
(DRAFT) TITLE V MODIFICATION & RENEWAL APPLICATION REVIEW

APPLICANT: City of Greensboro White Street Landfill 2503 White Street	SITE LOCATION: Greensboro	COUNTY: Guilford
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REVIEW ENGINEER: Gautam Patnaik	SIGNATURE	REVIEW DATE: December 14, 2004
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REGIONAL CONTACT: Ray Stewart	REGIONAL OFFICE Winston Salem	SIC CODE: 4953	Application Number 4101086.04B
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EXISTING PERMIT 08830T02	NEW PERMIT NUMBER 08830T03	Applicability Renewal
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1. Introduction:

The City of Greensboro owns and operates this landfill. This facility receives municipal solid waste from the city and County. This landfill has a gas collection system.

2. Purpose of Application

This application is for a significant modification to their Subpart WWW applicability and the renewal for their title V permit. The current Air Permit No. 08830T03 will expire on March 31, 2005.

3. Application Chronology

This renewal application was received on 6/16/04. The table below outlines the modification to their permit starting from their initial title V permit.

Application #	Changes Made to the Permit	Permit Issued
4101086.97A	Initial title V permit	08830T00
4101086.02A	502(b)(10) modification: A. Install one new flare and blower for the phase III landfill. B. Remove the tub grinder (ID No. ES-4) .	08830T01
4101086.04A	502(b)(10) modification A. install a horizontal grinder (diesel fired 1,000 HP ID No. ES-4)	08830T02

4. Permit Modification/Changes

The new permit will now also be subject to 40 CFR §63.1935 (Municipal Solid Waste Landfills – MACT)

5. Regulatory Review

The facility is subject to the following regulations:

2D .0515 “Particulates Miscellaneous Industrial Processes”

2D .0516 “Sulfur Dioxide Emissions from Combustion Sources”

2D .0521 “Control Of Visible Emissions”

15A NCAC 2D .0524 Subpart WWW “Standards of Performance for Municipal Solid Waste Landfills”

Standard

This facility reported on 10/12/04 “uncontrolled NMOC emission rate is above the 50 Mg per year threshold” as such the requirements of Subpart WWW presently in the current permit are no longer applicable. Thought the same regulations (Subpart WWW) applies the facility will submit a collection and control system design and plans, where the emissions of nonmethane organic compounds (NMOCs) from the landfill (ID Nos. ES-1, ES-2, and ES-3) are controlled by a gas collection and control system (ID No. GCCS-1). This design and plans shall be prepared by a professional engineer and submitted to DAQ within 1 year, i.e., by May 18, 2005. And as per 40 CFR § 60.752 (2) (ii) the applicant has to install this system by “within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year” i.e. the system has to be installed by November 18, 2006.

Initial Performance Testing

As per 40 CFR §60.757(f) the facility is required to perform the initial performance test in accordance with 40 CFR Part [60.8](#)

Monitoring

As per The 40 CFR §60.756 the applicant will install a sampling port and a thermometer for temperature measurements at each wellhead, and:

- i. In accordance with 40 CFR §60.755(a)(3) measure the gauge pressure in the gas collection header on a monthly basis;
- ii. Monitor nitrogen or oxygen concentration and temperature in the landfill gas on a monthly basis as per 40 CFR §60.755(a)(5);
- iii. Monitor surface concentrations of methane along the entire perimeter in accordance with 40 CFR §60.755(c);
- iv. The applicant will install a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 °C, whichever is greater. If the applicant is seeking to install a collection system that does not meet the specifications in 40 CFR §60.759 then the applicant shall provide information satisfactory to the EPA as provided in 40 CFR §60.752(b)(2)(i)(B) and (C).

Recordkeeping

As per 40 CFR §60.758 the applicant shall keep for at least five years, up-to-date, readily accessible, of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate.

The records for data measured during the initial performance test or compliance determination for life of the facility. These include data of the control system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

Records of subsequent tests shall be maintained for a minimum of five years including records of all collection and control system exceedences of the operational standards, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

Records of control device vendor specifications shall be maintained until removal. Control equipment data shall include the maximum expected gas generation flow rate, the density of wells, horizontal collectors, surface collectors, or other gas extraction devices.

As per 40 CFR §60.756 records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded should be readily accessible

Reporting

As per 40 CFR §60.757 the applicant shall submit the initial annual report within 180 days of the installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR Part 60, §60.8. This report should include the requirements of 40 CFR §60.757(f)(1) through 40 CFR §60.757(f)(6) as listed below:

- (1) the value and length of time for exceedances,
- (2) the description and duration of all periods when the gas stream is diverted from the control device,
- (3) description and duration of all periods when the control device was not operating for a period exceeding 1 hour,
- (4) all periods when the collection system was not operating in excess of 5 days,
- (5) the location of each exceedance of the 500 parts per million methane concentration and
- (6) the date of installation and the location of each well or collection system expansion.

The applicant shall submit a semi annual summary report of monitoring and recordkeeping activities.

15A NCAC 2D .1111 Subpart AAAA “National Emission Standards for Hazardous Air Pollutant, Municipal Solid Waste Landfills” [40 CFR, §63.1935]

However, the landfill (ID Nos. ES-1, ES-2, and ES-3) are now subject to the Landfill MACT Subpart AAAA (40 CFR §63.1935). The applicant shall comply with all requirements of this regulation including the definitions and nomenclature contained in

40 CFR 63. §1990.

The applicant is an existing affected area source in accordance with 40 CFR Part 63, §63.1935 (a)(3). The facility is an area source since the facility has greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC emissions. This rule also requires the facility to be in compliance with this regulation by the date the facility is required to install a collection and control system in accordance with 40 CFR §60.752(b)(2) of the New Source Performance Standards, Subpart WWW. [§ 63.1945]

Monitoring [40 CFR Part 63, §63.1955 and §63.1960]

Compliance with this Subpart (AAAA) is determined in accordance with the NSPS Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitor. In addition, continuous parameter monitoring data, collected under NSPS Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems.

