenance schedules, training, and service records  
These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110, 9 VAC 5-40-50, and 9 VAC 5-40-20E)

#### **4. Testing for No. 4 Boiler**

- a. At a frequency not to exceed once every five years, the permittee shall conduct a stack test at stack E26 to demonstrate compliance with the pound per million BTU emission limit for particulate matter contained in Condition III.A.1.c of this permit. The test at stack E26 shall be performed concurrently with the test of stack E27 required in Condition III.B.4.a. The initial test shall be performed within 180 days after the effective date of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests shall be arranged with the West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the West Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110 E)
- b. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-40-30 and 9 VAC 5-80-110)

#### **5. Reporting for No. 4 Boiler**

- a. The permittee shall submit a written report of excess emissions from No. 4 Boiler (opacity) to the West Central Regional Office semiannually. All semiannual reports shall be postmarked by the 30th day following the end of each calendar

semiannual period and shall include the information specified in 9 VAC 5-40-50 C.

(9 VAC 5-80-110, and 9 VAC 5-40-50)

- b. The permittee shall submit written reports in accordance with General Condition XI.C

(9 VAC 5-80-110 F)

## **B. No. 5 Boiler (PWR05)**

### **1. Limitations for No. 5 Boiler**

- a. Particulate emissions from the No. 5 Boiler shall be controlled by the existing multiclone and ESP(s). The multiclone and ESP(s) shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-80-10 H, 9 VAC 5-50-260, and Condition 3 of 11/21/96 Permit)

- b. The approved fuels for the No. 5 Boiler are wastepaper pellets, wood, rubber, coal, used oil produced on-site, Old Corrugated Container Reject (OCCR) material and plytrim. A change in the fuels may require a permit to modify and operate.

(9 VAC 5-80-110, 9 VAC 5-80-10, Condition 4 of 11/21/96 Permit and 9 VAC 5-50-50 F)

- c. Wastepaper pellets shall be produced from wastepaper and a binder agent. The wastepaper shall contain no municipal-type solid waste (MSW). MSW includes household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, hospitals, nonmanufacturing activities at prisons and government facilities and other similar establishments or facilities. MSW also includes vehicle maintenance materials, limited to vehicle batteries, used motor oil, and tires.

(9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 5 of 11/21/96 permit)

- d. The concentration of trace pollutants in the wastepaper pellets to be combusted in No. 5 Boiler shall not exceed the following limits.

| <u>Pollutant</u> | <u>Concentration, mg/kg as received</u> |
|------------------|---|
| Barium           | 90                                      |
| Cadmium          | 30                                      |
| Chromium         | 300                                     |
| Chromium (+6)    | 50                                      |

|           |     |
|-----------|-----|
| Mercury   | 1   |
| Manganese | 200 |
| Nickel    | 300 |
| Lead      | 300 |
| Zinc      | 300 |
| Chlorides | 790 |

The supplier of wastepaper pellets shall provide a signed certification that each shipment conforms to this specification. The certification shall include the following:

- (1) The date and results of the laboratory analysis of wastepaper pellets for the above ten pollutants.
- (2) A statement that the wastepaper pellets contain no municipal solid waste as defined in Condition III.B.1.c.

(9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 6 of 11/21/96 permit)

- e. The binder agent to be used in the manufacture of wastepaper pellets shall be only wastewater treatment facility industrial sludge from the Big Island Mill. In the event that this material is not available, potable water shall be used as the binder agent. Any change in binder agent may require a permit to modify and operate. (9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 7 of 11/21/96 permit)
- f. The No. 5 Boiler shall combust no more than 19.17 tons/hour, 460 tons/day, or 168,000 tons/year, calculated monthly as the sum of each consecutive 12 months, of wastepaper pellets. (9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 8.a of 11/21/96 permit)
- g. The No. 5 Boiler shall combust no more than 7.5 tons/hour, 180 tons/day, or 65,700 tons/year, calculated monthly as the sum of each consecutive 12 months, of OCCR. These throughput limits shall be measured on an "as received" basis. (9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 8.b of 11/21/96 permit)
- h. The No. 5 Boiler shall combust no more than 21,900 tons/year of rubber, calculated monthly as the sum of each consecutive 12 months. The rubber in the total fuel to the No. 5 Boiler shall not exceed 7% by weight when combusting OCCR, and shall not exceed 11% by weight when combusting no OCCR. (9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 9 of 11/21/96 permit)
- i. The No. 5 Boiler shall combust no more than 20 gallons/hour, 200 gallons/day, and 12,000 gallons/year of used oil. The used oil combusted on No. 5 Boiler shall be only that generated on the permittee's site. (9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 10 of 11/21/96 permit)

j. The No. 5 Boiler shall combust no more than 100 tons/week of plytrim. The plytrim combusted in the No. 5 Boiler shall be only that generated at Georgia-Pacific's Roxboro, NC Engineering Lumber manufacturing facility.  
 (9 VAC 5-50-50 F)

k. Contaminants of the used oil combusted in No. 5 Boiler shall not exceed the limits specified below:

|                  |                       |
|------------------|-----------------------|
| Sulfur           | 0.5 percent by weight |
| PCB              | 28 ppm, by weight     |
| Arsenic          | 5 ppm, by weight      |
| Cadmium          | 2 ppm, by weight      |
| Chromium         | 10 ppm, by weight     |
| Lead             | 100 ppm, by weight    |
| Halogens (total) | 1000 ppm, by weight   |
| Flash Point      | 100° F minimum        |

The permittee shall sample and analyze, by an independent laboratory, the used oil tank serving the No. 5 Boiler initially before startup of used oil combustion and prior to each subsequent period of used oil combustion after each addition of used oil to the tank. Each sample shall be analyzed for sulfur content. Analysis for the remaining contaminants shall be performed on the initial fill before startup of used oil combustion and on a yearly basis thereafter.

(9 VAC 5-80-110, 9 VAC 5-170-160, and Condition 11 of 11/21/96 permit)

l. Emissions from the operation of the No. 5 Boiler shall not exceed the limits specified below at any time:

|   | <u>lb/MMBtu</u> | <u>lb/hr</u> | <u>tons/yr</u> |
|---|-----------------|--------------|----------------|
| Particulate Matter<br>(including PM <sub>10</sub> ) | 0.1             | 33.8         | 165.8          |
| PM <sub>10</sub>                                    | ---             | 20.3         | 88.9           |
| Sulfur Dioxide                                      | ---             | 485.1        | 2124.6         |
| Nitrogen Oxides                                     | ---             | 139.3        | 610.1          |
| Carbon Monoxide                                     | ---             | 161.1        | 705.5          |
| Volatile Organic<br>Compounds                       | ---             | 56.4         | 246.9          |

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-180, and Condition 18 of 11/21/96 Permit)

- m. Emissions from the operation of the No. 5 Boiler shall not exceed the limits specified below at any time:

| <u>Pollutant</u> | <u>lb/hr</u> | <u>tons/yr</u> |
|------------------|--------------|----------------|
| Barium           | 0.03         | 0.12           |
| Cadmium          | 0.009        | 0.0394         |
| Chromium         | 0.092        | 0.4030         |
| Chromium (+6)    | 0.015        | 0.0657         |
| Mercury          | 0.038        | 0.1664         |
| Manganese        | 0.170        | 0.7446         |
| Nickel           | 0.092        | 0.4030         |
| Lead             | 0.092        | 0.4030         |
| Zinc             | 1.704        | 7.464          |
| HCl              | 15.235       | 66.73          |

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-180 and Condition 19 of 11/21/96 permit)

- n. Visible emissions from the ESP exhaust stacks (E26 and E27) shall not exceed twenty (20) percent opacity as determined by EPA Method 9 (reference: 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

(9 VAC 5-80-110, 9 VAC 5-170-160, 9 VAC 5-50-20 and Condition 20 of 11/21/96 permit)

- o. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the No. 5 Boiler and its air pollution control equipment which affect such emissions:

(1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

(2) Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.

(3) The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of 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, 9VAC 5-170-160, and Conditions 26 and 27 of 11/21/96 permit)

**2. Monitoring for No. 5 Boiler**

Continuous emission monitoring systems shall be installed, calibrated, maintained, and operated as specified in Condition III.A.2.b to monitor and record opacity from the ESP stacks (E26 and E27).  
(9 VAC 5-80-110 E)

**3. Recordkeeping for No. 5 Boiler**

a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:

- (1) The daily and yearly consumption of wastepaper pellet fuel on the No. 5 Boiler. The yearly consumption shall be calculated monthly as the sum of each consecutive 12-month period,
- (2) A copy of all fuel supplier certifications for all shipments of wastepaper pellet fuel received during each calendar quarter or a quarterly summary from each fuel supplier that includes the information specified in Condition III.B.1.d for each shipment of wastepaper pellets,
- (3) A signed statement from the permittee that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the wastepaper pellets burned or received at the facility each calendar quarter,
- (4) The yearly consumption of wood fuel on the No. 5 Boiler, calculated monthly as the sum of each consecutive 12-month period,
- (5) The yearly consumption of rubber fuel on the No. 5 Boiler, calculated monthly as the sum of each consecutive 12-month period,
- (6) The daily and yearly consumption of used oil fuel on the No. 5 Boiler. The yearly consumption shall be calculated monthly as the sum of each consecutive 12-month period. Compliance with the maximum hourly consumption rate of used oil, specified in Condition No. III.B.1.i shall be by demonstration of maximum pump capacity and by yearly certification that this pump capacity has not been modified,
- (7) All laboratory analyses of used oil to demonstrate compliance with Condition III.B.1.k. The laboratory analyses shall include the test method used,

- (8) The yearly consumption of coal fuel on the No. 5 Boiler, calculated monthly as the sum of each consecutive 12-month period,
- (9) Coal purchased for combustion in the No. 5 Boiler, indicating representative sulfur and ash content per shipment. "Shipment" is defined for this condition as a continuous single delivery of fuels or blend of fuels from the same origin,
- (10) The daily and yearly consumption of OCCR fuel on the No. 5 Boiler. The yearly consumption shall be calculated monthly as the sum of each consecutive 12-month period.

These records shall be available on site for inspection by the Department and shall be current for the most recent five (5) years

(9 VAC 5-80-110, 9 VAC 5-170-160, 9 VAC 5-50-50 and Condition 22 of 11/21/96 Permit)

- b. In addition, the permittee shall maintain records of the following data. The content and format of such records shall be arranged with the West Central Regional Office.
  - (1) Records of the occurrence and duration of any startup, shutdown or malfunction in the operation No. 5 Boiler; any malfunction of the air pollution control equipment serving No. 5 Boiler; or any periods during which a continuous monitoring system or monitoring device is inoperative,
  - (2) Files of all measurements, including continuous monitoring system, monitoring device, and emission testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; and adjustments and maintenance performed on these systems or devices recorded in a permanent form suitable for inspection,

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 E)

#### 4. **Testing for No. 5 Boiler**

- a. At a frequency not to exceed once every five years, the permittee shall conduct a stack test at stack E27 to demonstrate compliance with the pound per million BTU emission limit for particulate matter contained in Condition III.B.1.1 of this permit. The test at stack E27 shall be performed concurrently with the test of stack E26 required in Condition III.A.4.a. The initial test shall be performed within 180 days after the effective date of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the

tests shall be arranged with the West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the West Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-89-110 E)

- b. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.

(9 VAC 5-80-110, 9 VAC 5-50-30 F and Condition 14 of 11/21/96 permit)

#### **5. Reporting for No. 5 Boiler**

- a. The permittee shall submit a written report of excess emissions (opacity) from stacks (E26 and E27) to the West Central Regional Office semiannually. All semiannual reports shall be postmarked by the 30th day following the end of each calendar semiannual period and shall include the information specified in 9 VAC 5-40-50 C. The permittee may combine this excess emissions report for the No. 5 Boiler with the report required for the No. 4 Boiler, as required by Condition III.A.5.a

(9 VAC 5-80-110 E)

- b. The permittee shall submit written reports in accordance with General Condition XI.C

(9 VAC 5-80-110 F)

#### **C. No. 6 Boiler (PWR06)**

##### **1. Limitations for No. 6 Boiler**

- a. Nitrogen Oxides emissions from the No. 6 Boiler shall be controlled by low NO<sub>x</sub> burners for each fuel and flue gas recirculation

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-260 A and Condition 3 of 6/30/95 Permit, as amended 2/26/03)

- b. Reactivation of Power Boiler No. 3 may require that the pre-construction permit dated 6/30/95, as amended 2/26/03, be reviewed under the provisions of 9 VAC 5 Chapter 8, Article 8 of the State Regulations, Prevention of Significant Deterioration.

