

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**(DRAFT) Air Permit Review**

**Permit Issue Date:**

**Region:** Fayetteville Regional Office  
**County:** Robeson  
**NC Facility ID:** 7800166  
**Inspector's Name:** James Moser  
**Date of Last Inspection:** 04/24/2007  
**Compliance Code:** 3/In Compliance - Inspection

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>
<p><b>Applicant (Facility's Name):</b> Lumberton Power, LLC</p> <p><b>Facility Address:</b>                  Lumberton Power, LLC                  PO Box 1063                  Lumberton, NC 28358</p> <p><b>SIC:</b> 4911 / Electric Services  <b>NAICS:</b> 221112 / Fossil Fuel Electric Power Generation</p> <p><b>Facility Classification: Before:</b> Title V <b>After:</b> Title V  <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V</p>			
<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<p><b>Application Number:</b> 7800166.05B and 7800166.05A  <b>Date Received:</b> 06/23/2005  <b>Application Type:</b> Renewal  <b>Application Schedule:</b> TV-Renewal  <b>Existing Permit Data</b>  <b>Existing Permit Number:</b> 05543/T13  <b>Existing Permit Issue Date:</b> 06/02/2004  <b>Existing Permit Expiration Date:</b> 03/31/2006</p>
Rick Houser Environmental Specialist (910) 827-1987 PO Box 1063 Lumberton NC, 28359	Gerald Campbell General Manager  PO Box 1063 Lumberton NC, 28359	Rick Houser Environmental Specialist (910) 827-1987 PO Box 1063 Lumberton NC, 28359	
<p><b>Review Engineer:</b> Gautam Patnaik</p> <p><b>Review Engineer's Signature:</b> _____ <b>Date:</b> XXX xx, 2007</p>		<p style="text-align: center;"><b>Comments / Recommendations:</b></p> <p><b>Issue</b> 05543/T14  <b>Permit Issue Date:</b> XXX xx, 2007  <b>Permit Expiration Date:</b> XXX xx, 2012</p>	

**1. Facility Description.**

As per the description in the Regional Office report "Lumberton Power, LLC is a steam, electric generation facility. They previously supplied non-contact process steam to the nearby Alamac knitting facility. Alamac Knitting has installed boilers in their own facility to produce steam and no longer contracts with Lumberton Power. They are contracted to supply power to the grid for Delmarva Power.

**Purpose of Application**

This application is for the renewal for their Title V permit. The current Air Permit No. 05543T13, was scheduled to expire on March 31, 2006. However, the applicant submitted the required renewal application at least nine months prior to the expiration date and are therefore covered under the Title V application shield pursuant to 15A NCAC 2Q .0512(b)(1). In

accordance with 15A NCAC 2Q .0513(c) Permit No. 05543T13 shall not expire until the renewal permit has been issued or denied.

### 3. Application Chronology

This renewal application was received on June 23, 2005. The table below outlines the modifications to their permit starting from their initial title V permit.

<b>Application #</b>	<b>Changes Made to the Permit</b>	<b>Permit Issued</b>
780166A5.A	Initial title V permit	05543T09
7800166.01A	Applied for a Phase II Acid Rain permit as required by 15A NCAC 2Q .0400 and 40 CFR Part 72	05543T10
7800166.02A	Application to perform a trial test burn at 40% TDF in order to generate emissions data for NC toxics emissions for a future permit application.	05543T11
7800166.02B	Application to permanently allow the facility to operate the boilers at a 40% TDF heat input rate.	05543T12
7800166.04A	This permit was reopened by DAQ to add the 2D .1400 NOx SIP Call regulations for the two boilers	05543T13
7800166.05A	Reopen for cause – Acid Rain application, consolidated w/renewal 7800166.05B	NA
7800166.07A	Construction notice - Installation of a Mobotec emission control unit on the two boilers (ID Nos. ES-1A and ES-1B)	NA

### 4. Regulatory Review

The facility is subject to the following regulations:

- i. 15A NCAC 02D .0503: “Particulates from Fuel Burning Indirect Heat Exchangers.”
- ii. 15A NCAC 2D .0515: “Particulates from Miscellaneous Industrial Processes.”
- iii. 5A NCAC 2D .0516: “Sulfur Dioxide Emissions from Combustion Sources.”
- iv. 15A NCAC 2D .0521: “Control of Visible Emissions.” (Boilers, ID Nos. ES-1A and 1B are now also subject to .0521 (g) ).
- v. 15A NCAC 2D .0501(e): “Compliance with National Ambient Air Quality Standards.”
- vi. 15A NCAC 2D .0530: “Prevention of Significant Deterioration.”

