

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date:

Region: Raleigh Regional Office
County: Edgecombe
NC Facility ID: 3300146
Inspector's Name: Will Wike
Date of Last Inspection: 01/15/2008
Compliance Code: 3/In Compliance - Inspection

Facility Data			Permit Applicability (this application only)		
Applicant (Facility's Name): Edgecombe Genco, LLC Facility Address: Edgecombe Genco, LLC 6358 Old Battleboro Road Battleboro, NC 27809 SIC: 4911 / Electric Services NAICS: 221119 / Other Electric Power Generation Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: 2D .0614 (CAM) NSPS: NESHAP: PSD: PSD Avoidance: NC Toxics: 112(r): Other: 2Q .0512 (Permit Shield for Acid Rain)		
Contact Data			Application Data		
Facility Contact	Authorized Contact	Technical Contact	Application Number: 3300146.06B Date Received: 04/11/2006 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 06563/T09 Existing Permit Issue Date: 02/22/2006 Existing Permit Expiration Date: 03/31/2007		
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Review Engineer: Jeff Twisdale		Comments / Recommendations:			
Review Engineer's Signature: _____		Issue 06563/T10 Permit Issue Date: _____ Permit Expiration Date: _____			
Date: _____					

I. Purpose of Application:

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (06563T09) was issued on February 22, 2006 and expired on March 31, 2007. The renewal application was initially received on April 4, 2006 by Raleigh Regional Office (RRO) and deemed complete on April 11, 2006. The renewal application was received at least nine months prior to expiration date; therefore, the existing permit will **not** expire until the renewal permit has been issued or denied with submittal of a complete and timely application, and the terms and conditions of the existing permit will remain in effect until the renewal permit has been issued or denied pursuant to 2Q .0513.

II. Facility Description

Edgecombe Genco, LLC (EG) is a topping-cycle cogeneration facility that sells power by contract to Dominion (92% electric) and produces steam for Hospira (8% steam). EG supplies power when Dominion needs additional electricity to meet peak demand. About 8,000 tons (one train car load) of coal is shipped into the facility by train each week and utilized as fuel on site. EG is permitted to allow the burning of natural gas, No. 2 fuel oil, No. 4 fuel oil, tire derived fuel (TDF), pelletized paper fuel, fly ash briquette, and wood chips in their boilers, along with coal. For the past several years, EG has only burned coal. The facility is subject to the Title V program because potential particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO₂), and carbon monoxide (CO) emissions exceed the 100 tons per year (tpy) threshold.

III. History/Background/Application Chronology

April 17, 2002 - Initial Title V permit (06563T06) issued by Fred Langenbach, Raleigh Central Office (RCO) Permit Engineer.

May 16, 2003 – Modification (06563T07) to Title V permit issued by Steve Proctor, RCO Permit Engineer, to install advanced flue gas recirculation (FGR) with methane reburn on the four existing boilers.

May 19, 2005 – Modification (06563T08) to Title V permit issued by Fern Paterson, RCO Permit Engineer, to replace two existing binvents with two new bagfilters installed on two recycle ash silos.

February 22, 2006 – Ownership change (06563T09) issued by Betty Gatano, RCO Permit Engineer.

Note: Application (3300146.07A) for replacement of coal overthrow feeders with under-throw type and for addition of coal screening/classifier operation was consolidated into this application; however, EG is not proceeding with the project.

Please see the attached IBEAM Comprehensive Report for additional information about this application.