(9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 5 of 6/30/95 Permit, as amended 2/26/03)

- c. The approved fuels for the No. 6 Boiler are natural gas, propane, and diesel fuel as defined in Condition III.C.1.d. A change in the fuels may require a permit to modify and operate.

(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 6 of 6/30/95 Permit, as amended 2/26/03)

- d. The maximum sulfur content of the diesel fuel to be burned in No. 6 Boiler shall not exceed 0.05 percent by weight per shipment. The permittee shall obtain a certification from the fuel supplier with each shipment of diesel fuel. Each fuel supplier certification shall include the following:

- (1) The name of the fuel supplier,
- (2) The date on which the fuel was received,
- (3) The volume of diesel fuel delivered in the shipment,
- (4) A statement that the fuel complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
- (5) The sulfur content of the fuel.

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-400 and Condition 9 of 6/30/95 permit, as amended 2/26/03)

- e. The No. 6 Boiler shall consume no more than  $2,386 \times 10^6$  cubic feet of natural gas, 2,363,000 gallons of diesel fuel, and 10,600,000 gallons of propane per year, calculated as the sum of each consecutive 12 month period.

Additionally, if any combination of the three fuels is used or if the quantity  $M_M + M_C - M_6$  is greater than or equal to zero during any consecutive 12 month period then the quantity of natural gas shall not exceed the amount as calculated by the following equation:

$$B = \{ (U \times 2000 \text{ lb/ton}) \\
 - (W \times \text{MMBTU}/10^6 \text{ BTU} \times Y \times Z) \\
 - (L \times \text{MMBTU}/10^6 \text{ BTU} \times N \times P) \\
 - [(M_M + M_C - M_6) \times (1.26 \text{ lb}_{\text{NO}_x} / 1000 \text{ lb}_{\text{steam}})] \} \\
 ) (C \times \text{MMBTU} / 10^6 \text{ BTU} \times D)$$

(If the quantity  $M_M + M_C - M_6 \neq 0$ , then 0 shall be entered for the quantity.)

where

B = annual consumption of natural gas, in units of cubic feet per year

U = annual  $\text{NO}_x$  emissions, in units of tons per year = 42.65

$W = \text{NO}_X$  emission factor when firing diesel fuel, in units of  
pounds per MMBTU = 0.0885

$Y =$  Higher Heating Value ( $\text{HHV}_{\text{OIL}}$ ) for diesel fuel, in units of BTU/gallon

$Z =$  annual consumption of diesel fuel, in units of gallons per year

$L = \text{NO}_X$  emission factor when firing propane, in units of  
pounds per MMBTU = 0.0434

$N =$  Higher Heating Value ( $\text{HHV}_{\text{PROP}}$ ) for Propane, in units of BTU/gallon

$P =$  annual consumption of propane, in units of gallons per year

$C = \text{NO}_X$  emission factor when firing natural gas, in units of pounds per  
MMBTU = 0.0315

$D =$  Higher Heating Value ( $\text{HHV}_{\text{NG}}$ ) for natural gas, in units of BTU/ft<sup>3</sup>

$M_M =$  the minimill steam input, in units of lb<sub>steam</sub> /yr

$M_C =$  No. 6 Boiler deaerator input, in units of lb<sub>steam</sub> /yr

$M_6 =$  No. 6 Boiler output, in units of lb<sub>steam</sub> /yr

For a calendar month, if the average  $\text{NO}_X$  emission factor exceeds 0.0885 pounds per MMBTU when firing diesel fuel, then the larger emission factor shall be used in the above equation for that particular month's contribution to the consecutive 12 month total.

For a calendar month, if the average  $\text{NO}_X$  emission factor exceeds 0.0434 pounds per MMBTU when firing propane, then the larger emission factor shall be used in the above equation for that particular month's contribution to the consecutive 12 month total.

For a calendar month, if the average  $\text{NO}_X$  emission factor exceeds 0.0315 pounds per MMBTU when firing natural gas, then the larger emission factor shall be used in the above equation for that particular month's contribution to the consecutive 12 month total.

(9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 8 of 6/30/95 permit, as amended 2/26/03)

- f. The permittee shall install a steam flow monitoring system to continuously measure and record steam flow. The system shall include steam meters to measure the No. 6 Boiler output ( $M_6$ ), the minimill input ( $M_M$ ), and the No. 6 Boiler deaerator input ( $M_C$ ). The steam flow monitoring system shall measure the flow through each of the

three meters and shall report all flows at a single, temperature and pressure compensated, steam quality.

The permittee shall install a fuel flow monitoring system to continuously measure and record fuel flow to No. 6 Boiler. The system shall include meters for the each fuel train for each No. 6 Boiler fuel.

The permittee shall submit quality control / quality assurance (QC/QA) plans for both the steam flow monitoring system and the fuel flow monitoring system. The content of and format of the QC/QA plans shall be arranged with the West Central Regional Office. These plans shall include, but are not limited to:

1. procedures and schedules for calibration and maintenance for each meter and its associated transmitters, and
2. the algorithm for data manipulation in the Data Acquisition system; including the procedures to be used for substituting for any missing data in Equations 1, 2, 3, 4 or 5, as shown in section III.D of this permit, Compliance Determination Procedures.

(9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 26 of 6/30/95 permit, as amended 2/26/03)

- g. For each calendar day, the relationship  $M_M + M_C - M_6$  shall be evaluated on a consistent steam quality basis. If the result of the relationship is greater than zero, the permittee shall calculate the daily nitrogen oxide emissions in accordance with Equation #3, as shown in section III.D of this permit, Compliance Determination Procedures. If the result of Equation #3 is greater than zero, the permittee shall report in writing to the West Central Regional Office within 14 days.  
 (9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 27 of 6/30/95 permit, as amended 2/26/03)

- h. Except as specified in this permit, No. 6 Boiler is to be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart Db.  
 (9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 13 of 6/30/95 permit, as amended 2/26/03)

- i. Emissions from the operation of No. 6 Boiler when firing natural gas shall not exceed the limits specified below:

|  | <u>lbs/10<sup>6</sup> Btu</u> | <u>lbs/hr</u> |                                       |
|--|-------------------------------|---------------|---------------------------------------|
| Particulate Matter                       | ----                          | 0.85          | (9 VAC 5-50-260 A)                    |
| PM-10                                    | ----                          | 0.85          | (9 VAC 5-50-260 A)                    |
| Nitrogen Oxides<br>(as NO <sub>2</sub> ) | 0.0315<br>(30-day roll. avg.) | 8.97          | (9 VAC 5-50-260 A)<br>(40 CFR 60.44b) |

|                               |      |       |                    |
|-------------------------------|------|-------|--------------------|
| Carbon Monoxide               | ---- | 15.42 | (9 VAC 5-50-260 A) |
| Volatile Organic<br>Compounds | ---- | 0.80  | (9 VAC 5-50-260 A) |
| Formaldehyde                  | ---- | 0.14  | (9 VAC 5-60-320)   |

(9 VAC 5-80-110, and Condition 17 of 6/30/95 Permit, as amended 2/26/03)

- j. Emissions from the operation of No. 6 Boiler when firing diesel fuel shall not exceed the limits specified below:

|  | <u>lbs/10<sup>6</sup> Btu</u> | <u>lbs/hr</u> |                                       |
|--|-------------------------------|---------------|---------------------------------------|
| Particulate Matter                       | ----                          | 4.14          | (9 VAC 5-50-260 A)                    |
| PM-10                                    | ----                          | 4.14          | (9 VAC 5-50-260 A)                    |
| Sulfur Dioxide                           | ----                          | 14.14         | (9 VAC 5-50-260 A)                    |
| Nitrogen Oxides<br>(as NO <sub>2</sub> ) | 0.0885<br>(30-day roll. avg.) | 24.39         | (9 VAC 5-50-260 A)<br>(40 CFR 60.44b) |
| Carbon Monoxide                          | ----                          | 15.42         | (9 VAC 5-50-260 A)                    |
| Volatile Organic<br>Compounds            | ----                          | 1.27          | (9 VAC 5-50-260 A)                    |
| Formaldehyde                             | ----                          | 1.60          | (9 VAC 5-60-320)                      |

(9 VAC 5-80-110, and Condition 18 of 6/30/95 Permit, as amended 2/26/03)

- k. Emissions from the operation of No. 6 Boiler when firing propane shall not exceed the limits specified below:

|  | <u>lbs/10<sup>6</sup> Btu</u> | <u>lbs/hr</u> |                                       |
|--|-------------------------------|---------------|---------------------------------------|
| Particulate Matter                       | ----                          | 0.81          | (9 VAC 5-50-260 A)                    |
| PM-10                                    | ----                          | 0.81          | (9 VAC 5-50-260 A)                    |
| Sulfur Dioxide                           | ----                          | 4.96          | (9 VAC 5-50-260 A)                    |
| Nitrogen Oxides<br>(as NO <sub>2</sub> ) | 0.0434<br>(30-day roll. avg.) | 12.11         | (9 VAC 5-50-260 A)<br>(40 CFR 60.44b) |
| Carbon Monoxide                          | ----                          | 15.40         | (9 VAC 5-50-260 A)                    |

Volatile Organic                      ----                      0.78    (9 VAC 5-50-260 A)  
 Compounds

(9 VAC 5-80-110, and Condition 19 of 6/30/95 Permit, as amended 2/26/03)

1. The total annual emissions from the operation of No. 6 Boiler shall not exceed the limits specified below:

|  | <u>tons/yr</u> |
|--|----------------|
| Particulate Matter                       | 5.15           |
| PM-10                                    | 5.15           |
| Sulfur Dioxide                           | 16.97          |
| Nitrogen Oxides<br>(as NO <sub>2</sub> ) | 42.65**        |
| Carbon Monoxide                          | 67.53          |
| Volatile Organic<br>Compounds            | 3.49           |
| Formaldehyde                             | 1.38           |

\*\* NO<sub>2</sub> emissions calculated in accordance with Equation #4, as shown in section III.D of this permit, Compliance Determination Procedures.

(9 VAC 5-80-110, 9 VAC 5-50-260 A and 9 VAC 5-60-320 and Condition 20 of 6/30/95 Permit, as amended 2/26/03)

- m. Visible emissions from the No. 6 Boiler shall not exceed 10 percent opacity, except for one six-minute period per hour which shall not exceed 20 percent opacity. Visible emission evaluations shall be in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
 (9 VAC 5-80-110, 9 VAC 5-50-260 A and 9 VAC 5-50-20, 40 CFR 60.43b, and Condition 21 of 6/30/95 permit, as amended 2/26/03)
- n. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the No. 6 Boiler and its air pollution control equipment which affect such emissions:
- (1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

- (2) Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.
- (3) The No. 6 Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the Department.

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, 9 VAC 5-40-20 E, 9 VAC 5-80-1180 and Conditions 10 and 31 of 6/30/95 permit, as amended 2/26/03)

## **2. Monitoring for No. 6 Boiler**

- a. Continuous emissions monitoring systems shall be installed to measure and record opacity, the concentration of nitrogen oxides, and CO<sub>2</sub> or O<sub>2</sub> emissions from No. 6 Boiler. The monitoring systems shall be designed, installed, maintained, evaluated, calibrated and operated in accordance with 40 CFR 60 Subpart A, 40 CFR 60 Subpart Db, and 40 CFR 60, Appendices B and F. During all periods of No. 6 Boiler operation, the nitrogen oxides monitoring system and the CO<sub>2</sub> or O<sub>2</sub> monitoring system shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments. During all periods of diesel fuel combustion in the No. 6 Boiler, the opacity monitoring system shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments.

After the initial performance evaluation, the permittee shall conduct opacity monitoring system audits, on a regularly scheduled basis, to demonstrate compliance with the calibration error specification (40 CFR 60, Appendix B, Performance Specification 1). In no case shall the length of time between audits exceed twelve months. Prior to the first scheduled audit the permittee shall submit, for approval, to the West Central Regional Office, the proposed audit procedures for the opacity monitoring system. A 30-day notification prior to the initial performance evaluation and each scheduled audit shall be submitted to the West Central Regional Office.

The permittee shall submit a report of monitored emissions and monitor performance semi-annually commencing at the time of completion of the performance evaluation. The reports are to be submitted, postmarked no later than 30 calendar days after the end of the semi-annual period, to the West Central

Regional Office. The details and format of the report are to be arranged with the West Central Regional Office prior to the submission of the first report.