- vii. 15A NCAC 2D .0614: “Compliance Assurance Monitoring.” Addressed below:
- viii. 15A NCAC 2D .1417: “Emission Allocations for Large Combustion Sources.”
- State-enforceable only
- ix. 15A NCAC 2Q .0700: “Toxic Air Pollutant Procedures.”

Renewal of the permit does not change any stipulations for the above regulations.

- x. 15A NCAC 2D .0521 (g) “Sources Required to Install, Operate, and Maintain Continuous Opacity Monitoring Systems (COMS).”

The current opacity limit of 20 % for the boilers (ID Nos. ES-1A and 1B) does not change. However, these boilers are subject to the “Acid Rain Requirements,” and are required to install, operate, and maintain continuous opacity monitoring systems (COMS), to monitor this opacity. Thus, these boilers are also subject to this regulation. As per this regulation, no more than four six-minute periods shall exceed the opacity standard in any one day; and the percent of excess emissions shall not exceed 0.8 percent of the total operating hours.

Monitoring/Recordkeeping

The opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60.

Reporting

The applicant shall submit every quarter the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51.

- xi. 15A NCAC 2Q .0400 “Acid Rain Procedures” (40 CFR Part 72 “Permits Regulation”) (Application # 7800166.05A)

North Carolina air quality regulation 15A NCAC 2Q .0400 implements Phase II of the federal acid rain program pursuant to Title IV of the CAA as provided in 40 CFR Part 72. The applicant initially applied for a Phase II Acid Rain permit as required by 15A NCAC 2Q .0400 in 2001. Though this facility is subject to the acid rain requirements as per the review of application # 7800166.01A “the units are not subject to a NOX emission limitation under 40 CFR Part 76 since they are not subject to an Acid Rain emissions limit for SO2 under Phase I or Phase II of the CAA as specified in 40 CFR 76.1(a).” This program requires the acid rain permit to be subject to a public notice and EPA review. The allocation in the new permit will be from 2006 to 2010, with no change in the allocation requirement. Note that the NOX allocation under 2D .1417 for Boilers (ID Nos. ES-1A and 1B) for the years 2006 and later has not changed.

**5. NSPS, NESHAPS, PSD, Attainment Status, 112(r), CAM**

NSPS

There are no sources at this facility subject to any NSPS regulation pursuant to 15A NCAC 2D .0524.

### NESHAP/MACT

This facility is not subject to any MACT or NESHAP standards pursuant to 40 CFR Part 61 or 63.

As per 40 CFR § 63.6590 (a) “An affected source is any existing, new, or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions.” This facility has only one emergency fire pump that might be subject to this MACT but will be exempted because the brake horsepower rating is less than 500. Thus, this facility is not subject to the RICE MACT.

On July 30, 2007 the Court of Appeals for the District of Columbia Circuit issued its mandate to vacate the Boiler MACT rules. However the earlier rule vacated for the Boiler MACT, 40 CFR § 63.7491 (c) exempts “An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale.” Lumberton Power, LLC operates a 35-megawatt steam, electric generation facility.

### PSD/Attainment Status

Lumberton (Robeson County) is in an attainment area for all regulated criteria pollutants. The minor baseline dates for Robeson County has been triggered for PM-10 and SO<sub>2</sub> since 3/23/79. This County is in attainment of the 8-hour ozone standard.

The facility has PSD BACT limits for the boilers (ID Nos. ES-1A and 1B) as follows:

- a. particulate matter emissions from each boiler (ID Nos. ES-1A and 1B) shall not exceed 0.028 pounds per million Btu heat input,
- b. sulfur dioxide emissions from each boiler (ID Nos. ES-1A and 1B) shall not exceed 1.50 pounds per million Btu heat input,
- c. nitrogen oxide emissions from each boiler (ID Nos. ES-1A and 1B) shall not exceed 0.66 pounds per million Btu heat input,
- d. carbon monoxide emissions from each boiler (ID Nos. ES-1A and 1B) shall not exceed 0.56 pounds per million Btu heat input, and
- e. the maximum sulfur content of any coal received and burned in the boilers shall not exceed 1.0 percent by weight.

The requirement for all other sources under the PSD BACT regulation is that these sources employ control devices to control the emissions of particulate matter.

Since no new sources are being added during the renewal, this is not a major modification for PSD purposes.

### 112(r)

This facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule.

### CAM

The two control devices (ID Nos. CD-1A and CD-1B) control the emissions of PM10 from the two boilers (ID Nos. ES-1A and ES-1B) respectively. The before control emissions of PM10 from each of these boilers is estimated to be above 100 tons per year, thus the associated control devices (ID Nos. CD-1A and CD-1B) would be subject to a (CAM) Compliance Assurance Monitoring Plan.

