



*COMMONWEALTH of VIRGINIA*

DEPARTMENT OF ENVIRONMENTAL QUALITY

Blue Ridge Regional Office

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David K. Paylor  
Director

Steven A. Dietrich  
Regional Director

L. Preston Bryant, Jr.  
Secretary of Natural Resources

**Lynchburg Office**  
7705 Timberlake Road  
Lynchburg, Virginia 24502  
(434) 582-5120  
Fax (434) 582-5125

**Roanoke Office**  
3019 Peters Creek Road  
Roanoke, Virginia 24019  
(540) 562-6700  
Fax (540) 562-6725

**STATE OPERATING PERMIT  
STATIONARY SOURCE PERMIT TO OPERATE**

**This permit implements the requirements for Best Available Retrofit Technology (BART).**

This permit (i) is for the purpose of implementing the "best available retrofit technology" (BART) requirements of Article 52 (9 VAC 5-40-7550 et seq.) of 9 VAC 5 Chapter 40 (Existing Stationary Sources) of the Regulations of the Board and (ii) establishes control technology and other requirements for the control of visibility-impairing pollutants from the MeadWestvaco Packaging Resource Group in the Blue Ridge Air Quality Control Region. These BART requirements shall be the legal and regulatory basis for control of visibility-impairing pollutants from this facility.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

MeadWestvaco Packaging Resource Group  
104 East Riverside Street  
Covington, Virginia 24426  
Registration No.: 20328  
AIRS ID No.: 51-580-0003

is authorized to operate equipment subject to Best Available Retrofit Technology (BART) requirements under 40 CFR 51, located at

East Riverside Street, Covington, Virginia

in accordance with the Conditions of this permit.

Approved on **February 23, 2009**.

Handwritten signature of Steven A. Dietrich in cursive script.

Steven A. Dietrich, P.E.

Regional Director, Department of Environmental Quality

Permit consists of 8 pages.  
Permit Conditions 1 to 30.

**INTRODUCTION**

This permit approval is based on the BART Applicability Analysis Air Quality Modeling Protocol dated April 12, 2006, the BART Applicability Analysis dated November 6, 2006 and the BART Technology Determination dated March 30, 2007. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 and 9 VAC 5-40-7570.C. of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses ( ) after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the Department of Environmental Quality (DEQ) or the State Air Pollution Control Board (Board) for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

**PROCESS AND EMISSION CONTROL REQUIREMENTS**

- Equipment List** - Equipment to be operated under requirements for Best Available Retrofit Technology at this facility consists of the following:

<b>Equipment to be operated as Best Available Retrofit Technology</b>				
<b>Ref No.</b>	<b>Equipment Description</b>	<b>Rated Capacity</b>	<b>Federal Requirements</b>	<b>Installation Date</b>
PWR009	No. 9 Power Boiler	807 MMBTU/hr	n/a	1963
PWR010	No. 10 Power Boiler	330 MMBTU/hr	n/a	1967
REC001	No. 1 Recovery Furnace	2627 TBLS <sup>1</sup> /day	MACT MM	1972
REC002	No. 1 Smelt Dissolving Tank (Upriver)	2627 TBLS <sup>1</sup> /day	MACT MM	1972
REC003	No. 1 Smelt Dissolving Tank (Downriver)			

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.

(9 VAC 80-1180 D 3)

<sup>1</sup> tons of black liquor solids



2. **Emission Controls (PWR009)** – Particulate matter and PM<sub>10</sub> emissions from the No. 9 Power Boiler shall be controlled by an electrostatic precipitator or an alternative control device as approved by DEQ to provide equal or greater control. The electrostatic precipitator or alternative control device shall be provided with adequate access for inspection and shall be in operation when the No. 9 Power Boiler is operating.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
3. **Emission Controls (PWR009)** – Nitrogen oxide emissions from the No. 9 Power Boiler shall be controlled by low NO<sub>x</sub> burners or an alternative control technology as approved by DEQ to provide equal or greater control.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
4. **Emission Controls (PWR009)** – Sulfur dioxide emissions from the No. 9 Power Boiler shall be controlled by a flue gas desulfurization system or an alternative control device as approved by DEQ to provide equal or greater control. The flue gas desulfurization system or alternative control device shall be provided with adequate access for inspection and shall be in operation when the No. 9 Power Boiler is operating.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
5. **Emission Controls (PWR010)** – Particulate matter, PM<sub>10</sub> and sulfur dioxide emissions from the No. 10 Power Boiler shall be minimized by restricting the fuel source to 90% or more natural gas and by proper boiler operation and maintenance. Utilization of fuel oil for more than 10% of annual heat input of this unit will require a revised BART analysis, and may require amendment of this permit.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
6. **Emission Controls (PWR010)** – Nitrogen oxide emissions from the No. 10 Power Boiler shall be minimized by proper boiler operation at less than 50% of rated capacity of 2,891,000 MMBtu/yr on an annual basis, calculated monthly, and by proper maintenance. Utilization of more than 50% of rated capacity of this unit will require a revised BART analysis, and may require amendment of this permit.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
7. **Emission Controls (REC001)** – Particulate matter and PM<sub>10</sub> emissions from the No. 1 Recovery Furnace shall be controlled by an electrostatic precipitator or an alternative control device as approved by DEQ to provide equal or greater control. The electrostatic precipitator or alternative control device shall be provided with adequate access for inspection and shall be in operation when the No. 1 Recovery Furnace is operating.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
8. **Emission Controls (REC001)** – Nitrogen oxide emissions from the No. 1 Recovery Furnace shall be minimized by proper furnace operation and maintenance.  
(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))
9. **Emission Controls (REC002, REC003)** – Particulate matter, PM<sub>10</sub> and sulfur dioxide emissions from each of the No. 1 Recovery Smelt Dissolving Tanks shall be controlled by a Venturi scrubber with basic solution or an alternative control device as approved by DEQ to provide equal or greater control on each tank. Each Venturi scrubber or alternative control