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-40 F, 9 VAC 5-50-400, 40 CFR 60.48b, and Condition 11 of 6/30/95 permit, as amended 2/26/03)

- b. The opacity continuous monitoring system shall be installed and operational prior to initial combustion of diesel fuel. Performance evaluations of the opacity continuous monitoring system must take place within thirty (30) days of initial combustion of diesel fuel. Two (2) copies of the performance evaluations report shall be submitted to the West Central Regional Office within forty-five (45) days of said evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device.  
(9 VAC 5-80-110, 9 VAC 5-50-40, 40 CFR 60.48b, and Condition 15 of 6/30/95 permit, as amended 2/26/03)
- c. At least one time per calendar week an observation of the presence of visible emissions from the No. 6 Boiler stack shall be made. The presence of visible emissions shall require the permittee to:
- (1) take timely corrective action such that the No. 6 Boiler, with visible emissions, resumes operation with no visible emissions, or,
  - (2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the stack do not exceed 10 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 10 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler resumes operation with visible emissions of 10 percent or less.

The permittee shall maintain a log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the No. 6 Boiler has not been operated for any period during the week, it shall be noted in the log that the boiler was not operated and that a visual observation was not required. If the compliance option allowed in condition III.C.2.d is used, it shall be noted in the log and that a visual observation was not required.

(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

- d. After completion of the performance evaluation required by condition III.C.2.b the continuous monitoring data generated by the opacity monitor as required by condition III.C.2.a may be used by the permittee as evidence of compliance with the opacity limit in lieu of the observations required in condition III.C.2.c.  
(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

### 3. Recordkeeping for No. 6 Boiler

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:

- a. Visual emission log for the No. 6 Boiler,  
(9 VAC 5-80-110 E)
- b. The daily and annual consumption of natural gas, diesel fuel, and propane. Each annual consumption rate shall be calculated as the sum of each consecutive 12 month period,  
(9 VAC 5-50-50, 40 CFR 60.49b, and Condition 24 of 6/30/95 permit, as amended 2/26/03)
- c. All diesel fuel supplier certifications, or fuel supplier furnished summaries of receipts. Summaries shall include the information specified in Condition III.C.1.d for each shipment of diesel fuel,  
(9 VAC 5-50-50, 40 CFR 60.49b, and Condition 24 of 6/30/95 permit, as amended 2/26/03)
- d. Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of No. 6 Boiler; any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative  
(9 VAC 5-50-50, 40 CFR 60.7, and Condition 24 of 6/30/95 permit, as amended 2/26/03)
- e. An annual calculation of Equation #4, as shown in section III.D of this permit, Compliance Determination Procedures. The calculation shall include justification and documentation for each emission factor, higher heating value, annual fuel consumption value, and steam flow value used. The annual calculation shall be calculated as the sum of each consecutive 12 month period. If the result of Equation #4 is greater than 42.65 tons per year, the permittee shall report in writing to the West Central Regional Office within 14 days.  
(9 VAC 5-50-50 and Condition 24 of 6/30/95 permit, as amended 2/26/03)
- f. An annual calculation of Equations #5 as shown in section III.D of this permit, Compliance Determination Procedures. The calculation shall include justification and documentation for the sulfur content, each annual fuel consumption value, and each steam flow value used. The annual calculation shall be calculated as the sum of each consecutive 12 month period. If the result of Equation #5 is greater than 46.30 tons per year, the permittee shall report in writing to the West Central Regional Office within 14 days.  
(9 VAC 5-50-50 and Condition 24 of 6/30/95 permit, as amended 2/26/03)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

#### 4. **Testing for No. 6 Boiler**

The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations  
(9 VAC 5-80-110, 9 VAC 5-50-30 F, and Condition 7 of 6/30/95 Permit, as amended 2/26/03)

#### 5. **Reporting for No. 6 Boiler**

- a. The permittee shall furnish written notification to the West Central Regional Office of:

The anticipated date of performance evaluation of the opacity continuous monitoring system for the No 6 boiler postmarked at least thirty (30) days prior to such date.

A copy of the written notification shall be sent to:

Associate Director  
Office of Air Enforcement (3AP10)  
U. S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

(9 VAC 5-80-110, 9 VAC 5-80-1180, 40 CFR 60.7, and Condition 23 of 6/30/95 Permit, as amended 2/26/03)

- b. The permittee shall submit fuel quality reports to the West Central Regional Office within 30 days after the end of each semi-annual period. If no shipments of diesel fuel were received during the calendar semi-annual period, the semi-annual report shall consist of the dates included in the calendar semi-annual period and a statement that no oil was received during the calendar quarter. If diesel fuel was received during the calendar semi-annual period the reports shall include:
- (1) The dates included in the calendar semi-annual period,
  - (2) A semi-annual summary for each fuel supplier that includes the information specified in Condition III.C.1.d for each shipment of diesel fuel, and

(3) A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the liquid fuel (excluding propane) burned or received at the facility for combustion in No. 6 Boiler.

(9 VAC 5-80-110, 9 VAC 5-80-1180 and 9 VAC 5-50-50 and Condition 25 of 6/30/95 permit, as amended 2/26/03)

- c. The permittee shall submit a report of any exceedance of the requirements of Equation #3 of the Compliance Determination Procedures in accordance with Condition III.C.1.g  
(9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 27 of 6/30/95 permit, as amended 2/26/03)
- d. The permittee shall submit excess emissions reports in accordance with Condition III.C.2.a.  
(9 VAC 5-80-110, 40 CFR 60.7, and Condition 11 of 6/30/95 permit, as amended 2/26/03)
- e. The permittee shall submit a report of any exceedance of the requirements of Equation #4 of the Compliance Determination Procedures in accordance with Condition III.C.3.e.  
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 24 of 6/30/95 permit, as amended 2/26/03)
- f. The permittee shall submit a report of any exceedance of the requirements of Equation #5 of the Compliance Determination Procedures in accordance with Condition III.C.3.f.  
(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 24 of 6/30/95 permit, as amended 2/26/03)
- g. The permittee shall submit written reports in accordance with General Condition XI.C  
(9 VAC 5-80-110 F)

**D. Compliance Determination Procedures**

**1. CALCULATIONS**

**a. Daily NO<sub>x</sub> emission calculations**

| Emission Unit                      | Calculation  | Equation Number |
|------------------------------------|--|-----------------|
| No. 6 Boiler                       | (CEM output in units of lb <sub>NO<sub>x</sub></sub> /MMBTU)<br>x (fuel thruput / 24 hour)<br>x (higher heating value of fuel)<br>= N <sub>6</sub> lb <sub>NO<sub>x</sub></sub> / day<br><br>NOTE: If more than (1) fuel is combusted in a single calendar day, this equation shall be calculated in parts, with the relevant data for each fuel, and the parts shall be summed. | 1               |
| Power boilers No. 4/5              | (M <sub>M</sub> + M <sub>C</sub> - M <sub>6</sub> in units of lb <sub>steam</sub> /day)<br>x 1.26 lb <sub>NO<sub>x</sub></sub> /1000 lb <sub>steam</sub><br>= N <sub>4/5</sub> lb <sub>NO<sub>x</sub></sub> / day  | 2               |
| Power boilers No. 4/5<br>AND No. 6 | N <sub>6</sub> + N <sub>4/5</sub> - 585.8 lb <sub>NO<sub>x</sub></sub> / day # 0   | 3               |

**b. Annual emission calculations**

**(1) NO<sub>x</sub> (Equation Number 4)**

$$U = \{ [(W \times \text{MMBTU}/10^6 \text{ BTU} \times Y \times Z) + (L \times \text{MMBTU}/10^6 \text{ BTU} \times N \times P) + (B \times \text{MMBTU}/10^6 \text{ BTU} \times C \times D)] / 2000 \text{ lb/ton} \} + \{ (M_M + M_C - M_6 \text{ in units of lb}_{\text{steam}}/\text{yr}) \times (1.26 \text{ lb}_{\text{NO}_x} / 1000 \text{ lb}_{\text{steam}}) \} / 2000 \text{ lb/ton}$$

(If the quantity M<sub>M</sub> + M<sub>C</sub> - M<sub>6</sub> # 0, then enter 0 for the quantity in Equation Number 4.)

where

U = annual NO<sub>x</sub> emissions, in units of tons per year

W = NO<sub>x</sub> emission factor when firing diesel fuel, in units of pounds per MMBTU = 0.0885

Y = Higher Heating Value (HHV<sub>OIL</sub>) for diesel fuel, in units of BTU/gallon

Z = annual consumption of diesel fuel, in units of gallons per year

L = NO<sub>x</sub> emission factor when firing propane, in units of pounds per MMBTU = 0.0434

N = Higher Heating Value (HHV<sub>PROP</sub>) for Propane, in units of BTU/gallon

P = annual consumption of propane, in units of gallons per year

B = annual consumption of natural gas, in units of cubic feet per year

C = NO<sub>x</sub> emission factor when firing natural gas, in units of pounds per MMBTU = 0.0315

D = Higher Heating Value (HHV<sub>NG</sub>) for natural gas, in units of BTU/ft<sup>3</sup>

M<sub>M</sub> = the minimill steam input, in units of lb<sub>steam</sub> /yr

M<sub>C</sub> = No. 6 Boiler deaerator input, in units of lb<sub>steam</sub> /yr

M<sub>6</sub> = No. 6 Boiler output, in units of lb<sub>steam</sub> /yr

For a calendar month, if the average NO<sub>x</sub> emission factor exceeds 0.0885 pounds per MMBTU when firing diesel fuel, then the larger emission factor shall be used in the above equation for that particular month's contribution to the consecutive 12 month total.

For a calendar month, if the average NO<sub>x</sub> emission factor exceeds 0.0434 pounds per MMBTU when firing propane, then the larger emission factor shall be used in the above equation for that particular month's contribution to the consecutive 12 month total.

For a calendar month, if the average NO<sub>x</sub> emission factor exceeds 0.0315 pounds per MMBTU when firing natural gas, then the larger emission factor shall be used in the above equation for that particular month's contribution to the consecutive 12 month total.

**(2) SO<sub>2</sub> (Equation Number 5)**

$$Q = \{ [(143.6 \times S \times Z/1000) + (1.60 \times P/1000)] / 2000 \text{ lb/ton} \} + \{ (M_M + M_C - M_6) \times (4.1 \text{ lb}_{\text{SO}_2} / 1000 \text{ lb}_{\text{steam}}) \} / 2000 \text{ lb/ton}$$

(If the quantity M<sub>M</sub> + M<sub>C</sub> - M<sub>6</sub> ≠ 0, then enter 0 for the quantity in Equation Number 5.)

where

Q = annual SO<sub>2</sub> emissions, in units of tons per year

S = weight percent sulfur in the diesel fuel

Z = annual consumption of diesel fuel, in units of gallons per year

P = annual consumption of propane, in units of gallons per year

$M_M$  = the minimill steam input, in units of  $\text{lb}_{\text{steam}}/\text{yr}$

$M_C$  = No. 6 Boiler deaerator input, in units of  $\text{lb}_{\text{steam}}/\text{yr}$

$M_6$  = No. 6 Boiler output, in units of  $\text{lb}_{\text{steam}}/\text{yr}$

(9 VAC 5-80-110 and Compliance Determination Procedures of 6/30/95 permit, as amended 2/26/03)

## 2. MISSING DATA

Substitute data for equations 1, 2, 3, 4, and 5 above shall be provided in accordance with 40 CFR 75.10 (d), 75.30 (a)(3) and (b), 75.31 (c), 75.32, and 75.33 (a) and (c).

(9 VAC 5-80-110 and Compliance Determination Procedures of 6/30/95 permit, as amended 2/26/03)

# IV. Process Equipment Requirement

## A. Pulp Mill Equipment

The Pulp Mill Equipment includes, but is not limited to: Pulp Mill Chip Storage and Conveying system (PULP01), Digester system (PULP02), Pulp Washer system (PULP03), Semichemical Pulp Storage (PULP04), Refiners (PULP05), DLK Pulp system (PULP06), Secondary Fiber System (PULP07), and Finished liquor storage tank (PULP08)

### 1. Limitations for the Pulp Mill Equipment

- a. The permittee shall control the total HAP emissions from the Low Volume, High Concentration system. The Low Volume, High Concentration (LVHC) system means the collection of equipment including the digester and evaporator systems, and any other equipment serving the same function as those previously listed. See section VI of this permit, for specific limitations for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. Visible emissions from all Pulp Mill Equipment, except the New Blow Tank portion of the Digester system (PULP02), 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)
- c. Visible emissions from the New Blow Tank, 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)

- d. The throughput of semi-chemical virgin pulp through the pulp washers (PULP03) shall not exceed 864 oven dry tons per day, calculated daily as the average of each consecutive 30-day period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 10 of 2/7/03 permit)

## 2. Monitoring for the Pulp Mill Equipment

- a. At least one time per calendar week, an observation for the presence of visible emissions from the Pulp Mill Equipment shall be made. If visible emissions are observed, the permittee shall:
  - (1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,
  - (2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the Pulp Mill Equipment resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.  
(9 VAC 5-80-110 E.)

