

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

Permit Issue Date: **date, 2009**

**Region:** Asheville Regional Office  
**County:** Burke  
**NC Facility ID:** 1200008  
**Inspector's Name:** Brendan Davey  
**Date of Last Inspection:** 02/27/2008  
**Compliance Code:** 4/In Compliance - Certification

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>		
<b>Applicant (Facility's Name):</b> Broughton Hospital  <b>Facility Address:</b> Broughton Hospital 1000 South Sterling Street Morganton, NC 28655  <b>SIC:</b> 8063 / Psychiatric Hospitals <b>NAICS:</b> 62221 / Psychiatric and Substance Abuse Hospitals  <b>Facility Classification: Before:</b> Title V <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V			<b>SIP:</b> <b>NSPS:</b> <b>NESHAP:</b> <b>PSD:</b> <b>PSD Avoidance:</b> <b>NC Toxics:</b> <b>112(r):</b> <b>Other:</b>		
<b>Contact Data</b>			<b>Application Data</b>		
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 1200008.08A <b>Date Received:</b> 11/20/2008 <b>Application Type:</b> Renewal <b>Application Schedule:</b> TV-Renewal <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 04127/T10 <b>Existing Permit Issue Date:</b> 11/10/2004 <b>Existing Permit Expiration Date:</b> 10/31/2009		
Doug Pollard Steam Plant Supervisor (828) 433-2380 1000 South Sterling Street Morganton NC, 28655	Thomas Mahle Director / CEO (828) 433-2324 1000 South Sterling Street Morganton NC, 28655	John Rockett Maintenance Manager (828) 432-5493 1000 South Sterling Street Morganton NC, 28655			
<b>Review Engineer:</b> Mark Cuilla  <b>Review Engineer's Signature:</b> <b>Date:</b> <b>date, 2009</b>			<b>Comments / Recommendations:</b> <b>Issue</b> 04127/T11 <b>Permit Issue Date:</b> <b>date, 2009</b> <b>Permit Expiration Date:</b> <b>date, 2014</b>		

**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 (**04127T10**) was issued on **November 10, 2004**, and is scheduled to expire on **October 31, 2009**. The renewal application was received on **November 20, 2008**, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

**II. Facility Description**

The facility is the main steam plant for the hospital.

### III. History/Background/Application Chronology

**November 20, 2008** – Permit application **1200008.08A** received for renewal of current Title V permit. Application was deemed complete for processing.

**December 16, 2008** – DRAFT permit sent to Permittee for comment prior to public notice and EPA review.

**Date, 2008** – DRAFT sent to 30-day public notice and 45-day EPA review prior to issuance.

### IV. Permit Modifications/Changes and ESM Discussion

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

Page	Section	Description
Attachment	Insignificant Activities	-added ESM ID numbers -corrected size of emergency generator #4 per Permittee
Cover	-	-amended all dates and permit revision numbers
TOC	-	-removed reference to Part II -added reference to Section 2.2 Permit Shield for Non-applicable Requirements
All	Header	-amended permit revision number
3	Equipment Table 2.1 A (table)	-modified equipment descriptions where necessary to add the term “capacity” -corrected the opacity emission limit from 20 to 40 percent
4	2.1 A.1.a 2.1 A.1.b 2.1 A.1.c 2.1 A.2.a 2.1 A.2.b 2.1 A.2.f	-added ID numbers -corrected testing cross reference -updated shell language -updated shell language -corrected testing cross reference -added “no reporting” language for natural gas combustion
5	2.1 A.3.b 2.1 A.3.c 2.1 A.3.d	-corrected testing cross reference -added “no monitoring/recordkeeping” language for natural gas combustion -updated shell language
6	2.1 B.1.a 2.1 B.1.b 2.1 B.1.c 2.1 B.2.a 2.1 B.2.b 2.1 B.2.c	-added ID numbers -corrected testing cross reference -added ID numbers -added ID numbers -corrected testing cross reference -added ID numbers
7	2.2 A	-added Permit Shield for Non-applicable Requirements (NSPS-Subpart IIII and MACT-Subpart ZZZZ)
7-16	General Conditions	-updated General Conditions (v2.22.1)

*It should be noted that the permit was compared to ESM for consistency. No major changes to the permit or ESM were required as part of this permit renewal.*

## V. Regulatory Review

The facility is currently subject to the following regulations:

15A NCAC 2D .0503, Particulates from Fuel Burning Indirect Heat Exchangers  
15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources  
15A NCAC 2D .0521, Control of Visible Emissions

A regulatory review for the existing sources will not be included in this document.

## VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

**NSPS** – The facility is not currently subject to any New Source Performance Standards. This permit renewal does not affect this status.

