

Air Permit Review

Permit Issue Date:

Region: Washington Regional Office
County: Craven
NC Facility ID: 2500104
Inspector's Name: Betsy Huddleston
Date of Last Inspection: 06/04/2009
Compliance Code: 3 / Compliance - inspection

Facility Data			Permit Applicability (this application only)
<p>Applicant (Facility's Name): Weyerhaeuser Company - Vanceboro Pulp and Paper</p> <p>Facility Address: Weyerhaeuser Company - Vanceboro Pulp And Paper 1785 Weyerhaeuser Road Vanceboro, NC 28586</p> <p>SIC: 2611 / Pulp Mills NAICS: 32211 / Pulp Mills</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>			<p>SIP: NSPS: NESHAP: 2D .1109 (Case-By-Case MACT) PSD: PSD Avoidance: NC Toxics: 112(r): Other:</p>
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	<p>Application Number: 2500104.09G Date Received: 09/09/2009 Application Type: 112(j) Part II Application Schedule: TV-Significant Existing Permit Data Existing Permit Number: 02590/R39 Existing Permit Issue Date: 03/03/2010 Existing Permit Expiration Date: 12/31/2013</p>
<p>Brad Chesson Environmental Engineer (252) 633-7230 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	<p>John Ashley Vice President (252) 633-7242 P.O. Box 1391 New Bern, NC 28563</p>	<p>Brad Chesson Environmental Engineer (252) 633-7230 1785 Weyerhaeuser Road Vanceboro, NC 28586</p>	
<p>Review Engineer: Fern Paterson, P.E.</p> <p>Review Engineer's Signature: _____ Date: _____</p>		<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue: 02590/R40 Permit Issue Date: Permit Expiration Date: 12/31/2013</p>	

I. Purpose of Application

Weyerhaeuser Company - Vanceboro Pulp and Paper is located in Vanceboro, Craven County, North Carolina. Application No. 2500104.09G, received September 9, 2009, is a Part 2 MACT "Hammer" application for three affected boilers, as follows:

- **ID No. 150-001** – One residual oil-fired #1 Power Boiler (579 million Btu per hour maximum heat input rate)
- **ID No. 161-001** – One #2 Power Boiler firing No. 2, residual fuel oil, or natural gas alone or with product gas from the black liquor gasifier (287 million Btu per hour maximum heat input rate from product gas and fuel oil/267 million Btu per hour maximum heat input rate from oil only) with a condensing scrubber (**ID No. 161-018**) and a chevron mist eliminator (**ID No. 161-024**); the boiler is also used to destroy Low Volume High Concentration (LVHC) gases, High Volume Low Concentration (HVLC) gases, and foul condensate steam stripper off-gas (SOG)

- **ID No. 446-011** – One No. 2 fuel oil-fired preheater (15 million Btu per hour maximum heat input rate) installed on the black liquor gasifier

Weyerhaeuser also asked that a fourth boiler, the residual fuel oil-fired package boiler (**ID No. 160-000**) be removed from the permit.

II. Permit Modifications/Changes

The following table describes the modifications to the current permit.

Page(s)	Section	Description of Change(s)
1	Permit Cover Page	Amend permit revision numbers and issuance/effective dates.
1-2	List of Permitted Sources	Add “Case-By-Case MACT” designation to the affected boilers.
4	Specific Condition 1	Add 15A NCAC 2D .1109 to the list of applicable regulations.
10-13	Specific Condition 16.	Add Section to include Case-By-Case MACT Hammer requirements.

III. Regulatory Review

- A. **15A NCAC 2D .1109 – CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters** – On July 20, 2007, the D.C. Circuit Court vacated the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, which had been promulgated under 40 CFR 63, Subpart DDDDD. The North Carolina Attorney General’s office has determined that the NESHAP vacatur equates to the failure of the U.S. EPA to promulgate a standard as required under Section 112(d) of the Clean Air Act (CAA). As a result, the site-specific Maximum Achievable Control Technology (MACT) standards required under CAA §112(j), commonly referred to as the MACT “hammer” provisions, have been triggered. North Carolina regulations implementing the MACT hammer are found at 15A NCAC 2D .1109.