- b. See section VI of this permit, for additional monitoring requirements for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

## 3. Recordkeeping for the Pulp Mill Equipment

- a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:
  - (1) Visual emission log for the Pulp Mill Equipment.  
(9 VAC 5-80-110 E)

- (2) The daily production of semichemical virgin pulp in units of oven dry tons, calculated daily as the sum of each consecutive 30-day period.  
(9 VAC 5-50-50 and Condition 25 of 2/7/03 permit)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.  
(9 VAC 5-80-110)

- b. The permittee, per 40 CFR 60, Subpart Kb Section 60.116b (a), (b) and (d), shall keep readily accessible records showing the dimensions, and an analysis showing the capacity, of the High Density Tank portion of the Semichemical Pulp Storage system (PULP04) and shall notify the West Central Regional Office within 30 days if the maximum true vapor pressure of the stored product exceeds 0.75 psi.  
(9 VAC 5-80-110, 9 VAC 5-50-400, and 40 CFR 60.116b)
- c. See section VI of this permit, for additional recordkeeping requirements for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

#### **4. Testing for the Pulp Mill Equipment**

- a. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-40-30, 9 VAC 5-50-30 and 9 VAC 5-80-110)
- b. See section VI of this permit, for additional testing requirements for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

#### **5. Reporting for the Pulp Mill Equipment**

- a. The permittee shall submit written reports in accordance with General Condition XI.C.  
(9 VAC 5-80-110 F)
- b. See section VI of this permit, for additional reporting requirements for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

#### **B. Chemical Recovery Equipment using Smelters**

The Pulp Mill Equipment using Smelters includes, but is not limited to: Recovery Smelter No. 1 (REC01), Recovery Smelter No. 2 (REC02), Weak Black Liquor Storage (REC03), Evaporator system (REC04), Strong Black Liquor Storage (REC05), Smelt Dissolving system (REC06), Liquor-Making system (REC07), Caustic Storage system (REC08), Condensate Storage system (REC09), Lube Oil system (REC10), and Soda Ash system (REC11)

The Evaporator system (REC04) of the Chemical Recovery Equipment is by definition a part of the LVHC system which is subject to the provisions of MACT I. (See Condition IV.A.1.a for the definition of the LVHC system.)

**1. Limitations for the Chemical Recovery Equipment using Smelters**

- a. The permittee shall control the total HAP emissions from the evaporator system (REC04). See section VI of this permit, for specific limitations for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. 40 CFR 63 Subpart MM Compliance Date
  - (1) In accordance with the DEQ letter dated December 16, 2002 (see attachment 1), the permittee for the existing semichemical combustion units at the Big Island mill shall comply with the requirements of 40 CFR 63 Subpart MM no later than March 1, 2005. For the purposes of section IV.B of this permit, the existing semichemical combustion units are Recovery Smelter No. 1 (REC01) and Recovery Smelter No. 2 (REC02).  
(9 VAC 5-80-110, and 40 CFR 63.6(i) 9 and 10)
  - (2) Furthermore, if the permittee constructs a new black liquor gasification system at the Big Island mill, determines that its attempt to start up the new system has been a failure, and therefore must construct another type of chemical recovery unit to replace the two existing semichemical combustion units, then the two existing semichemical combustion units must comply with the requirements of 40 CFR 63, Subpart MM by the earliest of the following dates: three years after the permittee declares the gasification system a failure, upon startup of the new replacement unit(s), or the calendar date specified in the current version of 40 CFR 63.863(c)(1). See section VII.A of this permit, for specific limitations for the semichemical combustion units.  
(9 VAC 5-80-110 and 40 CFR 63.863 (c)(1))
- c. Particulate emissions from the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02) shall be controlled by a venturi scrubber and a mist eliminator. The venturi scrubber and mist eliminator shall be provided with adequate access for inspection.  
(9 VAC 5-80-110)
- d. Visible emissions from the Chemical Recovery Equipment, with the exception of the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02), 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 )
- e. Visible emissions from the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02), shall not exceed 35% opacity.  
(9 VAC 5-40-1710 and 9 VAC 5-80-110)

- f. Emissions from the operation of the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02) shall not exceed the limits specified below:

|                                 |  |
|---------------------------------|--|
| Particulate Matter              | 3.00 lbs/equivalent ton of air dried pulp  |
| Total hydrocarbons<br>as carbon | Except during the Kraft Liquor Trials as specified in condition IV.C.1.1, and in accordance with the timing specified in condition IV.B.1.b, limits are specified in Condition VII.A.3 |

(9 VAC 5-80-110, 9 VAC 5-40-1680, and 40 CFR 63.862)

- g. Emissions from the operation of the Smelt Dissolving system (REC06) shall not exceed the limits specified below:

|                    |   |
|--------------------|---|
| Particulate Matter | 0.75 lbs/equivalent ton of air dried pulp |
|--------------------|---|

(9 VAC 5-80-110 and 9 VAC 5-40-1680)

- h. Upon the permittee's decision that the new chemical recovery system using gasification is in successful permanent operation, Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02) shall be deactivated in accordance with Condition IV.C.1.1.

(9 VAC 5-80-110 and 9 VAC 5-80-10 H)

## 2. **Monitoring for the Chemical Recovery Equipment using Smelters**

- a. See section VI of this permit, for additional monitoring requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. At least one time per calendar week, an observation for the presence of visible emissions from the Chemical Recovery Equipment, with the exception of the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02), shall be made. If visible emissions are observed, the permittee shall:
- (1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,
  - (2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.  
(9 VAC 5-80-110 E)

### **3. Recordkeeping for the Chemical Recovery Equipment using Smelters**

- a. See section VI of this permit, for additional recordkeeping requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to, a visual emission log for the Chemical Recovery Equipment, with the exception of the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02). These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.  
(9 VAC 5-80-110)
- c. The permittee shall have available good written operating procedures and a maintenance schedule for Recovery Smelter No. 1 (REC01) and Recovery Smelter No. 2 (REC02). These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-80-110)
- d. The permittee, per 40 CFR 60, Subpart Kb Section 60.116b (a), (b) and (d), shall keep readily accessible records showing the dimensions, and an analysis showing the capacity, of the UR WBL Storage Tank portion of the Weak Black Liquor Storage system (REC03), and of the Finish Liquor Storage Tank portion of the Liquor – Making system (REC07), and shall notify the West Central Regional Office within 30 days if the maximum true vapor pressure of either of the stored products exceeds 0.75 psi.  
(9 VAC 5-80-110, 9 VAC 5-50-400, and 40 CFR 60.116b)

**4. Testing for the Chemical Recovery Equipment using Smelters**

- a. See section VI of this permit, for additional testing requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-40-30 and 9 VAC 5-80-110)

**5. Reporting for the Chemical Recovery Equipment using Smelters**

- a. See section VI of this permit, for additional reporting requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. The permittee shall submit written reports in accordance with General Condition XI.C.  
(9 VAC 5-80-110 F)

**C. Chemical Recovery Equipment using Gasification**

The Chemical Recovery Equipment using Gasification includes, but is not limited to, a new chemical recovery system and the Evaporator system (REC04). This new chemical recovery system is comprised of the following four subsystems: the reformer subsystem, the steam generation subsystem, the chemical reclaim subsystem, and the product-gas cleanup subsystem.

**1. Limitations for the Chemical Recovery Equipment using Gasification**

- a. The permittee shall control the total HAP emissions from the evaporator system (REC04). See section VI of this permit, for specific limitations for the LVHC system.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. Upon startup as defined in 40 CFR 63.861, the permittee shall control the gaseous organic HAP emissions from the semichemical combustion unit. For the purposes of Section IV.C of this permit, the semichemical combustion unit is the new chemical recovery system. See section VII.A of this permit, for specific limitations for the semichemical combustion unit.  
(9 VAC 5-80-110 and 40 CFR 63.863 (b))
- c. Particulate emissions from the reformer subsystem's media bin shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the bin is receiving material.  
(9 VAC 5-80-110, 9 VAC 5-50-260 A, and Condition 3 of 2/7/03 permit)

- d. Nitrogen oxide emissions from the fuel-firing boiler component of the steam generation subsystem (“Reformer Boiler”) shall be controlled by low-NOx burners for both natural gas and product-gas. For the purposes of this permit, product-gas is defined as the hydrogen and carbon monoxide fuel gas produced in the reformer subsystem during the black liquor gasification process.  
(9 VAC 5-80-110, 9 VAC 5-50-260 A, and Condition 4 of 2/7/03 permit)
- e. Sulfur dioxide emissions from the chemical recovery system shall be controlled by a scrubber. The scrubber shall be provided with adequate access for inspection and shall be in operation when the product gas is fired as fuel in either the Reformer Boiler or the pulse heaters.  
(9 VAC 5-80-110, 9 VAC 5-50-260 A and Condition 5 of 2/7/03 permit)
- f. The emissions of product-gas during startup or upset conditions shall be controlled by a flare. Although not subject to 40 CFR 60.18 (b) through (f), the flare shall comply with these requirements and shall be operated at all times when product-gas may be vented to it. When the flare is operated, a monitored pilot flame shall be present at all times. The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design. The flare shall be provided with adequate access for inspection.  
(9 VAC 5-80-110, 9 VAC 5-50-20 E, and Condition 6 of 2/7/03 permit)
- g. The new chemical recovery system shall process no more than 73,000 Tons of black liquor solids per year, calculated monthly as the sum of each consecutive 12 month period.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 9 of 2/7/03 permit)
- h. The approved fuels for the Reformer Boiler are natural gas and product-gas. A change in these fuels may require a permit to modify and operate.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 11 of 2/7/03 permit)
- i. The approved fuels for the new chemical recovery system are natural gas and product-gas. A change in these fuels may require a permit to modify and operate.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 12 of 2/7/03 permit)
- j. Emissions from Reformer Boiler shall be controlled by proper operation and maintenance of combustion control equipment. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 13 of 2/7/03 permit)

- k. Upon start-up of the new chemical recovery system based on gasification technology, as defined in 40 CFR 63.861, the permittee shall determine whether the new system is permanently successful or must be replaced with alternative technology. The permittee shall notify the West Central Regional Office of its decision as required in Condition IV.C.5.d(4).  
 (9 VAC 5-80-110, 9 VAC 5-80-1180, and Condition 14 of 2/7/03 permit)
- l. Upon the permittee's decision that the new chemical recovery system is in successful permanent operation, the existing chemical recovery system smelters shall be deactivated.

Upon receipt of a permit application for the Kraft liquor trials, the West Central Regional Office will establish permit conditions for the reactivation of the existing smelters for a period not to exceed 1500 hours to allow for 500 hours of Kraft liquor trials during which time the smelters shall only operate while the permittee conducts the trials of the new gasification system using black liquor imported from a Kraft pulp mill.

Upon completion of the Kraft liquor trials, the existing smelters shall be made permanently inoperable. For the purposes of this permit "permanently inoperable" shall mean, at a minimum, that the smelters' fuel and black liquor delivery systems shall be disconnected. After having been made permanently inoperable, reactivation of the smelters may require that this permit be reviewed under the provisions of Section 9 VAC 5 Chapter 80 Article 8 of the State Regulations, Prevention of Significant Deterioration. The permittee shall notify the West Central Regional Office of Kraft Liquor trial events in accordance with Condition IV.C.5.d, and maintain records during the Kraft liquor trials in accordance with Condition IV.C.3.c.

(9 VAC 5-80-110, 9 VAC 5-80-1180, 40 CFR 63.863(c)(2), and Condition 15 of 2/7/03 permit)

- m. Emissions from the operation of the chemical recovery system shall not exceed the limits specified below:

|  |                                      |               |                                     |
|--|--------------------------------------|---------------|-------------------------------------|
| Particulate Matter                       | 0.015 gr/dscf @ 8% O <sub>2</sub>    | 16.6 tons/yr  | (9 VAC 5-50-260)                    |
| PM-10                                    | 0.015 gr/dscf @ 8% O <sub>2</sub>    | 16.6 tons/yr  | (9 VAC 5-50-260)                    |
| Sulfur Dioxide                           | 9 ppmvd @ 8% O <sub>2</sub>          | 10.3 tons/yr  | (9 VAC 5-50-260)                    |
| Nitrogen Oxides<br>(as NO <sub>2</sub> ) | 0.2 lbs/MMBtu<br>(30-day roll. Ave.) | 89.8 tons/yr  | (9 VAC 5-50-260)<br>(40 CFR 60.44b) |
| Carbon Monoxide                          | 300 ppmvd @ 8% O <sub>2</sub>        | 146.2 tons/yr | (9 VAC 5-50-260)                    |

Total Hydrocarbons 2.97 lb/Tbls 108.4 tons/yr (9 VAC 5-50-260)  
as Carbon (Tbls = Tons of black liquor solids) 40 CFR 63.862(c)(2),

Total Reduced Sulfur 5 ppmvd @ 8% O<sub>2</sub> 3.0 tons/yr (9 VAC 5-50-180)  
as Hydrogen Sulfide

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Condition number IV.C.1.g.