IV. Permit Modification/Changes

The following table describes the modifications to the current permit as part of the renewal process:

Old Page(s)	New Page(s)	Section	Description of Change(s)
NA	NA	Cover Letter and Permit	-Updated mailing address and site location (Battleboro)
NA	NA	Attachment	-Updated insignificant activity list with ID Nos. and deleted tire shredders and turbine lube oil tank vent
3 and 12	3 and 14	Section 1 (Equipment table) and Section 2.1 C	-Updated emission source descriptions and ID Nos. to more appropriately reflect the two bagfilters (CD-1-6A & 2-6A) installed on the recycle ash silos
3	3	Section 1 (Equipment table)	-Removed construction designation (*) for FGR systems (CD-1-1E, 1-1F, 2-1E & 2-1F) and (**) bagfilters (CD-1-6A & 2-6A) and associated footnotes
NA	5	Section 2.1 A (Limits/Standards table)	-Added 2D .0614 for CAM requirements for PM for the boilers and associated bagfilters (40 CFR Part 64)
5	5	Section 2.1 A (Limits/Standards table)	-Updated annual ozone season requirements for NO _x (2D .1400) for current and future years
7, 10 and 12-14	7, 12 and 15-16	Section 2.1 Testing/Monitoring	-Replaced 2D .0501(c)(8) with 2D .2600 for current testing requirements throughout Section 2.1
NA	9-10	Section 2.1 A.3 (Specific Condition)	-Added 2D .0614 for CAM requirements for PM for the boilers and associated bagfilters (40 CFR Part 64)
8-9	10	Section 2.1 A.4 (Specific Condition)	-Updated annual ozone season requirements for NO _x (2D .1400) for current and future years
10, 13 and 14	12, 15 and 16	Section 2.1 B.1.c, C.2.c and D.1.c (Specific Conditions)	-Updated 2D .0521 for monitoring of visible emissions specifying Method 9 “for a minimum of 12 minutes” and removed the requirement to establish “normal” in the first 30 days following permit issuance
14 and 15	17	Section 2.1 D.2 a and b (Specific Conditions)	-Added “as required” to the wet suppression requirements of 2D .0530 per regional request
NA	17	Section 2.2 A (Specific Condition)	-Added Permit Shield for Non-applicable Requirements specifying exemption from Acid Rain Provisions
16-23	18-26	General Conditions	-Updated general conditions with latest version (2.22.1)

V. Regulatory Review

The facility is subject to the following regulations:

- 15A NCAC 2D .0515: Particulates from Miscellaneous Industrial Processes
- 15A NCAC 2D .0521: Control of Visible Emissions
- 15A NCAC 2D .0524: New Source Performance Standards (specifically NSPS Subpart Da)
- 15A NCAC 2D .0530: Prevention of Significant Deterioration (PSD)
- 15A NCAC 2D .0614: Compliance Assurance Monitoring (CAM)
- 15A NCAC 2D .1400: Nitrogen Oxides
- 15A NCAC 2Q .0711: Emission Rates Requiring a Permit
- 15A NCAC 2Q .0512: Permit Shield (Non-applicability Condition for 2Q .0400 specifically Acid Rain Provisions)

Two new or additional requirements [2D .0614 (CAM) and 2Q .0512 (Non-applicability of Acid Rain Provisions)] will be added to this renewed permit. Therefore, a regulatory review for those requirements will be included in this document (See Section VI for Acid Rain and CAM details below).

The existing regulations and associated specific conditions along with their monitoring, recordkeeping and reporting requirements will still apply. Continued compliance with the above regulations and associated specific conditions is expected.

VI. NSPS, NESHAP, CAMR, CAIR, PSD, Acid Rain, Attainment Status, 112(r), CAM

NSPS

These standards do apply to this facility. NSPS Subpart Da continues to apply to the four existing boilers that exceed 250 million Btu per hour heat input and that commenced construction after September 18, 1978.

NESHAP/MACT

Based on a review of the facility's current operations, the boilers that are classified as a coal-fired electric utility steam generating unit (EGU) by Section 112(a) definition would **not** have been subject to any National Emission Standards for Hazardous Air Pollutants (**NESHAP**), also known as Maximum Achievable Control Technology (**MACT**), since EGUs were removed from the Section 112(c) source category list for hazardous air pollutants (HAP) due to EPA's rule revision on March 29, 2005; however, on February 8, 2008, the United States Court of Appeals for the District of Columbia Circuit decided *New Jersey v. EPA*, vacating and remanding EPA's delisting of EGUs under Section 112. It is expected that EPA will develop future HAP (mercury) regulations for EGUs under Section 112 as a result of the recent court action. Therefore, MACT does **not** apply at this time.