Additionally, the applicant shall develop and implement a written start-up, shutdown and malfunction (SSM) plan according to the provision in 40 CFR 63.6(e)(3). A copy of the SSM shall be maintained on site.

violation of this subpart will occur if the facility:

- i. fails to meet any requirement or obligation established by this subpart, including emissions limitation and work practice standard;
- ii. fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart.
- iii. fails to write, develop, implement, or maintain a copy of the SSM plan and
- iv. fails to meet any emission limitation, or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

Recordkeeping/Reporting Requirements [40 CFR Part 63, §63.1980]

The applicant shall keep records and reports as specified in the general provisions of NSPS Subpart WWW and the annual report described in 40 CFR §60.757(f) shall be submitted every 6 months.

If actions taken during a startup, shutdown, and malfunction plan are consistent with the procedures in the SSM plan, this information shall be included in a SSM report. Any time an action taken during a startup, shutdown and malfunction plan is not consistent with the SSM plan, the source shall report actions taken within two days after commencing such action.

15A NCAC 2D .1111, 40 CFR Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)

As per 40 CFR § 63.6590 (3) “an existing compression ignition (CI) stationary RICE, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.” Thus, the horizontal grinder (diesel fired 1,000 HP – ID No. ES-4) which is a stationary RICE source and where the ignition of the combustion

source is by ‘compression ignition.’ is **exempted from this regulation.**

6. NSPS, PSD, Attainment Status, 112(r), CAM

NSPS

Emissions of nonmethane organic compounds from the landfill (ID Nos. ES-1, ES-2, and ES-3) cause these sources to be subject to NSPS Subpart WWW “Standards of Performance for Municipal Solid Waste Landfills.”

PSD

This facility is not a major for VOC for PSD purpose.

Attainment Status

Guilford County has been triggered for PM-10 since 3/6/84.

112(r)

This 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.

CAM

The landfills (ID Nos. ES-1, ES-2, and ES-3) and associated gas collection and control system (ID No. GCCS-1) including one candle stick-type flare (14-inch tip diameter, 84 million Btu per hour heat input capacity, ID No. CD-1) and one candle stick-type flare (49.3 million Btu per hour heat input capacity, ID No. CD-3) are subject to NSPS Subpart WWW “Standards of Performance for Municipal Solid Waste Landfills.” This regulation was promulgated after November 15, 1990 and thus these sources are exempt for CAM applicability.

7. Facility Wide Air Toxics

The major sources in this facility combust landfill gas the emissions from which are exempted from the toxic rule, As per the review of Application # 4101086.02A, “Air toxic emissions come from the combustion of landfill gas. Combustion sources are currently exempted from triggering air toxics in accordance with 15A NCAC 2Q .0702 (a)(18). The horizontal grinder (diesel fired 1,000 HP, ID No. ES-4) combusts only diesel, which is a unadulterated fuel and thus exempt from toxic analysis.

8. Construction Permit (Part II)

The sources and control devices listed under Part II of the current permit (The permit shield described in General Condition R did not apply to these sources in the current permit) are removed from this part of the new permit. And since this permit will provide for a 30 day comment period for the public and 45 days for an EPA review, there will no longer be a Part II in the current permit.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-3 (NSPS)	Active portion of landfill	GCC1 CD-1 CD-3	One landfill gas collection and control system (ID No. GCCS-1) including: one candle stick-type flare (14-inch tip diameter, 84 million Btu per hour heat input capacity, ID No. CD-1) and one candle stick-type flare (49.2 million Btu per hour heat input capacity, ID No. CD-3)
ES-4	Horizontal grinder (diesel fired 1,000 HP)	NA	NA

9. Facility Compliance Status

As per the latest inspection report (on IBEAM) done on 03/12/2004 this facility was found to be in compliance.

10. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. Based on the latest inspection, the facility was in compliance with all applicable requirements. The applicant has certified that the facility will be in compliance with all applicable requirements at the time of permit issuance and will continue to comply with these requirements.

11. Facility Emissions Review

There is no change in emissions for this renewal.

12. Stipulation Review

All stipulations are standard for this type of facility. The general conditions are updated with the latest version found in the title V shell.

13. 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 provided to the public under 2Q .0521 above. There are affected states, the affected states include Forsyth County local program and they will be notified.

14. Conclusions, Comments, and Recommendations

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

A consistency determination was not required for this renewal.

Regional Office was provided a draft of this permit and their comments taken into consideration.

Regional Office concurs(?) with RCO recommendation to issue air permit.

15. Table of Changes

Page Number	Condition Number	Change
	Source Listing	All references to unshielded sources are removed
4	2.1 A table of regulations	40 CFR Part 63, Subpart AAAA
4, 5 & 6	2.1 A. 1.	New requirement for 40 CFR Part 60, Subpart WWW
6 & 7	2.1 A. 4.	Regulations for 40 CFR Part 63, Subpart AAAA
9	2. 2 Schedule of Compliance	Schedule to demonstrate compliance with toxics rule
9	General Conditions	Updated General Conditions