Not later than 30 days after notification of successful permanent operation of the new chemical recovery system, the permittee shall submit an approvable plan for a series of tests whose goal is to reduce the permitted emission rates listed above to a level representative of the actual emissions from the new chemical recovery system. Such tests shall commence not later than one year after start-up of the new chemical recovery system and shall be completed within two years after start-up of the new chemical recovery system unless otherwise approved in writing by DEQ. Not later than 90 days after the completion of the final test in the series, the permittee shall submit to DEQ proposed revised emission factors and the related revised emission limits. DEQ will consider the proposed revisions, and after negotiations with the permittee, amend this current permit as negotiated. Any requests for increases to the emissions limits listed above will be subject to appropriate permitting review.  
(9 VAC 5-80-110, 9 VAC 5-50-260 A, and Condition 16 of 2/7/03 permit)

- n. Visible emissions from the new chemical recovery system stack shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.  
(9 VAC 5-80-110, 9 VAC 5-50-80, 9 VAC 5-50-260 A, and Condition 17 of 2/7/03 permit)
- o. The new chemical recovery system flare shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours as determined by EPA Method 22 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110, 9 VAC 5-50-20 E, and Condition 18 of 2/7/03 permit)
- p. Visible emissions from fugitive emission points from the new chemical recovery system shall not exceed 10 percent opacity.  
(9 VAC 5-80-110, 9 VAC 5-50-20 E and Condition 19 of 2/7/03 permit)

- q. Except where this permit is more restrictive than the applicable requirement, the steam generation subsystem shall be operated in compliance with the requirements of 40 CFR 60, Subpart Db.  
(9 VAC 5-80-110, 9 VAC 5-50-400, 9 VAC 5-50-410, and Condition 24 of 2/7/03 permit)
- 2. Monitoring for the Chemical Recovery Equipment using Gasification**
- a. See section VI of this permit, for additional monitoring requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The measuring device shall be in operation when the media bin is being filled.
- The sulfur dioxide scrubber shall be equipped with a flow meter to indicate scrubber solution flow rate to the spray nozzles, a pH meter to indicate the pH of the scrubber solution as applied, and a device to continuously measure the differential pressure drop across the scrubber. These devices shall be provided with alarms to advise of low solution flow rate, low solution pH, and high/low differential pressure. The monitoring devices shall be in operation when the scrubber is operating.
- Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection.
- (9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-20 C, 9 VAC 5-50-260 A and Condition 7 of 2/7/03 permit)
- c. The sulfur dioxide scrubber flow meter, pH meter, and differential pressure monitoring device shall be observed by the permittee with a frequency as recommended by the scrubber manufacturer. The permittee shall keep a log of the observations and alarm conditions. Records of the alarm conditions shall include records of the corrective actions taken.  
(9 VAC 5-80-110, 9 VAC 5-50-50 H and Condition 8 of 2/7/03 permit)
- d. Continuous Emission Monitoring Systems (CEMS) shall be installed to measure and record the concentration of nitrogen oxides, and CO<sub>2</sub> or O<sub>2</sub> emitted from the Reformer Boiler stack. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with the requirements of 40 CFR 60.13, 40 CFR 60 Subpart Db and Appendices B and F or DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendices B and F.  
(9 VAC 5-80-110, 9 VAC 5-50-40, 40 CFR 60.48b, and Condition 21 of 2/7/03 permit)

- e. At least one time per calendar week, an observation for the presence of visible emissions from the new chemical recovery system, excluding the flare, shall be made. If visible emissions are observed, the permittee shall:
- (1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,
  - (2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment does not exceed 10 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 10 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the Pulp Mill Equipment resumes operation with visible emissions of 10 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.

(9 VAC 5-80-110 E )

- f. See section VII.B of this permit, for additional monitoring requirements for the semichemical combustion unit.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

**3. Recordkeeping for the Chemical Recovery Equipment using Gasification**

- a. See section VI of this permit, for additional recordkeeping requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. General: The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:
  - (1) Annual consumption of black liquor solids in units of tons, calculated monthly as the sum of each consecutive 12 month period.
  - (2) Daily, monthly, and annual throughput for each approved fuel for the Reformer Boiler. Each annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.  
(40 CFR 60.49b)

- (3) CEMS calibrations and calibration checks as required by Condition IV.C.2.d.
- (4) Sulfur dioxide scrubber log as required by Condition IV.C.2.c.
- (5) Visual emission log for the new chemical recovery system

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, 9 VAC 5-50-50, and Condition 25 of 2/7/03 permit)

- c. Kraft Liquor trials: The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with Condition IV.C.1.1 this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:

- (1) Records to demonstrate that the annual emissions increases of PM10, NOx, THC, and CO during any rolling 12 month period which includes the Kraft liquor trials are less than significant as defined in 9 VAC 5-80-1710.
- (2) Records to demonstrate that the 24-hour average impact in the James River Face Class I area from the net emissions increase in SO2 during the Kraft liquor trials is less than significant as defined in 9 VAC 5-80-1710.
- (3) Records of the maximum duration of Kraft liquor trials.
- (4) Records of the run time of the existing smelters during Kraft liquor trials

If the permittee determines that a significant increase has occurred, the permittee shall report this in writing to the West Central Regional Office within 14 days after making such a finding. The format and analysis method for the records required in a and b shall be submitted to and approved by the West Central Regional Office prior to the beginning of the Kraft liquor trials.

These records shall be available on site for inspection by the DEQ and shall be retained for five years from the end of the Kraft Liquor trials.

(9 VAC 5-80-110, 9 VAC 5-50-50 and Condition 26 of 2/7/03 permit)

- d. MACT II: See section VIID of this permit, for additional recordkeeping requirements for the semichemical combustion unit.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

#### 4. Testing for the Chemical Recovery Equipment using Gasification

- a. See section VI of this permit, for additional testing requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

- b. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested.  
(9 VAC 5-80-110, 9 VAC 5-50-30 F, and Condition 27 of 2/7/03 permit)
- c. Initial performance tests shall be conducted for nitrogen oxides from the Reformer Boiler stack to determine compliance with the emission limits contained in Condition IV.C.1.m. The tests shall be performed, and demonstrate compliance within 60 days after achieving the maximum production rate at which the Reformer Boiler will be operated but in no event later than 180 days after start-up of the Reformer Boiler. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the West Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the West Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110, 9 VAC 5-50-30, 9 VAC 5-80-1200, 9 VAC 5-50-410, 40 CFR 60.8, 40 CFR 60.44b (i), and Condition 20 of 2/7/03 permit)
- d. Performance evaluations of the continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place during the performance tests under 9 VAC 5-50-30 or within 30 days thereafter. The details of the performance evaluations are to be arranged with the West Central Regional Office at least 30 days prior to the beginning of the evaluations. Two copies of the performance evaluations report shall be submitted to the West Central Regional Office within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30-day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the West Central Regional Office.  
(9 VAC 5-80-110, 9 VAC 5-50-40, 40 CFR 60.13, and Condition 22 of 2/7/03 permit)
- e. See section VII.C of this permit, for additional testing requirements for the semichemical combustion unit.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

## 5. Reporting for the Chemical Recovery Equipment using Gasification

- a. See section VI of this permit, for additional reporting requirements for the evaporator system (REC04).  
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)
- b. The permittee shall submit written reports in accordance with General Condition XI.C.  
(9 VAC 5-80-110 F)
- c. The permittee shall furnish written reports to the West Central Regional Office of excess emissions emitted from the Reformer Boiler portion of the new chemical recovery system as monitored by the continuous monitoring system (CEMS) on a semi-annual basis, postmarked no later than the 30th day following the end of each semi-annual period. These reports shall include, but are not limited to the following information:

- (1) The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
- (3) The date and time identifying each period during which the CEMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- (4) When no excess emissions have occurred or the CEMS have not been inoperative, repaired or adjusted, such information shall be stated in that report.

(9 VAC 5-80-110, 9 VAC 5-50-50, 40 CFR 60.7, and Condition 23 of 2/7/03 permit)

- d. The permittee shall furnish written notification to the West Central Regional Office of:

### New Chemical Recovery system

- (1) The actual date on which construction of the new chemical recovery system commenced within 30 days after such date.
- (2) The anticipated start-up date of the new chemical recovery system postmarked not more than 60 days prior to such date.

- (3) The actual start-up date of the new chemical recovery system within 15 days after such date.
- (4) The actual date on which the new chemical recovery system is determined to be either in successful permanent operation or a failure within 15 days after such date.

Reformer Boiler

- (5) The actual date on which construction of the Reformer Boiler commenced within 30 days after such date.
- (6) The anticipated start-up date of the Reformer Boiler postmarked not more than 60 days nor less than 30 days prior to such date.
- (7) The actual start-up date of the Reformer Boiler within 15 days after such date.
- (8) The anticipated date of performance tests of the Reformer Boiler postmarked not less than 30 days prior to such date.
- (9) The anticipated date of CEMS performance evaluations postmarked not less than 30 days prior to such date.

Copies of the written notification referenced in items (5) through (8) above are to be sent to:

Associate Director  
Office of Air Enforcement (3AP10)  
U.S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

Kraft liquor trials

- (10) The anticipated start date of the Kraft liquor trials postmarked not less than 30 days prior to such date.
  - (11) The actual start date of the Kraft liquor trials within 15 days after such date.
  - (12) The actual end date of the Kraft liquor trials within 15 days after such date.
  - (13) The actual latest end date of the smelters in support of the Kraft liquor trials within 15 days after such date.
- (9 VAC 5-80-110, 9 VAC 5-50-50, and Condition 28 of 2/7/03 permit)

(14) The permittee shall submit a report if any “significant increase” in emissions occurred during the Kraft liquor trials in accordance with Condition IV.C.3.c  
(9 VAC 5-80-110)

- e. See section VII.E of this permit, for additional reporting requirements for the semichemical combustion unit.  
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

#### **D. Medium Mill Equipment**

The Medium Mill Equipment includes, but is not limited to: No. 1 Paper Machine (MM01), No. 1 PM Winder (MM02), No. 3 Paper Machine (MM03), No. 3 PM Winder (MM04), Broke and Whitewater Storage (MM05), Lubrication Oil Systems (MM06), Additive Storage Tanks (MM07), Refiners (MM08), Tertiary Cleaners (MM09)

##### **1. Limitations for the Medium Mill Equipment**

Visible emissions from the Medium Mill Equipment shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60% opacity. Failure to meet the requirements of this condition because of the presence of water vapor shall not be a violation of this condition.  
(9 VAC 5-80-110 and 9 VAC 5-40-80)

##### **2. Monitoring for the Medium Mill Equipment**

At least one time per calendar week, an observation for the presence of visible emissions from the Medium Mill Equipment shall be made. If visible emissions are observed, the permittee shall:

- (1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,
- (2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.

(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

### **3. Recordkeeping for the Medium Mill Equipment**

- a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to: Visual emission log for the Medium Mill Equipment. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years. (9 VAC 5-80-110)
- b. The permittee, per 40 CFR 60, Subpart Kb Section 60.116b (a), (b) and (d), shall keep readily accessible records showing the dimensions, and an analysis showing the capacity, of the Whitewater Tank portion of the No 3 Paper Machine (MM03) and shall notify the West Central Regional Office within 30 days if the maximum true vapor pressure of the stored product exceeds 0.75 psi. (9 VAC 5-80-110, 9 VAC 5-50-400, and 40 CFR 60.116b)

### **4. Testing for the Medium Mill Equipment**

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-40-30 and 9 VAC 5-80-110)

### **5. Reporting for the Medium Mill Equipment**

The permittee shall submit written reports in accordance with General Condition XI.C.  
(9 VAC 5-80-110 F)

## **E. Linerboard Mill Equipment**

The Linerboard Mill Equipment includes, but is not limited to: Recycled Fiber Facility (LBD01), Starch Silo (LBD02), Cooling Tower (LBD03), No. 4 Paper Machine (LBD04), Lubrication systems (LBD05), Glycol-base heating system (LBD06), OCC Bale Storage Area (LBD07), and OCCR Storage Bunker (LBD08)

### **1. Limitations for the Linerboard Mill Equipment**

- a. Particulate emissions from the starch silo shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.  
(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC-50-260 A and Condition 4 of 6/30/95 Permit, as amended 2/26/03)

- b. Emissions from the operation of the recycled paper processing facility (LBD01) and paper machine No. 4 (LBD04) shall not exceed the limits specified below:

|                            | <u>lbs/hr</u> | <u>tons/yr</u> |
|----------------------------|---------------|----------------|
| Volatile Organic Compounds | 9.16          | 35.81          |

(9 VAC 5-80-110, 9 VAC 5-50-260 A and Condition 16 of 6/30/95 Permit, as amended 2/26/03)

- c. Visible emissions from all Linerboard Mill equipment, except the starch silo, shall not exceed 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this condition.  
(9 VAC 5-80-110 and 9 VAC 5-50-80)

- d. Visible emissions from the starch silo fabric filter shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-80-110, 9 VAC 5-50-260 A, 9 VAC 5-50-20, and Condition 22 of 6/30/95 permit, as amended 2/26/03)

- e. In order to minimize the duration and frequency of excess emissions due to malfunctions of Linerboard Mill Equipment or air pollution control equipment, the permittee shall:

(1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

(2) Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns

(9 VAC 5-80-110, 9 VAC 5-80-1180 and Condition 31 of the 6/30/95 Permit, as amended 2/26/03)

## 2. **Monitoring for the Linerboard Mill Equipment**

At least one time per calendar week, an observation for the presence of visible emissions from the Linerboard Mill Equipment shall be made. If visible emissions are observed, the permittee shall:

(1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from all Linerboard Mill

equipment, except the starch silo, does not exceed 20 percent opacity. For the starch silo, the VEE shall assure that the visible emissions do not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed the relevant standard (that is, 20 percent for all Linerboard Mill equipment, except the starch silo, and 5 percent of the starch silo) the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of less than or equal to the relevant standard.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.