CAMR

This facility would have been subject to the Clean Air Mercury Rule (CAMR); however, on February 8, 2008, the United States Court of Appeals for the District of Columbia Circuit decided *New Jersey v. EPA*, vacating and remanding EPA's CAMR and its delisting of EGUs as a source category under Section 112. On March 14, 2008, the court issued its mandate and made the vacatur effective.

CAIR

The facility would have been subject to the Clean Air Interstate Rule (CAIR); however, on July 11, 2008, the United States Court of Appeals for the District of Columbia Circuit decided *North Carolina v. EPA*, vacating and remanding EPA's CAIR.

PSD

This existing facility that is classified as a fossil fuel-fired steam electric plant of more than 250 million Btu per hour heat input is considered to be a major stationary source for PSD purposes because the facility does have the potential to emit more than 100 tpy of NO_x, SO₂, CO and PM-10. The facility underwent a PSD review, and a BACT determination was made on July 20, 1989.

The minor source baseline date has been triggered for Edgecombe County for PM-10, SO₂ and NO₂. Therefore, PSD increment will need to be tracked for PM-10, SO₂ and NO₂ in the future. No increase in any emissions is expected during the renewal process.

Attainment Status

This facility is located in Edgecombe County that is currently in attainment for all pollutants. No increase in emissions is expected during the renewal process.

Acid Rain Program (Title IV)

The boilers at this facility are classified as existing units since commercial operation commenced before November 15, 1990 and that on or after November 15, 1990 served a generator with nameplate capacity of greater than 25 MWe. This existing facility, formerly known as Cogentrix of Rocky Mount, Inc. (Cogentrix) until February 14, 2006, entered into a Power Purchase and Operating Agreement (PPOA) with Dominion, formerly known as Virginia Electric and Power Company, on January 24, 1989. Cogentrix was granted certification as a qualifying cogeneration facility by the Federal Energy Regulatory Commission (FERC) on April 27, 1989 pursuant to 18 CFR 292.207. Cogentrix filed an application for FERC recertification to reflect a change in ownership to Edgecombe Genco, LLC on November 18, 2005. This facility has also filed notices of self-recertification to reflect changes in the upstream ownership of the facility while all other aspects have remained the same as represented in the initial FERC certification. This qualifying cogeneration facility is **not** subject to the Acid Rain Provisions pursuant to the exemption under 40 CFR 72.6(b)(5). In addition, the facility has requested a permit shield pursuant to 2Q .0512(a)(1)(B), and notwithstanding the requirements of 2Q .0512(a)(3)(C), a specific condition will be placed in the permit in order to prevent any future confusion on this matter.

112(r)

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

CAM

A Compliance Assurance Monitoring (CAM) (40 CFR 64 and 2D .0614) determination is required for this renewal for the following reasons: (1) this facility has potential emissions that exceed the Title V major source levels without considering controls; and (2) there are sources subject to an emission limitation or standard that require controls in order to comply with that emission limitation.

40 CFR 64 requires that a CAM plan be developed for all equipment, known as Pollutant Specific Emission Units (PSEUs), located at a major facility that have *pre-controlled emissions above the major source threshold* and use a control device to meet an applicable emission limitation or standard.

This facility does utilize control devices (e.g. bagfilters and flue gas desulfurization (FGD) units, respectively) to meet an applicable emission limitation or standard (e.g. NSPS Subpart Da limits) and reduce pre-controlled emissions (e.g. PM and SO₂, respectively) from the boilers that are above the major source threshold; therefore, CAM would apply to these PSEUs. However, NSPS Subpart Da requires a continuous emissions monitoring system (CEMS) for measuring SO₂ emissions from the boilers; therefore, CAM does **not** apply to the boilers for SO₂ emissions since the CEMS qualify as monitoring as a continuous compliance determination method.