The Permittee, however, does operate the following emergency generators:

ID No.	Emission Source Description	Installation Date
<b>I-GEN-1</b>	Diesel fired emergency generator (300 kW output capacity)	1998
<b>I-GEN-2</b>	Diesel fired emergency generator (275 kW output capacity)	1993
<b>I-GEN-3</b>	Diesel fired emergency generator (300 kW output capacity)	1993
<b>I-GEN-4</b>	Diesel fired emergency generator (80 kW output capacity)	1999
<b>I-GEN-5</b>	Diesel fired emergency generator (200 kW output capacity)	1989
<b>GEN-6</b>	One diesel-fired emergency generator (600 kW maximum output)	1989
<b>I-GEN-7</b>	Diesel fired emergency generator (205 kW output capacity)	1998

Each generator was reviewed for applicability of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII). The provisions of this Subpart apply to manufacturers, owners and operators of stationary compression ignition (CI) internal combustion engines (ICE). Specifically 60.4200(a)(2) applies to owners and operators of stationary CI ICE that commence construction after **July 11, 2005** where the stationary CI ICE are (1) manufactured after **April 1, 2006** and are not fire pump engines, or (2) manufactured as a certified National Fire Protection Association fire pump engine after **July 1, 2006**. It should be noted that for the purposes of this Subpart, the date that "construction commences" is the date the engine is ordered by the owner or operator. As shown above, the Permittee has confirmed that all seven units were installed at the facility prior to the commence construction date of **July 11, 2005**. Therefore, Subpart IIII does not apply to these units.

**NESHAPS/MACT** – The facility is not currently subject to any National Emission Standards for Hazardous Air Pollutants. This permit renewal does not affect this status.

The Permittee, however, does operate the following emergency generators:

ID No.	Emission Source Description	Installation Date
<b>I-GEN-1</b>	Diesel fired emergency generator (300 kW output capacity)	1998
<b>I-GEN-2</b>	Diesel fired emergency generator (275 kW output capacity)	1993
<b>I-GEN-3</b>	Diesel fired emergency generator (300 kW output capacity)	1993
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<b>GEN-6</b>	One diesel-fired emergency generator (600 kW maximum output)	1989
<b>I-GEN-7</b>	Diesel fired emergency generator (205 kW output capacity)	1998

Each generator was reviewed for applicability of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) for area sources. These regulations were promulgated on **January 18, 2008** as amendments to open the Subpart up to area sources of hazardous air pollutants (i.e., facilities that are not major). The provisions of this Subpart are applicable to owners, and operators of stationary reciprocating internal combustion engines (RICE). 40 CFR 63.6590(a)(1)(iii) defines an affected source as any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. Specifically, any stationary RICE located at an area source of HAP emissions is defined as existing if the owner or operator commenced construction or reconstruction of the stationary RICE before **June 12, 2006**. As shown above, the Permittee has confirmed that all seven units are existing units. Per 40 CFR 63.6590(b)(3), a stationary RICE which is an existing emergency stationary RICE does not have to meet the requirements of this Subpart and of Subpart A of this Part. No initial notification is necessary.

Section 2.2, Permit Shield for Non-applicable requirements will be added to the renewed permit to memorialize the facility's current status for these two Subparts.

**PSD** – The facility is not currently subject to any Prevention of Significant Deterioration Standards. This permit renewal does not affect this status.

**112(r)** – The 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. This permit renewal does not affect this status.

**CAM** – 40 CFR 64 requires that a continuous compliance assurance monitoring plan be developed for all equipment located at a major facility, that have pre-control emissions above the major source threshold, and use a control device to meet an applicable standard. The facility does not currently employ any control devices in order to meet any applicable standards; therefore CAM is not applicable.

## VII. Facility Wide Air Toxics

The facility is not currently subject to any NC Air Toxics Requirements. This permit renewal does not affect this status.

## VIII. Facility Emissions Review

The following table represents the latest years emission inventory from the facility:

Pollutant(s)	2006 Actual Emissions (tpy)	2007 Actual Emissions (tpy)
CO	4.24	4.65
NO <sub>x</sub>	13.20	9.54
PM <sub>10</sub>	3.35	1.85
SO <sub>2</sub>	52.33	26.36
VOC	0.07	2.12
Total HAP/TAP	0.11	0.10

## **IX. Stipulation Review**

Brendan Davey of the ARO inspected the facility on February 27, 2008. At that time and based on his observations, he found that the facility “appeared to be in compliance with the applicable air quality regulations and Air Permit No. 04127T10.”

## **X. Public Notice/EPA and Affected State(s) Review**

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall 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 shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. Tennessee is an affected State and The Western NC Regional Local Program is an affected program both within 50 miles of the facility.

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

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

A consistency determination was not required for this renewal.

ARO recommends issuance of the permit and **did not** request a DRAFT permit prior to notice and issuance.

RCO concurs with ARO’s recommendation to issue the renewed air permit.