



BMWNC, INC. 3250 Campus Ridge Road Matthews, North Carolina

What type of business is BMWNC, Inc.?

BMWNC, Inc. (BMWNC) treats regulated medical waste. Regulated medical waste consists of any solid waste generated in the medical treatment of humans or animals. The waste is a mixture of general refuse, laboratory and outdated pharmaceutical containers, pathological waste and potentially infectious waste and sharps containers. The process of treating medical waste includes the following steps: receiving, storing, combusting and ash disposal. In 2008, BMWNC processed 4,615 tons of medical waste, about 56% of allowed maximum capacity.

What types of air emissions and controls are associated with their operation?

The following types of emissions are associated with medical waste combustion: the criteria pollutants (i.e., particulate matter, volatile organic compounds, carbon monoxide, nitrogen oxides, sulfur dioxide, lead) and compounds regulated as toxic and hazardous air pollutants (TAPs and HAPs) (e.g., chromium VI, mercury, hydrogen chloride, dioxin, lead, arsenic, beryllium, manganese, nickel, and cadmium). The incinerator is required to be operated concurrently with emission control equipment including a secondary combustion chamber with minimum retention time and minimum temperature requirements, connected to a baghouse and a dry scrubber in series to reduce air pollutants. In 2008, BMWNC emitted 3.99 tons of NO_x, 0.10 tons of SO₂, 0.29 tons of particulates, and 1.87 total tons of TAPs and HAPs, including 1.52 tons of hydrochloric acid. (The emissions are calculated by using 2009 stack test emission rates and the 2008 processed weight.)

What is the permit status of BMWNC, Inc.?

This site was originally permitted in the mid 1980s with one incinerator, and operated by Bio-Medical Services, Inc. Since then, both the ownership and the number of incinerators has changed several times. The current owner is Healthcare Waste Solutions of Cincinnati, Ohio. BMWNC possesses a valid Clean Air Act Title V air quality operating permit.

On March 23, 1999, BMWNC was issued its initial Title V permit No.19-99V-099. The permit was issued in accordance with the Mecklenburg County Air Pollution Control Ordinance (MCAPCO) and lists regulatory requirements, including those from MCAPCO Regulation 2.1206 – “Hospital, Medical, and Infectious Waste Incinerators”. The permit was effective for five years. That permit was renewed on May 13, 2005 with the issuance of permit No. 04-01V-099. On February 16, 2009, BMWNC submitted a complete Title V permit renewal application to renew Permit 04-01V-099.

The current permit (04-01V-099) lists two incinerators, but the company only operates one unit (No. 1). The other unit (No. 2) has not been in operation since 2001. BMWNC did not include No. 2 unit in the Title V permit renewal application.

MCAQ completed an application review and prepared a draft permit. A 30 day public comment period started on Nov. 13, 2009, when the notice was published on the Charlotte Observer. The draft permit allows BMWNC to operate only one incinerator.

When was BMWNC last inspected and what were the findings of the inspection?

MCAQ conducts unannounced compliance inspections at least once per year for all Title V facilities in the County. Additional inspections are conducted in response to complaints and as required to assure compliance with applicable regulations.

BMWNC was inspected by MCAQ on September 10, 2009. Incinerator No. 1 was in operation. The facility was found to be operating in compliance with permit conditions. BMWNC was inspected again on February 9, 2010. Incinerator No. 1 was in operation. The facility was found to be operating in compliance.

What is BMWNC's citizen complaint history?

From MCAQ's searchable database: MCAQ has received 3 citizen complaints after September 30, 2001, the date that BMWNC was required to comply with the current standards. 1998 - 1, 1999 - 6, 2000 - 1, 2001 - 1, 2002 - 1, 2004 - 1, 2009 - 1

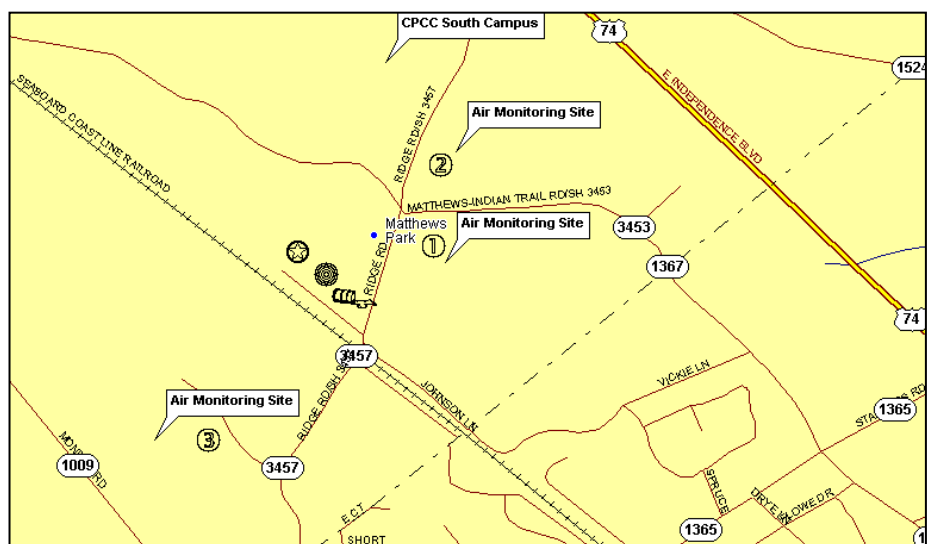
How does BMWNC demonstrate compliance?