As per 40 CFR § 64.3 ‘Monitoring design criteria.’ “Indicators of performance may include, but are not limited to, direct or predicted emissions (including visible emissions or opacity), process and control device parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities conducted by the owner or operator.” The applicant had selected to monitor the pressure drop and the opacity as the two parameters. It was the decision of Donald R. van der Vaart, Section Chief, to use only one parameter and have the facility monitor opacity for their CAM plan.

#### Testing

- i. None.

#### Monitoring

- ii The applicant proposed to use opacity above 12% exceeding a period of 2 hours as an indicator range. Don decided to have them redefine the excursion as a 3-hour block average value of opacity greater than 12 percent. An excursion triggers an inspection, corrective action, and a reporting requirement. Opacity is indicated by a continuous opacity monitors (COMS). The COMS readings are recorded every minute and continuously displayed. Opacity below the indicator range indicates normal operation of the bagfilters. Opacity indicator lights set at opacity readings of 12% and 20% signals to the operator the possibility of abnormal operation.

#### Recordkeeping and Reporting

- iii. The applicant must meet monitoring, recordkeeping and reporting requirements as specified in 40 CFR 64.7 through CFR 64.9

The Permittee must maintain the following records on a monthly basis in accordance with the requirements of 40 CFR 63.10(b)(1). A semi annual compliance report must cover the semiannual reporting period from January 1 through June 30 and the semiannual reporting period from July 1 through December 31.

## **6. Facility Wide Air Toxics**

The renewal of this permit did not require an air toxics analysis.

## **7. Part II of Current Permit**

The current permit does not have a Part II, however there were many emission sources modified during the five year permit term that were flagged in the permit as not being shielded in accordance with General Condition R. These references were taken out since this permit will provide for a 30-day public comment period and 45-day EPA review period.

## **8. Statement of Compliance**

The DAQ has reviewed the compliance status of this facility. The Regional Office did inform us that as per the latest inspection done on 4/24/07 the facility was in compliance with all applicable requirements. The applicant has certified that the facility will be in compliance with all applicable requirements at the time of permit issuance and will continue to comply with these requirements.

## **9. Facility Emissions summary and Operational Status**

There is no change in emissions for this renewal. The emission summary for 2006 and 2005 are attached

Regarding a summary of their current operational status the applicant on 8/23/07 wrote "The Lumberton & Elizabethtown Power Plants underwent lengthy outages to replace and install new DCS (distributed control systems) at each facility. That work was recently completed, and both plants have now come back online.

In January 2007 the NCDAQ issued a permit to construct for each facility to install a MOBOTECH control system for purposes of testing and evaluating the effectiveness and feasibility of the systems to control/reduce SO<sub>2</sub> and NO<sub>x</sub> emissions. The facilities are required to evaluate the MOBOTECH systems in accordance with a March 2006 Settlement Agreement with NCDENR/DAQ. MOBOTECH is presently being installed at Lumberton, and testing is expected to occur in November 2007 at Lumberton. Elizabethtown will be tested shortly thereafter, although the test schedule will depend upon when an outage can be scheduled to complete the installation."

## **10. Public Notice / EPA and Affected State Review**

Pursuant to 2Q. 0521, a notice of the draft Title V Permit will be placed in a newspaper of general circulation in the area where the facility is located. The notice will provide for a 30 day comment period, with an opportunity for a public hearing. Copies of the public notice will be sent to persons on the Title V mailing list and EPA. Pursuant to 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant will be provided to EPA. Also pursuant to 2Q .0522, a notice of the draft Title V Permit will be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above.

## **11. Conclusions, Comments, and Recommendations**

A professional engineer's seal was not required for this renewal.

A consistency determination was not required for this renewal.

Regional Office and the applicant were provided a draft of this permit for their comments. The Regional Office comments received on 9/6/07 were addressed.

Regional Office concurs with RCO recommendation to renew air permit.

## 11. Permit Modification/Changes

The following table describes the modifications to the current permit as part of the modification process.

<b>Page(s)</b>	<b>Section</b>	<b>Description of Change(s)</b>
Attachment	Insignificant Activities List	Added ID numbers the sources
6 to 7	2.1 A. 3	Added 2D .0521(g) requirements including testing, monitoring, recordkeeping and reporting
14	2.1 B. 2.	Modified the monitoring language for 2D .0521
15	2.1 C. 1.	Modified the monitoring language for 2D .0521
12 to 13	2.1. A. 8.	Added CAM plans for bagfilters (ID Nos. CD-1A and CD-1B)
18	2.3.	NOX allocation for years 2006 to 2010
19 to 28	General Conditions	Updated General Conditions