device shall be provided with adequate access for inspection and shall be in operation when the respective Smelt Dissolving Tank is operating. Basic scrubber fluid shall be maintained by addition of caustic to the scrubber fluid.

(9 VAC 5-80-850, 9 VAC 5-40-7590 and 40 CFR 51.308(e))

10. **Emission Control Replacement** – Future applications for the replacement of any of the required pollution control equipment cited in this permit shall include a BART cost and impact analysis, as well as the standard BACT analysis, if required.  
(9 VAC 5-80-850 and 40 CFR 51.308(e))
11. **Emission Control Operation and Maintenance** - Emission control equipment shall be maintained and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations.  
(9 VAC 5-40-7590.5)
12. **Fuel (REC001)** - The approved fuels for the No. 1 Recovery Furnace are natural gas, #6 fuel oil, on-spec or off-spec used oil and black liquor solids (BLS). The sulfur content of the #6 fuel oil shall not exceed 1% by weight.  
(9 VAC 5-80-850 and 9 VAC 5-40-7590)
13. **Fuel Throughput (REC001)** - The No. 1 Recovery Furnace shall consume no more than 850,000 gallons of oil (#6 fuel oil and used oil) per year during periods when not co-firing with BLS, calculated monthly as the sum of each consecutive 12-month period.  
(9 VAC 5-80-850 and 9 VAC 5-40-7590)

### EMISSION LIMITATIONS

14. **Emission Limits (PWR009)** - Emissions from the operation of the No. 9 Power Boiler shall not exceed the limits specified below:

Nitrogen Oxides (as NO <sub>2</sub> )	242.1 lb/hr	1,060 tons/yr
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(9 VAC 5-80-850 and 9 VAC 5-40-7580)
15. **Emission Limits (Tall Stack)** - Combined emissions from the operation of Power Boilers Nos. 6 through 9 shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	166.4 lb/hr <sup>2</sup>	728.9 tons/yr <sup>3</sup>
Sulfur Dioxide	1,831 lb/hr (annual avg.) <sup>3</sup>	8,020 tons/yr <sup>3</sup>

  
(9 VAC 5-80-850 and 9 VAC 5-40-7580)
16. **Emission Limits (PWR010)** - Emissions from the operation of the No. 10 Power Boiler when operating on natural gas shall not exceed the limits specified below:

Particulate Matter/PM <sub>10</sub>	2.51 lb/hr
Nitrogen Oxides (as NO <sub>2</sub> )	66.0 lb/hr

  
(9 VAC 5-80-850 and 9 VAC 5-40-7580)

<sup>2</sup> PM/PM<sub>10</sub> limits equivalent to 0.07 lb/MMBtu (modeled emissions from the tall stack)

<sup>3</sup> Limit to take effect January 1, 2009



17. **Emission Limits (REC001)** – Emissions from the operation of the No. 1 Recovery Furnace shall not exceed the limits specified below:

Particulate Matter	0.044 gr/dscf @ 8% O <sub>2</sub>	150.0 lb/hr	350 tons/yr
		85.0 lb/hr annual avg.	
PM <sub>10</sub>	0.044 gr/dscf @ 8% O <sub>2</sub>	103.8 lb/hr	242 tons/yr
		58.8 lb/hr annual avg.	
Sulfur Dioxide		713.7 lb/hr	
NO <sub>x</sub>		211.2 lb/hr	

(9 VAC 5-80-850 and 9 VAC 5-40-7580)

18. **Emission Limits (REC002, REC003)** – Combined emissions from the operation of the No. 1 Recovery Furnace Smelt Dissolving Tanks shall not exceed the limits specified below:

Particulate Matter	14.1 lb/hr	58.0 tons/yr
PM <sub>10</sub>	12.6 lb/hr	51.9 tons/yr
Sulfur Dioxide	14.8 lb/hr	64.8 tons/yr

(9 VAC 5-80-850 and 9 VAC 5-40-7580)

**MONITORING**

19. **Monitoring Devices** – The pollution control devices required by this permit or subsequently approved as replacements for such devices shall be equipped with one or more devices to continuously monitor the performance of each control device. Such monitors may include but are not limited to primary and secondary voltages for electrostatic precipitators and liquid flow rate and air pressure drop for scrubbers. 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 and shall be in operation when the respective emission unit is operating.