BMWNC was required to comply with current standards by Sept. 30, 2001. The company demonstrated compliance thru stack testing, modeling, monitoring, recordkeeping, and reporting requirements listed in the permit. Title V permit contains conditions such as recordkeeping, refuse loading rate, incineration temperatures, opacity and instantaneous monitoring of carbon monoxide concentrations.

In 2001, 2003, and 2009, BMWNC conducted stack tests for all pollutants emitted. In 2002, and 2006, they conducted tests for opacity, particulate matter, carbon dioxide, and hydrogen chloride. MCAQ accepted all stack test results. The 2009 stack test results complied with the current applicable emission standards and the modeled emission rates.

1999 Ambient Air Monitoring Project

In 1999, MCAQ requested the North Carolina Department of Environment and Natural Resources - Division of Air Quality to conduct ambient air sampling around BMWNC and an adjoining facility. BMWNC was operating three incinerators then. Over a two-month period, actual monitoring was conducted at three



sites near the facility for seven metals (arsenic, beryllium, cadmium, chromium, manganese, nickel and lead), mercury, thirty-two volatile organic compounds, formaldehyde and hydrogen chloride.

The monitoring data revealed no toxic air pollutant concentration readings above the State's health-based guidelines.

What is the role of Mecklenburg County Air Quality (MCAQ)

MCAQ is a local service and regulatory agency "certified" by the North Carolina Environmental Management Commission to administer federal, state and local air quality regulations. The program has been "certified" since 1974 and is staffed by dedicated scientists, engineers and support personnel. MCAQ administers the MCAPCO, which consists primarily of state and federal rules adopted by reference by the Board of County Commissioners.

MCAQ issues permits to companies within Mecklenburg County as required by and in accordance with the Ordinance. A company may not construct, modify or operate any equipment that may be a source of air pollution without first obtaining an air quality permit from MCAQ.

What is a Title V permit?

A Title V permit is a federal operating permit program pursuant to Title V of the Clean Air Act of 1990, 40 CFR Part 70. The program is adopted and implemented by Mecklenburg County pursuant to its certification and with approval of EPA. The basic program elements typically specify that major sources will submit an operating application to the specified environmental regulatory agency according to a schedule. EPA and the affected states will review the permit issuance. The public also has an opportunity to comment on the permit, which is renewable every five years. Minor changes to the permit can be made without opening the permit for public participation.

What must be included in the Title V permit renewal application?

In accordance with MCAPCO Regulation 1.5505 – "Application Submittal Content," the permit application process in Mecklenburg County requires the facility to submit specific design, production and pollution control information demonstrating that the facility can meet applicable air quality regulations.

How did BMWNC meet the Title V operating permit application requirements?

BMWNC submitted a complete application on February 16, 2009. The application included all of the necessary information to demonstrate that the entire plant operation would meet local, state and federal air quality regulations.

MCAPCO Regulation 1.5525- "Application Processing Schedule" requires MCAQ to send the public notice for public comment on the draft permit to affected states, to EPA, and to be published in a newspaper within 270 days after receipt of a complete application.

In accordance with MCAQ procedures, the application received from BMWNC was reviewed by an Air Quality Specialist and the computer modeling demonstration for toxic air pollutants was reviewed by a Senior Air Quality Specialist. The permit was then drafted and reviewed by an Air Quality Supervisor and the Program Manager. The intent to issue the permit was published in the "Charlotte Observer" on November 13, 2009, which marked the beginning of the required 30 day public comment period. The

permit and associated documentation are available for public review. No comments were received from NCDAQ, SCBAQ or EPA.

When a public hearing is conducted, MCAQ is required to complete the review of the hearing records, and send the proposed permit to EPA within 45 days after the close of the public hearing. If EPA does not object to the proposed permit, MCAQ shall issue the permit within 5 days after expiration of EPA 45-day review period or receipt of notice from EPA that it will not object to issuance, whichever comes first.