NC DAQ has developed this guidance to provide standards and compliance procedures that it has determined meet the requirements of § 112(j) (<http://daq.state.nc.us/permits/112j/>).

The NC DAQ received a Part 2 MACT “Hammer” application from this facility asking that the NC DAQ establish 112(j) emissions limitations in accordance with NC DAQ’s recommendations. The facility proposed to comply with the filterable particulate matter (PM), mercury (Hg), and carbon monoxide (CO) emission limitations that are consistent with the NC DAQ application guidance. NC DAQ has developed this guidance to provide standards and compliance procedures that it has determined meet the requirements of § 112(j). Filterable PM emission limitations are a surrogate for non-mercury metal hazardous air pollutants (HAP).

To demonstrate compliance with the standards:

- For No. 2 fuel oil, natural gas, gasifier off-gas, and other VOC off-gas firing, NC DAQ has determined that MACT is the use of best work practice standards, consistent with the provisions in CAA § 112(d)(2)(D). No control technologies for the control of CO, metals, Hg, or HCl were identified for natural gas or No. 2 fuel fired boilers in the state of North Carolina, nor were any such technologies identified in a North Carolina query using U.S. EPA’s AirControlNet software (v4.1). Gasifier and other process off-gases

are expected to have little or no concentrations of metal. Best work practice standards in this case shall include the annual inspection and maintenance of the boiler.

- For No. 6 fuel oil firing, the applicable emissions limitations and associated testing, monitoring, and recordkeeping requirements shall only apply to boilers that fire at least 10% residual fuel oil on an annual average heat input basis. In such case:
 - The Permittee will be required to conduct an annual compliance test. In most cases, the compliance test will be a stack test. However, the Permittee may choose to conduct a fuel analysis to demonstrate compliance with the mercury limit. Also, if stack test results show that emissions from an affected source are less than 80% of any applicable emission limitation, the frequency of testing for that pollutant shall be reduced from once per year to once every five years.
 - The Permittee will be required to install, operate, and maintain continuous monitoring systems (CMS) to measure and record the stack gas temperature (degrees F) after the condensing scrubber (**ID No. 161-018**) and the flow rate of the recirculating scrubber reagent (gpm).
 - The 12-hour average stack gas temperature (degrees F) after the condensing scrubber shall be maintained at or below the operating level established during the most recent performance test that demonstrated compliance with the limits in Section 16.(a) of this permit; and,
 - The 12-hour average flow rate of the recirculating scrubber reagent (gpm) shall be maintained at or above the operating level established during the most recent performance test that demonstrated compliance with the limits in Section 16.(a) of this permit.
 - The Permittee shall install, operate, and maintain carbon monoxide continuous emissions monitoring system (CO CEMS) at the power boilers (**ID Nos. 150-001 and 161-001**). Demonstration with the CO emissions limitation shall be on a 30-day average basis.
 - For each CMS or CEMS, the Permittee must develop a site-specific monitoring plan for each required continuous monitoring system (CMS), including the CO CEMS. The plan shall be submitted to the NC DAQ Stationary Source Compliance Branch (SSCB) at least 60 days before the initial performance evaluation of the CMS.

IV. Draft Permit Review Summary

Betsy Huddleston of the Washington Regional Office was provided a draft permit and draft permit review document on October 25, 2010. **<SUMMARY OF COMMENTS>**.

Brad Chesson of Weyerhaeuser was provided a draft permit for review on October 25, 2010. **<SUMMARY OF COMMENTS>**.

Ms. Katy Forney and Ms. Gracy DeNois (U.S. EPA, Region IV) were provided a draft permit for review on **<DATE>**. **<SUMMARY OF COMMENTS>**.

V. Recommendations

This permit modification application for the Weyerhaeuser Company - Vanceboro Pulp and Paper facility located in Vanceboro, Craven County, North Carolina has been reviewed by NC DAQ to determine compliance with all procedures and requirements. NC DAQ has determined that this facility appears to be complying with all applicable requirements.

Issue Permit No. 02590R40