(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

### **3. Recordkeeping for the Linerboard Mill Equipment**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:

- (1) Visual emission log for the Linerboard Mill Equipment.  
(9 VAC 5-80-110 E)
- (2) An annual material balance for the recycled paper processing facility (LBD01) and paper machine No. 4 (LBD04) additives including the additive names, the annual usage, the VOC content, the VOC emitted fraction, and the total annual VOC emissions. The emissions shall be calculated as the sum of each consecutive 12 month period.  
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 24.a. of 6/30/95 Permit, as amended 2/26/03)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

### **4. Testing for the Linerboard Mill Equipment**

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)

**5. Reporting for the Linerboard Mill Equipment**

The permittee shall submit written reports in accordance with General Condition X.I.C.

(9 VAC 5-80-110 F)

**F. Wastewater System Equipment**

The Wastewater System Equipment includes, but is not limited to: the Industrial Wastewater Treatment System (WW02)

**1. Limitations for the Wastewater System Equipment**

a. Particulate Matter emissions from the lime storage silo shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when receiving lime.

(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 5 of 7/10/02 Permit)

b. Visible emissions from the fabric filter shall not exceed 5 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 10 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-110, 9 VAC 5-50-260, and Condition 4 of 7/10/02 Permit)

c. The yearly usage of lime shall not exceed 20,000 tons, calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110, and Condition 3 of 7/10/02 Permit)

d. The permittee shall furnish notification to the Director, West Central Regional Office, of the intention to shutdown or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

(1) Identification of the specific process to be taken out of service, as well as its location, and registration number;

(2) The expected length of time that the air pollution control equipment will be out of service;

(3) The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;

(4) Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-80-110, 9 VAC 5-20-180 and Condition 9 of the 7/10/02 Permit)

- e. In order to minimize the duration and frequency of excess emissions due to malfunctions of Wastewater System Equipment or air pollution control equipment, the permittee shall:
- (1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance to air pollution control equipment. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request;
  - (2) Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns;
  - (3) Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum;
  - (4) 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, 9 VAC 5-50-20, and Condition 15 of 7/10/02 Permit)

## **2. Monitoring for the Wastewater System Equipment**

At least one time per calendar week, an observation for the presence of visible emissions from the lime silo shall be made. If visible emissions are observed, the permittee shall:

- a. take timely corrective action such that the equipment resumes operation with no visible emissions, or,
- b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the lime silo does not exceed 5 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 5 percent the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of less than or equal to the relevant standard.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week,

it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.

(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

### **3. Recordkeeping for the Wastewater System Equipment**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the West Central Regional Office. These records shall include, but are not limited to:

- a. Visual emission log for the lime silo.  
(9 VAC 5-80-110 E)
- b. The annual consumption of lime, in tons, calculated monthly as the sum of the previous consecutive twelve (12) months' production.  
(9 VAC 5-80-110, 9 VAC 5-50-50, and Condition 8 of 7/10/02 Permit)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110)

### **4. Testing for the Wastewater System Equipment**

- a. Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted by the permittee on the following equipment: lime storage silo equipped with a vent baghouse filter. Each test shall consist of 10 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 Compliance Manager or Director, West Central Regional Office. 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 West Central Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. One (1) copy of the test result shall be submitted to the Compliance Manager, West Central Regional Office and shall conform to the test report format enclosed with this permit.  
(9 VAC 5-80-110, 9 VAC 5-50-30, and Condition 7 of 7/10/02 Permit)
- b. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)

**5. Reporting for the Wastewater System Equipment**

The permittee shall submit written reports in accordance with General Condition XI.C.

(9 VAC 5-80-110 F)

**V. MACT Requirements for Startup, Shutdown, and Malfunction Plan**

1. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall operate and maintain any affected facility under the provisions 40 CFR 63 Subpart S and 40 CFR 63 Subpart MM, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions at least to the levels required by this permit and the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution.
  - a. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in Condition V.2.
  - b. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the West Central Regional Office, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures (including the startup, shutdown, and malfunction plan required in Condition V.2), review of operation and maintenance records, and inspection of the source.

(9 VAC 5-80-110, 40 CFR 63.6(e)(1), 40 CFR 63.6(e)(2))

2. 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 provisions of 40 CFR 63 Subpart S and 40 CFR 63 Subpart MM. The portion of the plan covering affected facilities subject to 40 CFR 63 Subpart MM shall be developed by the permittee by the compliance date as specified in condition IV.B.1.b for the chemical recovery system using smelters, and by the startup date for the new chemical recovery system. The plan shall be incorporated by reference into the permittee's Title V permit. (See Condition V.3.) 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 provisions 40 CFR 63 Subpart S and 40 CFR 63 Subpart MM;
  - 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))
3. 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 V.2.  
(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(ii))
4. 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 recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator shall keep records of these events as specified in 40 CFR 63.10(b), 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 owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual report required in Condition XI.C.3.  
(9 VAC 5-80-110 and 40 CFR 63.6 (e)(3)(iii))
5. 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 permittee shall record the actions taken for that event and shall report such actions as specified in 40 CFR 63.6 (e)(3)(iv).  
(9 VAC 5-80-110 and 40 CFR 63.6 (e)(3)(iv))
6. The West Central Regional Office 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))

7. 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 40 CFR 63.6(e)(3)(viii))

## **VI. MACT I (40 CFR 63 Subpart S) Requirements**

### **A. MACT I Limitations**

1. For the purposes of this section of this permit, all terms used herein shall have the meaning given them in 40 CFR 63 Subpart A and 40 CFR 63 Subpart S.  
(9 VAC 5-80-110 and 40 CFR 63.441)
2. Unless otherwise required in this permit, the permittee shall comply with the requirements of 40 CFR Part 63 Subpart A, General Provisions, as indicated in 40 CFR Part 63 Subpart S, Table 1, General Provisions Applicability to Subpart S.  
(9 VAC 5-80-110 and 40 CFR 63.440(g))
3. The permittee shall control the total HAP emissions from the Low Volume, High Concentration system as specified in Conditions VI.A.4 and VI.A.5. The Low Volume, High Concentration system (LVHC) means the collection of equipment including the digester and evaporator systems, and any other equipment serving the same function as those previously listed.  
(9 VAC 5-80-110, 40 CCR 63.441, and 40 CFR 63.443(b))
4. The LVHC equipment systems shall be enclosed and vented into a closed-vent system and routed to a control device that meets the control requirements specified in Condition VI.A.5. The enclosures and closed-vent system shall meet the design requirements specified in Condition VI.A.7.  
(9 VAC 5-80-110, and 40 CFR 63.443(c))
5. The control device used to reduce total HAP emissions from the LVHC system shall use one of the following:
  - (a) a boiler by introducing the HAP emission stream with the primary fuel or into the flame zone; or

(b) a boiler with a heat input capacity greater than or equal to 150 million British thermal units per hour by introducing the HAP emission stream with the combustion air.

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

6. Periods of excess emissions reported under Condition XI.C.3 shall not be a violation of Condition VI.A.3 provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction as specified under section V of this permit) divided by the total process operating time in a semi-annual reporting period does not exceed one percent.

(9 VAC 5-80-110 and 40 CFR 63.443(e))

7. Each enclosure and closed-vent system specified in Condition VI.A.4 for capturing and transporting vent streams that contain HAP shall meet the design requirements specified in paragraphs (b) through (d) of 40 CFR 63.450.

(9 VAC 5-80-110 and 40 CFR 63.450(a))

## **B. MACT I Monitoring and Testing**

1. Each enclosure or closed-vent system specified in Condition VI.A.4 shall comply with the following requirements specified in 40 CFR 63.453(k)(1) through 40 CFR 63.453(k)(6):

- a. 30-day visual inspections, specified in 40 CFR 63.453(k)(1), 40 CFR 63.453(k)(2), 40 CFR 63.453(k)(5)
- b. initial and annual positive pressure section testing, specified in 40 CFR 63.453(k)(3), performed in accordance with the test methods and procedures specified in 40 CFR 63.457 (d),
- c. initial and annual negative pressure section testing, specified in 40 CFR 63.453(k)(4), performed in accordance with the test methods and procedures specified 40 CFR 63.457(e), and
- d. corrective actions, specified in 40 CFR 63.453(k)(6).

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

2. The permittee shall control emissions from the LVHC system as specified in Condition VI.A.3. Except as provided in Condition VI.A.6, failure to perform procedures required by section VI of this permit 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))

### **C. MACT I Recordkeeping**

1. The permittee shall comply with the recordkeeping requirements of 40 CFR 63.10 of 40 CFR 63 Subpart A, as shown in 40 CFR 63 Subpart S, Table 1, General Provisions Applicability to Subpart S, and the requirements specified in Conditions VI.C.2 and VI.C.3 for the monitoring parameters specified in subsection VI.B of this permit.  
(9 VAC 5-80-110 and 40 CFR 63.454(a))
2. For each applicable enclosure opening, closed-vent system, and closed collection system specified in Condition VI.A.4, the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the information listed in 40 CFR 63.454(b)(1) through 40 CFR 63.454(b)(12) for each inspection.  
(9 VAC 5-80-110 and 40 CFR 63.454(b))
3. The permittee shall meet the requirements specified in Condition VI.C.1 for any new affected process equipment or pulping process condensate stream that becomes subject to the standards in this 40 CFR 63, Subpart S due to a process change or modification.  
(9 VAC 5-80-110 and 40 CFR 63.454(d))

### **D. MACT I Reporting**

1. The permittee shall comply with the reporting requirements of 40 CFR Part 63 Subpart A as specified in 40 CFR Part 63 Subpart S, Table 1, General Provisions and Applicability to Subpart S and all of the requirements specified in subsection VI.D of this permit.  
(9 VAC 5-80-110 and 40 CFR 63.455(a))
2. The permittee shall meet the requirements specified in Condition VI.D.1 upon startup of any new affected process equipment or pulping process condensate stream that becomes subject to the standards in this 40 CFR 63, Subpart S due to a process change or modification.  
(9 VAC 5-80-110 and 40 CFR 63.455(d))

## **VII. MACT II (40 CFR 63 Subpart MM) Requirements**

### **A. MACT II Limitations**

1. For the purposes of this section of this permit, all terms used herein shall have the meaning given them in 40 CFR 63 Subpart A and 40 CFR 63 Subpart MM.  
(9 VAC 5-80-110 and 40 CFR 63.861)
2. Unless otherwise required in this permit, the permittee shall comply with the requirements of 40 CFR Part 63 Subpart A, General Provisions, as indicated in 40 CFR Part 63 Subpart MM, Table 1, General Provisions Applicability to Subpart MM.  
(9 VAC 5-80-110 and 40 CFR 63.860(c))

3. The permittee must ensure that:
  - (a) The concentration of gaseous organic HAP, as measured by total hydrocarbons reported as carbon, discharged to the atmosphere from the semichemical combustion unit is less than or equal to 2.97 lb/ton of black liquor solids fired; or
  - (b) The gaseous organic HAP emissions from the semichemical combustion unit, as measured by total hydrocarbons reported as carbon, are reduced by at least 90 percent prior to discharge of the gases to the atmosphere.

