

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

**Permit Issue Date:**

**Region:** Asheville Regional Office  
**County:** Rutherford  
**NC Facility ID:** 8100028  
**Inspector's Name:** Mike Parkin  
**Date of Last Inspection:** 12/08/2010  
**Compliance Code:** 3 / Compliance - inspection

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>
<p><b>Applicant (Facility's Name):</b> Duke Energy Carolinas, LLC - Cliffside Steam Station</p> <p><b>Facility Address:</b>                  Duke Energy Carolinas, LLC - Cliffside Steam Station                  573 Duke Power Road (SR 1002)                  Cliffside, NC 28024</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>			<p><b>SIP:</b>  <b>NSPS:</b>  <b>NESHAP:</b> 15A NCAC 2D .1109 (Case-By-Case MACT)  <b>PSD:</b>  <b>PSD Avoidance:</b>  <b>NC Toxics:</b>  <b>112(r):</b>  <b>Other:</b></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> 8100028.09B  <b>Date Received:</b> 09/04/2009  <b>Application Type:</b> 112(j) Part II  <b>Application Schedule:</b> TV-Significant</p> <p style="text-align: center;"><b>Existing Permit Data</b></p> <p><b>Existing Permit Number:</b> 04044/T31  <b>Existing Permit Issue Date:</b> 06/30/2010  <b>Existing Permit Expiration Date:</b> 05/31/2015</p>
Steve Hodges Environmental Coordinator (828) 657-2339 573 Duke Power Road Mooresboro, NC 28114	Rick Roper Manager Cliffside Steam Station (828) 667-2001 573 Duke Power Road Mooresboro, NC 28114	William Horton Senior Environmental Specialist (980) 373-3226 526 South Church Street Charlotte, NC 28202	
<p><b>Review Engineer:</b> Fern Paterson, P.E.</p> <p><b>Review Engineer's Signature:</b> _____ <b>Date:</b> _____</p>		<p style="text-align: center;"><b>Comments / Recommendations:</b></p> <p><b>Issue</b> 04044/T32  <b>Permit Issue Date:</b>  <b>Permit Expiration Date:</b> 05/31/2015</p>	

**I. Purpose of Application**

Duke Energy Carolinas, LLC - Cliffside Steam Station is located in Cliffside, Rutherford County, North Carolina. Application No. 8100028.09B, received September 4, 2009, is a Part 2 MACT "Hammer" application for two propane and No. 2 fuel oil-fired auxiliary boilers (**ID Nos. ES-6(Aux) and ES-7(Aux)**) rated at 71.5 million British thermal units per hour (MMBtu/hr) and 4 MMBtu/hr, respectively.

## 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.
6	Section 1, Table	Add "Case-By-Case MACT" designation to the affected boilers ( <b>ID Nos. ES-6(Aux) and ES-7(Aux)</b> ).
18	Section 2.1.B., Table	Add 15A NCAC 2D .1109 to the table summarizing applicable regulations.
19-20	2.1.D.4. (New)	Add Section to include the Case-by-Case MACT requirements for the affected boilers ( <b>ID Nos. ES-6(Aux) and ES-7(Aux)</b> ).
89-97	Section 3	Update General Provisions with the most recent revision (v. 3.3)

## III. Regulatory Review – 15A NCAC 2D .1109: Case-By-Case MACT

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.

On September 4, 2009, the NC DAQ received a Part 2 MACT "Hammer" application from this facility for two affected propane and No. 2 fuel oil-fired auxiliary boilers (**ID Nos. ES-6(Aux) and ES-7(Aux)**). Utility boilers are not within Industrial, Commercial, and Institutional Boilers and Process Heaters industrial source category and the Permittee is not required to submit a "Hammer" application for the utility boilers.

No control technologies for the control of CO, metals, Hg, or HCl were identified for propane and No. 2 fuel oil-fired boilers in the state of North Carolina. The NC DAQ has determined that MACT is the use of best work practice standards for propane and No. 2 fuel oil fired combustion sources, consistent with the provisions in CAA § 112(d)(2)(D). Best work practice standards in this case shall include the annual inspection and maintenance of the boiler as follows:

*To assure compliance, the Permittee shall perform an annual boiler inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:*

- i. Inspect the burner, and clean or replace any components of the burner as necessary;*
- ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,*
- iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.*

*The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected boilers are not inspected and maintained as required above.*

In addition, the Permittee will be required to record the results of the annual inspection in a logbook (written or electronic format), which shall be retained on-site and made available to an authorized representative upon request.

## IV. Draft Permit Review Summary

Christopher Scott of the Mooresville Regional Office was provided a draft permit and draft permit review document on December 16, 2010.

Kris Knudsen of Duke Energy was provided a draft permit for review on December 16, 2010.

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 Duke Energy Carolinas, LLC – Cliffside Steam Station located in Cliffside, Rutherford 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. 04044T32**