What is in BMWNC's Title V air quality permit?

The permit limits or manages allowable emissions. It lists specific requirements including use of pollution control devices, submission of emissions calculations, and record keeping, reporting and monitoring requirements are listed as specific conditions in their Air Quality Permit. These MCAPCO regulations are cited in the specific conditions of their Air Quality Permit.

- **2.0515 - "Particulates from Miscellaneous Industrial Processes"**
- **2.1206 - "Hospital, Medical and Infectious Waste Incinerators"**
- **1.5711 - "Emission Rates Requiring a Permit"**
- **2.1104 - "Toxic Air Pollutant Guidelines"**
- **40 CFR 60 Subpart Ce as promulgated on Oct. 6, 2009**
Requires BMWNC to be in compliance with the October 6, 2009 revisions to 40 CFR 60 Subpart Ce, on or before the date 3 years after approval of the State plan to implement but no later than October 6, 2014. Revisions include federal emission rates, bypass stack limitations, etc.

What are toxic air pollutants and how are they regulated?

Some of the most stringent air pollution regulations for air pollution sources are the North Carolina air toxics regulations. BMWNC's facility is subject to these regulations. North Carolina's air toxics program is based upon protection of public health. It established airborne concentration of chemicals "above which the substance may be considered to have an adverse effect on human health."

The toxics program is designed to protect public health by minimizing exposure to and risk from toxic air pollutants emitted from permitted man-made sources. The toxics program controls what one facility adds to the existing environment, insuring that toxic air pollutants emitted from a new or modified facility does not make ambient toxic air pollutant levels worse

The chemicals became known as toxic air pollutants or TAPs and the concentrations became known as acceptable ambient levels or AALs. For substances known to cause cancer (carcinogens) in humans, AALs are set at levels calculated to represent an increment of "one in a million" risk. That is, if one million individuals are exposed continuously for 70 years, to a carcinogen at the concentration of the AAL, one person might be expected to contract cancer as a result of that exposure. For "probable" and "possible" human carcinogens, the risk levels increase to "one in one hundred thousand" and "one in ten thousand," respectively. A scientific body of experts known as the Scientific Advisory Board (SAB) continually reviews the scientific information that forms the basis of the AALs and advises the North Carolina Division of Air Quality.

The facility was required to complete computer air dispersion modeling of toxic emissions from the incinerator. Through computer modeling, approved and reviewed by MCAQ, the facility demonstrated

that its toxics concentrations for chromium VI, hydrogen chloride, arsenic, mercury vapor, cadmium, dioxin and others will not exceed the AALs at and beyond their property boundaries. BMWNC's toxics model showed that *at the historical maximum allowable emission rate, and operating 24 hours every day*, the concentrations of modeled pollutants are all less than half of the AALs, and most significantly less.

Toxic Air Pollutant	Modeled Percent of AAL Less than 100% = Compliance	Fraction of AAL Less than one = Compliance
Chromium VI	44.31 %	Four tenths
Hydrogen Chloride	00.60 %	Six one thousandths
Arsenic	00.32 %	Four one thousandths
Mercury Vapor	00.10 %	One one thousandths
Cadmium	00.03 %	Three ten thousandths
Dioxin (tetra)	00.00327 %	Three one hundred thousandths
Dioxin (hexa)	00.00023 %	Two one millionth

That is, the model showed that air emissions from the facility would not cause adverse health effects.

Can MCAQ legally include federally promulgated emission rates earlier than specified?

Legal written opinion from County Attorney Marvin Bethune stated that MCAQ **may not** include the recently federally promulgated standards in BMWNC's operating permit to require implementation earlier than required by federal regulations (10/06/2014 or such earlier date as might be required by North Carolina State regulations not currently proposed).

ALSO NOTE that MCAQ has received comments about adopting local regulations. Because of our certified program, the applicable State statutes **do not allow** Mecklenburg County to adopt regulations "which would result in more effective air pollution control" than those promulgated by the State **without special permission** from the North Carolina Environmental Management Commission. In this case, the State has not incorporated the newly federally promulgated standards into the North Carolina regulations. It is estimated that at best this process of obtaining special permission from the NCEMC would take from 2-3 years including providing a reasonable time for the business to implement the regulations, assuming everyone approves.

How can I submit comments?

The hearing record will remain open until February 18, 2010. Written comments can be mailed to:

Mecklenburg County Air Quality
Hal Marshall Service Center
700 North Tryon St., Suite 205
Charlotte NC, 28202

Or, they can be e-mailed to:
don.willard@mecklenburgcountync.gov