Semichemical combustion unit means any equipment used to combust or pyrolyze black liquor at stand-alone semichemical pulp mills for the purpose of chemical recovery.

(9 VAC 5-80-110, 40 CFR 63.862(c)(2), and 40 CFR 63.861)

4. Except during the Kraft Liquor Trials as specified in condition IV.C.1.1, the permittee must comply with the conditions of section VII of this permit no later than the compliance date as specified in condition IV.B.1.b for the chemical recovery system using smelters. The permittee must comply with the conditions of section VII of this permit upon startup of the new chemical recovery system.  
(9 VAC 5-80-110 and 40 CFR 63.863(a))

## **B. MACT II Monitoring**

1. The permittee must monitor the parameters as approved by the Administrator or his/her delegate using the methods and procedures in Condition VII.B.2.  
(9 VAC 5-80-110 and 40 CFR 63.864(a)(5))
2. The permittee for an affected source or process unit seeking to demonstrate compliance with the standards in Condition VII.A.3 using a control technique other than those listed in 40 CFR 63.864(a)(1) through (3) must provide to the Administrator or his/her delegate a monitoring plan that includes a description of the control device, test results verifying the performance of the control device, the appropriate operating parameters that will be monitored, and the permittee for the affected source or process unit must install, calibrate, operate, and maintain the monitor(s) in accordance with the monitoring plan approved by the Administrator or his/her delegate. The permittee must include in the information submitted to the Administrator or his/her delegate proposed performance specifications and quality assurance procedures for the monitors. The Administrator or his/her delegate may request further information and will approve acceptable test methods and procedures.

The permittee shall submit the monitoring plan to the Administrator or his/her delegate at least 60 days before the initial performance test is scheduled to begin. A copy of this submittal, and any follow-up submittals related to monitoring plan approval, shall also be sent to the West Central Regional Office. The permittee may

submit the monitoring plan well in advance of the submittal date specified above to ensure a timely review by the Administrator or his/her delegate in order to meet the compliance demonstration date specified in Condition VII.C.1. This permit may require amendment or modification to incorporate provisions of the approved monitoring plan.

(9 VAC 5-80-110, 40 CFR 63.865(f), and 40 CFR 63.8(f))

### **C. MACT II Testing**

1. The permittee is required to conduct an initial performance test using the test methods and procedures listed in 40 CFR 63.7 and 40 CFR 63.865.  
(9 VAC 5-80-110 and 40 CFR 63.864(b)(1))
2. Determination of operating ranges.
  - (a) During the initial performance test required in Condition VII.C.1, the permittee must establish operating ranges for the monitoring parameters in Condition VII.B.2; or
  - (b) The permittee may base operating ranges on values recorded during previous performance tests or conduct additional performance tests for the specific purpose of establishing operating ranges, provided that test data used to establish the operating ranges are or have been obtained using the test methods required in 40 CFR 63 Subpart MM. The permittee must certify that all control techniques and processes have not been modified subsequent to the testing upon which the data used to establish the operating parameter ranges were obtained.

(9 VAC 5-80-110 and 40 CFR 63.864(b))

3. On-going compliance provisions.

The compliance date for the Recovery Smelter No. 1 (REC01) and the Recovery Smelter No. 2 (REC02) is the compliance date as specified in condition IV.B.1.b. The compliance date for the new chemical recovery system is the startup date for the system as defined in 40 CFR 63.861.

  - (a) After the compliance date, the permittee is required to implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared under section V of this permit when any 3-hour average value is outside the range of parameter values established in Condition VII.C.2.  
(9 VAC 5-80-110 and 40 CFR 63.864 (c)(1)(iv))
  - (b) After the compliance date, the permittee is in violation of the standards of Condition VII.A.3 if the following monitoring exceedance occurs:

when six or more 3-hour average values within any 6-month reporting period are outside the range of parameter values established in Condition VII.C.2.

(9 VAC 5-80-110 and 40 CFR 63.864 (c)(2)(v))

- (c) For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period.  
(9 VAC 5-80-110 and 40 CFR 63.864 (c)(3))

#### **D. MACT II Recordkeeping**

1. Startup, shutdown, and malfunction plan.

The permittee must develop and implement a written plan as described in section V of this permit that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and control systems used to comply with the standards. In addition to the information required in section V of this permit, the plan must include the following requirements:

- (a) Procedures for responding to any process parameter level that is inconsistent with the level(s) established under Condition VII.C.2, including the following procedures:
- (1) Procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; and
  - (2) Corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance.
- (b) The following schedules:
- (1) A maintenance schedule for each control technique that is consistent with, but not limited to, the manufacturer's instructions and recommendations for routine and long-term maintenance; and
  - (2) An inspection schedule for each continuous monitoring system required under Condition VII.B.1 to ensure, at least once in each 24-hour period, that each continuous monitoring system is properly functioning.

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

2. The permittee must maintain records of any occurrence when corrective action is required under Condition VII.C.3(a), and when a violation is noted under Condition VII.C.3(b).

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

3. In addition to the general records required by 40 CFR 63.10(b)(2), the permittee must maintain records of the following information
    - (a) Records of black liquor solids firing rates in units of tons/day;
    - (b) Records of parameter monitoring data required under section VII.B of this permit, including any period when the operating parameter levels were inconsistent with the levels established during the initial performance test, with a brief explanation of the cause of the deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken;
    - (c) Records and documentation of supporting calculations for compliance determinations made under VII.C; and
    - (d) Records of monitoring parameter ranges established.
- (9 VAC 5-80-110 and 40 CFR 63.866(c))

#### **E. MACT II Reporting**

1. Notifications. The permittee must submit the applicable notifications from 40 CFR 63 Subpart A, General Provisions, as specified in 40 CFR 63 Subpart A, Table 1, General Provisions Applicability to Subpart MM.  
(9 VAC 5-80-110 and 40 CFR 63.867(a))
  2. Excess emissions report.  
The permittee must report quarterly if measured parameters meet any of the conditions specified in Condition VII.C.3(a) or Condition VII.C.3(b). This report must contain the information specified in 40 CFR 63.10(c) as well as the number and duration of occurrences when the source met or exceeded the conditions in Condition VII.C.3(a), and the number and duration of occurrences when the source met or exceeded the conditions in Condition VII.C.3(b). Reporting excess emissions below the violation thresholds of Condition VII.C.3 does not constitute a violation of the applicable standard.
    - (a) When no exceedances of parameters have occurred, the permittee must submit a semiannual report stating that no excess emissions occurred during the reporting period.
    - (b) The permittee for an affected source or process unit subject to the requirements of 40 CFR 63 Subpart MM and 40 CFR 63 Subpart S may combine excess emissions and/or summary reports for the mill.
- (9 VAC 5-80-110 and 40 CFR 63.867(c))

**VIII. Facility Wide Conditions**

**A. Facility Wide Existing source standard for visible emissions**

Unless otherwise specified in this permit, the permittee shall not cause or permit to be discharged into the atmosphere from any affected facility (constructed, modified or relocated prior to March 17, 1972, or reconstructed prior to December 10, 1976) any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. (9 VAC 5-40-80 and 9 VAC 5-80-110)

**B. Facility Wide New source standard for visible emissions**

Unless otherwise specified in this permit, on or after the date on which the performance test required to be conducted by 9 VAC 5-50-30 is completed, the permittee shall not cause or permit to be discharged into the atmosphere from any affected facility (constructed, modified or relocated after March 17, 1972, or reconstructed on or after December 10, 1976) any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section. (9 VAC 5-50-80 and 9 VAC 5-80-110)

**C. Facility Wide Testing**

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. (9 VAC 5-40-30, 9 VAC 5-50-30 and 9 VAC 5-80-110)

**IX. 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 No. | Emission Unit Description | Citation<br>9 VAC 5-80-720__ | Pollutant(s) Emitted (9 VAC 5-80-720 B) | Rated Capacity<br>(9 VAC 5-80-720 C) |
|-------------------|---------------------------|------------------------------|---|--------------------------------------|
| PWR02             | Process Water Treatment   | A                            | ---                                     | ---                                  |
| PWR03             | Boiler Water Treatment    | A                            | ---                                     | ---                                  |
| PWR07             | Lube Oil Reservoirs       | C                            |   | < 1000 gal each                      |
| PWR08             | Fly Ash Handling          | B                            | PM10                                    | ---                                  |

|        |   |   |           |     |
|--------|---|---|-----------|-----|
| PWR09  | Coal Handling                               | B | PM10      | --- |
| PWR10  | Diesel Fuel System                          | B | VOC       | --- |
| CH01   | Chip receiving, storage, and conveying      | B | PM10, VOC | --- |
| CH02   | Chip screening and conveying                | B | PM10, VOC | --- |
| CH03   | Screened Chip conveying                     | B | PM10, VOC | --- |
| PULP01 | Pulp mill chip storage and conveying system | B | PM10, VOC | --- |
| PULP05 | Refiners                                    | B | VOC       | --- |
| PULP06 | DLK Pulp System                             | B | VOC, HAPS | --- |
| PULP07 | Secondary Fiber System                      | B | VOC, HAPS | --- |
| PULP08 | Finished Liquor Storage Tank                | B | VOC, HAPS | --- |
| REC07  | Liquor – Making System                      | B | VOC, HAPS | --- |
| REC08  | Caustic Storage System                      | B | PM10      | --- |
| REC09  | Condensate Storage System                   | B | VOC, HAPS | --- |
| REC10  | Lube Oil Systems                            | B | VOC       | --- |
| REC11  | Soda Ash System                             | B | VOC, HAPS | --- |
| MM02   | No. 1 PM Winder                             | B | VOC, HAPS | --- |
| MM04   | No. 3 PM Winder                             | B | VOC, HAPS | --- |
| MM05   | Broke and Whitewater Storage                | B | VOC, HAPS | --- |
| MM06   | Lubrication Oil Systems                     | B | VOC       | --- |
| MM07   | Additive Storage Tanks                      | B | VOC       | --- |
| MM08   | Refiners                                    | B | VOC, HAPS | --- |
| MM09   | Tertiary Cleaners                           | B | VOC, HAPS | --- |
| LBD01  | Recycled Fiber Facility                     | B | VOC, HAPS | --- |
| LBD02  | Starch Silo                                 | B | PM10      | --- |
| LBD03  | Cooling Tower                               | A | ---       | --- |
| LBD05  | Lubrication System                          | B | VOC       | --- |
| LBD06  | Glycol-Based Heating System                 | B | VOC       | --- |
| LBD07  | OCC Bale Storage Area                       | B | PM10      | --- |
| LBD08  | OCCR Storage Bunker                         | B | PM10      | --- |
| WW01   | Sanitary Wastewater Treatment               | B | VOC       | --- |
| MIS03  | Landfill Activities                         | B | PM10      | --- |
| MIS04  | Solvent-based Parts Washers                 | B | VOC, HAPS | --- |

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.

**X. Permit Shield & 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 which have been specifically identified as being not applicable to this permitted facility:

| Citation                       | Title of Citation   | Description of Applicability   |
|--------------------------------|---|--|
| 40 CFR 60 Subpart D            | Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After 7/17/71 | No. 4 Boiler ~ Construction Date prior to applicability date;<br>No. 5 Boiler ~ rated capacity on fossil fuels considered less than 250 MMBtu/hr         |
| 40 CFR 60 Subparts Db          | Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units                           | The pulse heaters in the new chemical recovery system are considered to meet the definition of process heaters and therefore are not subject to NSPS Db. |
| 40 CFR 60 Subparts Dc          | Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units                           | The pulse heaters in the new chemical recovery system are considered to meet the definition of process heaters and therefore are not subject to NSPS Dc. |
| 9 VAC 5-40-300                 | Standard for Volatile Organic Compounds   | Standard does not currently apply to Bedford County  |
| 9 VAC 5-40-310                 | Standard for Nitrogen Oxides  | Standard does not currently apply to Bedford County  |
| 9 VAC 5 Chapter 40, Article 17 | Emission Standards for Woodworking Operations   | In accordance with the definitions in the Article, Chip Handling is not considered a "Woodworking operation"   |
| 40 CFR 60 Subpart BB           | Standards of Performance for Kraft Pulp Mills   | Subpart does not apply to Semicheical Pulp Mills   |

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 (i) 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)

## **XI. General Conditions**

### **A. 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)

### **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 a timely and complete renewal application consistent with 9 VAC 5-80-80, has been submitted, to the Department, by the owner, 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)

### **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:
    - (1) Exceedance of emissions limitations or operational restrictions;
    - (2) 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,

(3) 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)

#### **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 incidence 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.