This facility does **not** use a control device (e.g. flue gas recirculation (FGR) systems) to meet an applicable emission limitation or standard (e.g. NSPS Subpart Da limitation for NO_x) since the FGRs were installed in 2003 to comply only with the EPA’s regional transport rule known as the NO_x State Implementation Plan (SIP) Call (specifically 2D .1417 – NO_x Emission Allocations for Large Combustion Sources) that requires source specific NO_x allocations not be exceeded during the ozone season (May 1 through September 30 of each year). Also, note that the FGRs are **not** considered to be active control devices by definition since they use passive control measures that prevent pollutants (NO_x) from forming. Therefore, CAM does **not** apply to the boilers for NO_x emissions.

CAM does apply to the boilers that utilize bagfilters (one for each boiler) for the control of PM emission. The facility states in their CAM plan that visible emissions measurements are made at the common stack emission point of each unit (two boilers per unit), and the opacity from each stack is in the range of 5 to 8 percent under normal conditions. Visible emissions were selected as the performance indicator because they are indicative of the operation of the bagfilter in the proper manner to comply with the particulate emission standard (20% opacity). Readings higher than the normal range (except during start-up, shutdown or malfunction periods) would be abnormal and may indicate a potential problem with the bagfilter. Therefore, the selected indicator (excursion) level will be set at 13% opacity and will require corrective action if opacity is greater than the indicator level. All excursions and corrective actions will be documented and reported.

VII. Facility-wide Air Toxics

The facility had triggered the state-only toxics regulations (2Q .0700) for the capability of burning supplemental on-site generated fuels (e.g. used oil) and alternative fuel [tire derived fuel (TDF)] in the boilers. For the past several years, EG has only burned coal. Therefore, no compliance issues with air toxics.

Also, the facility does **not** have to submit a facility-wide air toxics review required by the compliance date of the last applicable MACT pursuant to 2Q .0705 since the facility is **not** subject to a MACT or GACT (see NESHAP/MACT Section VI above). Therefore, the facility is **not** subject to a facility-wide air toxics review at this time, and the existing limits and conditions will remain the same.

VIII. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. Based on visual observations and review of records at the time of the inspection (01/15/2008 by Will Wike of RRO), this facility appeared to be operating in compliance with Air Quality standards and regulations. However, on July 10, 2008 the Technical Services Section of DAQ issued a notice of violation (NOV) for two hundred and forty-eight (248) six-minute periods that exceeded the 20% opacity limit for Unit 2 during the fourth quarter of 2007 and the first quarter of 2008 during their review of the quarterly excess emission reports required by NSPS Subpart Da. The facility failed to maintain good air pollution control practice for minimizing emissions through proper “operating and maintenance procedures” on the bagfilters installed on Unit 2 during those quarters. Since corrective actions to the opacity monitor alignment and metal casing of the bagfilter that was causing an air intrusion were completed by the end of March 2008, no enforcement action was taken on these opacity exceedances.

IX. Facility Emissions Review

There is no change in emissions for this renewal. The following table represents facility-wide actual emissions as submitted by the facility in its latest (2006) emissions inventory:

Pollutant	2006 Emissions (tons per year)
Nitrogen Oxides	1602
Carbon Monoxide	120
Particulate Matter	441
Particulate Matter less than 10 microns in diameter (PM-10)	44.4
Sulfur Dioxide	375
Volatile Organic Compounds	4.28
(All other HAPs/TAPs) / Largest Individual HAP (HCl)	(20.1) / (16.6)

X. Stipulation Review

The permit modification changes were incorporated into the permit (see table of changes in Section IV of this document).

XI. 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 is provided to the public under 2Q .0521 above.

XII. Conclusions, Comments, and Recommendations

- A. A professional engineer's seal was **not** required for this renewal.
- B. A consistency determination was **not** required for this renewal.
- C. DAQ recommends permit issuance once the public notice and EPA review periods have been completed.