

Air Permit Review

Region: Winston-Salem Regional Office
County: Rockingham
NC Facility ID: 7900015
Inspector's Name: Eric Hudson
Date of Last Inspection: 06/23/2009
Compliance Code: 3 / Compliance - inspection

Permit Issue Date:

Facility Data			Permit Applicability (this application only)
<p>Applicant (Facility's Name): Duke Energy Carolinas, LLC - Dan River Steam Station</p> <p>Facility Address: Duke Energy Carolinas, LLC - Dan River Steam Station 900 South Edgewood Road Eden, NC 27288</p> <p>SIC: 4911 / Electric Services NAICS: 221112 / Fossil Fuel Electric Power Generation</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>			<p>SIP: N/A NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: 15A NCAC 2D .1109 <i>[112(j) – Part 2 MACT Hammer for Boilers & Process Heaters]</i></p>
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	<p>Application Number: 7900015.09B Date Received: 09/04/2009 Application Type: 112(j) Part II Application Schedule: TV-Significant</p> <p style="text-align: center;">Existing Permit Data</p> <p>Existing Permit Number: 03455/T28 Existing Permit Issue Date: 01/28/2010 Existing Permit Expiration Date: 12/31/2014</p>
George Tolbert EHS Professional (336) 623-0415 900 South Edgewood Road Eden, NC 27288	Stephen Townsend General Manager II Dan River Steam Stati (704) 280-9354 900 South Edgewood Road Eden, NC 27288	William Horton Senior Scientist (980) 373-3226 P.O. Box 1006 Charlotte, NC 28202	
<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 03455/T29 Permit Issue Date: _____ Permit Expiration Date: 12/31/2014</p>	

I. Purpose of Application

Duke Power Company, LLC's Dan River Steam Station is located in Eden, Rockingham County, North Carolina. Application No. 7900015.09B, received September 4, 2009, is a Part 2 MACT "Hammer" application for one propane and No. 2 fuel oil-fired auxiliary boiler (**ID No. ES-9(Aux)**) with a heat input capacity of 15 MMBtu/hr. The MACT "Hammer" provisions also apply to the natural gas fired auxiliary boiler (**ID No. ES-14**).

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.
3-4	Section 1	Add 112(j) designation to the affected boilers (ID Nos. ES-9(Aux) and ES-14).
20	Section 2.1.D., Table	Add CAA § 112(j) (2D .1109) to the list of applicable regulations.

Page(s)	Section	Description of Change(s)
21-22	Section 2.1.D.4.	Add Section to include 112(j) MACT Hammer requirements applicable to the affected boiler.
33	Section 2.1.H., Table	Add CAA § 112(j) (2D .1109) to the list of applicable regulations.
35	Section 2.1.H.6.	Add Section to include 112(j) MACT Hammer requirements applicable to the affected boiler.
49-57	Section 3	Update General Provisions with the most recent revision (v. 3.3)

III. Regulatory Review

1. **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.

On September 4, 2009, the NC DAQ received a Part 2 MACT “Hammer” application from this facility for one affected propane and No. 2 fuel oil-fired auxiliary boiler (**ID No. ES-9(Aux)**). The MACT “Hammer” provisions also apply to the natural gas fired auxiliary boiler (**ID No. ES-14**). 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 natural gas, propane, or 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 natural gas, 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 boilers 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:

- Inspect the burner, and clean or replace any components of the burner as necessary;*
- Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,*
- 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

Eric Hudson of the Winston-Salem 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>**.

V. Recommendations

This permit modification application for Duke Power Company, LLC's Dan River Steam Station located in Eden, Rockingham 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. 03455T29