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)

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

The permittee shall notify the Director, West Central Region within four daytime business hours, after a deviation is discovered 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 XI.C.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

#### **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 such failure or malfunction is discovered, notify the Director, West Central Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks 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, West Central 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 two week written notification.
2. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:
  - a. No. 4 Boiler,

- b. No. 5 Boiler,
  - c. No. 6 Boiler, and
  - d. The Chemical Recovery Equipment using Gasification
3. 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 semiannual period. All semiannual reports shall be postmarked by the 30th day following the end of each calendar semiannual period 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.
4. All emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C must make written reports within 14 days of the malfunction occurrence.

(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)

#### **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)

## **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)

## **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)

## **J. Permit Action for Cause**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(9 VAC 5-80-110 G & L, 9 VAC 5-80-240 and 9 VAC 5-80-260)

2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;

b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;

c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;

d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

- e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;
- f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);
- g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

#### **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)

#### **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)

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

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. 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)

#### **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 5-40-90 and 9 VAC 5-50-90)

#### **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 5-40-20 E, and 9 VAC 5-50-20 E)

#### **P. 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)

#### **Q. 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)

#### **R. 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)

#### **S. 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)

#### **T. 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 conditions of paragraph 2 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 emissions 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, telegraph, or any other method that allows the permittee to comply with the deadline. The notice fulfills the requirement 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 requirements 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. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

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)

#### **U. 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 5-80-260)

#### **V. 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)

#### **W. 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)

#### **X. 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)

#### **Y. Asbestos demolition and renovation requirements**

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants, Subpart M the National Emission Standards for Asbestos as it applies to demolition and renovation, (40 CFR 61.145), insulation materials (40 CFR 61.148), and waste disposal (40 CFR 61.150)

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

## **XII. NO<sub>x</sub> Budget Trading Program Requirements**

### **A. NO<sub>x</sub> Budget Permit General Conditions**

1. A review of the air emission units included in this permit approval has determined that the equipment listed in the following table meets the definition of a NO<sub>x</sub> Budget Unit and falls subject to the NO<sub>x</sub> Budget emission limitations under 9 VAC 5-140-40 or for opt-in sources 9 VAC 5-140-800. As required by 9 VAC 5-140-200 A, each NO<sub>x</sub> Budget source is required to have a federally enforceable permit. This section of the document represents the NO<sub>x</sub> Budget permit.  
(9 VAC 5-140-40)
2. The NO<sub>x</sub> Budget permit will be administrated by the VADEQ under the authority of 9 VAC 5-80-50 et seq., and 9 VAC 5-140-10 et seq.  
(9 VAC 5-140-200 A)
3. The following air emission units have been determined to meet the applicability requirements as provided in 9 VAC 5-140-40 A.1 and A.2. Units that do not meet this definition, are not defined as 25-Ton Exemption Units and are not permanently shutdown can be included in the NO<sub>x</sub> Budget Trading program as “opt-in” air emission sources.  
(9 VAC 5-140-40 A)

| <b>Facility NO<sub>x</sub> Budget Units</b> |                       |                                  |   |  |
|---|-----------------------|----------------------------------|---|--|
| <b>Facility Unit ID</b>                     | <b>Unit NATS Code</b> | <b>Unit Name and description</b> | <b>Maximum Heat Capacity (MMBtu/hr)</b> | <b>Maximum Generation Capacity (megawatts)</b> |
| (PWR04)                                     | 880035000004          | PWRBLR #4                        | 284.                                    | Not Applicable                                 |
| (PWR06)                                     | 880035000006          | PWRBLR #6                        | 284.9                                   | Not Applicable                                 |

This NO<sub>x</sub> Budget permit will become effective on May 31, 2004.  
(9 VAC 5-140-240.1)

### **B. Standard Requirements**

1. Continuous Monitoring requirements.
  - a. The owners and operators and, to the extent applicable, the NO<sub>x</sub> authorized account representative of each NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall comply with the applicable monitoring requirements of 9 VAC 5-140-700 et seq.  
(9 VAC 5-140-60 B.1)
  - b. The emissions measurements recorded and reported in accordance with the applicable sections of 9 VAC 5-140-700 et seq., 40 CFR 75 Subpart H, and 40

CFR 96 Subpart H shall be used to determine compliance by the unit with the NO<sub>x</sub> Budget emissions limitations in this section. The following approved methods will be used to calculate NO<sub>x</sub> Control Period and annual emission rates: (9 VAC 5-140-60 B.2)

| Pollutant or Stack Parameter                 | CEM Monitoring Methods  |
|--|---|
| NO <sub>x</sub> and NO <sub>x</sub> related. | As referenced by NO <sub>x</sub> Budget Trading Program Regulations (reference 9 VAC 5-140-700 et seq., 40 CFR 96 Subpart H, and 40 CFR 75 Subpart H) |

2. Nitrogen oxides requirements.

- a. The owners and operators of each NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall hold NO<sub>x</sub> allowances available for compliance deductions under 9 VAC 5-140-540 A, B, E, or F, as of the NO<sub>x</sub> allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NO<sub>x</sub> emissions for the control period from the unit, as determined in accordance with Article 8 (9 VAC 5-140-700 et seq.), plus any amount necessary to account for actual utilization under 9 VAC 5-140-420 E for the control period or to account for excess emissions for a prior control period under 9 VAC 5-140-540 D or to account for withdrawal from the NO<sub>x</sub> Budget Trading Program, or a change in regulatory status, of a NO<sub>x</sub> Budget opt-in unit under 9 VAC 5-140-860 or 9 VAC 5-140-870.  
(9 VAC 5-140-60 C.1)
- b. Each ton of nitrogen oxides emitted in excess of the NO<sub>x</sub> Budget emissions limitation shall constitute a separate violation of the Clean Air Act, and applicable Virginia Air Pollution Control law.  
(9 VAC 5-140-60 C.2)
- c. A NO<sub>x</sub> Budget unit shall be subject to the requirements under 9 VAC 5-140-60 C.1 starting on the later of May 31, 2004 or the date on which the unit commences operation.  
(9 VAC 5-140-60 C.3)
- d. NO<sub>x</sub> allowances shall be held in, deducted from, or transferred among NO<sub>x</sub> Allowance Tracking System accounts in accordance with 9 VAC 5-140-400 et seq., 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., and 9 VAC 5-140-800 et seq.  
(9 VAC 5-140-60 C.4)
- e. A NO<sub>x</sub> allowance shall not be deducted, in order to comply with the requirements under 9 VAC 5-140-60 C.1 for a control period in a year prior to the year for which the NO<sub>x</sub> allowance was allocated.  
(9 VAC 5-140-60 C.5)

- f. A NO<sub>x</sub> allowance allocated by the permitting authority or the administrator under the NO<sub>x</sub> Budget Trading Program is a limited authorization to emit one ton of nitrogen oxides in accordance with the NO<sub>x</sub> Budget Trading Program. No provision of the NO<sub>x</sub> Budget Trading Program, the NO<sub>x</sub> Budget permit application, the NO<sub>x</sub> Budget permit, or an exemption under 9 VAC 5-140-50 and no provision of law shall be construed to limit the authority of the United States or the State to terminate or limit such authorization.  
(9 VAC 5-140-60 C.6)
  - g. A NO<sub>x</sub> allowance allocated by the permitting authority or the administrator under the NO<sub>x</sub> Budget Trading Program does not constitute a property right.  
(9 VAC 5-140-60 C.7)
  - h. Upon recordation by the administrator under 9 VAC 5-140-500 et seq., 9 VAC 5-140-600 et seq., or 9 VAC 5-140-800 et seq., every allocation, transfer, or deduction of a NO<sub>x</sub> allowance to or from a NO<sub>x</sub> Budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NO<sub>x</sub> Budget permit of the NO<sub>x</sub> Budget unit by operation of law without any further review.  
(9 VAC 5-140-60 C.8)
3. Excess emissions requirements.
- a. The owners and operators of a NO<sub>x</sub> Budget unit that has excess emissions in any control period shall:
    - 1. Surrender the NO<sub>x</sub> allowances required for deduction under 9 VAC 5-140-540 D 1; and
    - 2. Pay any fine, penalty, or assessment or comply with any other remedy imposed under 9 VAC 5-140-540 D 3.  
(9 VAC 5-140-60 D)

### **C. Recordkeeping and Reporting Requirements.**

The following requirements concerning recordkeeping and reporting shall apply:

- 1. Unless otherwise provided, the owners and operators of the NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time prior to the end of five years, in writing by the permitting authority or the administrator. (9 VAC 5-140-60 E.1)
  - a. The account certificate of representation for the NO<sub>x</sub> authorized account representative for the source and each NO<sub>x</sub> Budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 9 VAC 5-140-130; provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a

new account certificate of representation changing the NO<sub>x</sub> authorized account representative.

(9 VAC 5-140-60 E.1)

- b. All emissions monitoring information, in accordance with 9 VAC 5-140-700 et seq. of this part; provided that to the extent that 9 VAC 5-140-700 et seq. provides for a three-year period for recordkeeping, the three-year period shall apply.  
(9 VAC 5-140-60 E.1)
  - c. Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO<sub>x</sub> Budget Trading Program.  
(9 VAC 5-140-60 E.1)
  - d. Copies of all documents used to complete a NO<sub>x</sub> Budget permit application and any other submission under the NO<sub>x</sub> Budget Trading Program or to demonstrate compliance with the requirements of the NO<sub>x</sub> Budget Trading Program.  
(9 VAC 5-140-60 E.1)
2. The NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit at the source shall submit the reports and compliance certifications required under the NO<sub>x</sub> Budget Trading Program, including those under 9 VAC 5-140-300 et seq., 9 VAC 5-140-700 et seq., or 9 VAC 5-140-800 et seq.  
(9 VAC 5-140-60 E.2)

#### **D. Testing for NO<sub>x</sub> Budget Trading Program CEM Certification**

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports for this testing shall be provided at the appropriate locations.  
(9 VAC 5-40-30, 9 VAC 5-50-30, and 9 VAC 5-140-710)

#### **E. Liability**

1. Any person who knowingly violates any requirement or prohibition of the NO<sub>x</sub> Budget Trading Program, a NO<sub>x</sub> Budget permit, or an exemption under 9 VAC 5-140-50 shall be subject to enforcement pursuant to the Air Pollution Control Law of Virginia or applicable Federal law.  
(9 VAC 5-140-60 F.1)
2. Any person who knowingly makes a false material statement in any record, submission, or report under the NO<sub>x</sub> Budget Trading Program shall be subject to criminal enforcement pursuant to the Air Pollution Control Law of Virginia or applicable Federal law.  
(9 VAC 5-140-60 F.2)
3. No permit revision shall excuse any violation of the requirements of the NO<sub>x</sub> Budget Trading Program that occurs prior to the date that the revision takes effect.  
(9 VAC 5-140-60 F.3)

4. Each NO<sub>x</sub> Budget source and each NO<sub>x</sub> Budget unit shall meet the requirements of the NO<sub>x</sub> Budget Trading Program.  
(9 VAC 5-140-60 F.4)
5. Any provision of the NO<sub>x</sub> Budget Trading Program that applies to a NO<sub>x</sub> Budget source (including a provision applicable to the NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> Budget source) shall also apply to the owners and operators of such source and of the NO<sub>x</sub> Budget units at the source.  
(9 VAC 5-140-60 F.5)
6. Any provision of the NO<sub>x</sub> Budget Trading Program that applies to a NO<sub>x</sub> Budget unit (including a provision applicable to the NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> budget unit) shall also apply to the owners and operators of such unit. Except with regard to the requirements applicable to units with a common stack under Article 8 (9 VAC 5-140-700 et seq.), the owners and operators and the NO<sub>x</sub> authorized account representative of one NO<sub>x</sub> Budget unit shall not be liable for any violation by any other NO<sub>x</sub> Budget unit of which they are not owners or operators or the NO<sub>x</sub> authorized account representative and that is located at a source of which they are not owners or operators or the NO<sub>x</sub> authorized account representative.  
(9 VAC 5-140-60 F.6)

**F. NO<sub>x</sub> Budget Trading Program Effect on Other Authorities.**

No provision of the NO<sub>x</sub> Budget Trading Program, a NO<sub>x</sub> Budget permit application, a NO<sub>x</sub> Budget permit, or an exemption under 9 VAC 5-140-50 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NO<sub>x</sub> authorized account representative of a NO<sub>x</sub> Budget source or NO<sub>x</sub> Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.  
(9 VAC 5-140-60 G)

## SOURCE TESTING REPORT FORMAT

### Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Tester; name, address and report date

### Certification

1. Signed by team leader / certified observer (include certification date)
- \* 2. Signed by reviewer

### Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- \* 4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

### Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- \* 4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

### Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

### \* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

### Appendix

- \* 1. Process data and emission results example calculations
2. Raw field data
- \* 3. Laboratory reports
4. Raw production data
- \* 5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

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\* Not applicable to visible emission evaluations.