(9 VAC 5-80-850)

20. **CEMS (Tall Stack)** – A Continuous Emission Monitoring System (CEMS) shall be installed to measure and record the emissions of sulfur dioxide from the combined stack for Power Boilers Nos. 6 through 9 (Tall Stack). The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and 40 CFR Part 60, Appendix B.

(9 VAC 5-50-40)

**CONTINUING COMPLIANCE**

21. **Stack Tests** - Upon request by the DEQ, the permittee shall conduct performance tests for particulate matter, PM<sub>10</sub>, nitrogen oxides and/or sulfur dioxide from the emissions units listed in Condition 1 and/or from the combined stack for Power Boilers Nos. 6 through 9 (Tall Stack) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Air Compliance Manager, Blue Ridge Regional

Office.  
(9 VAC 5-50-30 G)

22. **Modeling** - Upon request by the DEQ, the permittee shall perform additional modeling to demonstrate compliance with 40 CFR 51, Subpart P or other federal requirements related to visibility impairment. The details of the modeling shall be arranged with the Air Permit Manager, Blue Ridge Regional Office and/or the Office of Air Data Analysis.  
(9 VAC 5-50-30 G)

### RECORDKEEPING

23. **On Site Records** - 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 Air Compliance Manager, Blue Ridge Regional Office. These records shall include, but are not limited to:
- a. Consumption of coal, natural gas and #2 fuel oil in the No. 9 Boiler, calculated monthly as the sum of each consecutive 12-month period.
  - b. Consumption of natural gas, #2 fuel oil, #4 fuel oil and #6 fuel oil in the No. 10 Boiler, calculated monthly as the sum of each consecutive 12-month period.
  - c. Consumption of BLS and natural gas in the No. 1 Recovery Furnace, calculated monthly as the sum of each consecutive 12-month period.
  - d. Consumption of oil (including #6 fuel oil and used oil) when not co-firing with BLS in the No. 1 Recovery Furnace, calculated monthly as the sum of each consecutive 12-month period to demonstrate compliance with the throughput limits in Condition 13.
  - e. Hourly and annual emissions of each emission unit listed in Condition 1. Emissions may be based on measurements, engineering estimates or a combination. Maximum hourly emissions as a daily average may be acceptable. Emissions shall be calculated by a method acceptable to the DEQ.
  - f. Calculation of the annual use of the No. 10 Boiler as a fraction of its rated capacity.
  - g. Calculation of the use of oil in the No. 10 Boiler as a fraction of its annual fuel use.
  - h. Monitoring records for all pollution control devices required by this permit, as specified in the facility CAM plan.<sup>4</sup>
  - i. Monitoring records for all pollution control devices required by this permit, as specified in the federal operating permit in effect on the issuance date of this permit, until such time as the federal operating permit is renewed with a CAM plan.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.  
(9 VAC 5-80-900)

<sup>4</sup> effective upon renewal of the federal operating permit in effect at the time of issuance of this permit



**GENERAL CONDITIONS**

24. **Relationship to Other Requirements** - Except to the extent that conditions in this permit may be more stringent, this permit does not supersede or replace any other valid permit, regulatory or statutory requirement. Furthermore, this approval to operate shall not relieve MeadWestvaco Packaging Resource Group of the responsibility to comply with all other local, state and federal regulations, including permit regulations.  
(9 VAC 5-80-800 D and 9 VAC 5-80-820 F)
25. **Federal Enforceability**- Once the permit is approved by the U.S. Environmental Protection Agency into the Commonwealth of Virginia State Implementation Plan, the permit is enforceable by EPA and citizens under the federal Clean Air Act.  
(9 VAC 5-80-800 D and 9 VAC 5-80-820 F)
26. **Permit Modification** - The Board may revise (modify, rewrite, change or amend) or repeal this permit with the consent of MeadWestvaco Packaging Resource Group, for good cause shown by MeadWestvaco Packaging Resource Group, or on its own motion provided approval of the revision or repeal is accomplished in accordance with Regulations of the Board and the Administrative Process Act (§ 2.2-4000 et seq.). Such revision or repeal shall not be effective until the revision or repeal is approved by the U. S. Environmental Protection Agency following the requirements of 40 CFR Part 51 (Requirements for Preparation, Adoption, and Submittal of Implementation Plans).  
(9 VAC 5-80-960 and 9 VAC 5-80-1000)
27. **Failure to Comply** - Failure by MeadWestvaco Packaging Resource Group to comply with any of the conditions of this permit shall constitute a violation of a Permit of the Board. Failure to comply may result in a Notice of Violation and civil penalty. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of orders as appropriate by the Board as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.  
(9 VAC 5-80-820 F, 9 VAC 5-80-910 and 9 VAC 5-80-1010)
28. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:
- a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
  - b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
  - c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
  - d. To sample or test at reasonable times.
- For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.  
(9 VAC 5-170-130 and 9 VAC 5-80-850)

29. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Director, Blue Ridge Regional Office of the change of ownership within 30 days of the transfer.  
(9 VAC 5-80-940)
30. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.  
(9 VAC 5-80-860 D)