

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date:

Region: Winston-Salem Regional Office
County: Randolph
NC Facility ID: 7600336
Inspector's Name:
Date of Last Inspection: N/A
Compliance Code:

Facility Data			Permit Applicability (this application only)				
Applicant (Facility's Name): Waste Management of Carolinas, Inc. - Great Oak Landfill Facility Address: Waste Management of Carolinas, Inc. - Great Oak Landfill 3597 Old Cedar Falls Road Randleman, NC 27317 SIC: 4953 NAICS: 562212 Facility Classification: Before: Greenfield After: Title V Fee Classification: Before: Greenfield After: Title V			SIP: 15A NCAC 2D .1806, 15A NCAC 02Q .0507 NSPS: Subpart WWW, Subpart XXX NESHAP: 40 CFR Part 61 Subpart M PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other:				
Contact Data			Application Data				
Facility Contact	Authorized Contact	Technical Contact	Application Number: 7600336.15A Date Received: 06/22/2015 Application Type: Greenfield Facility Application Schedule: TV-Greenfield Existing Permit Data Existing Permit Number: N/A Existing Permit Issue Date: N/A Existing Permit Expiration Date: N/A				
Shawn Carroll Environmental Protection Manager (910) 274-8869 3920 River Road Wilmington, NC 28411	Gene Barnes Director of Disposal Operations (770) 590-3307 1850 Parkway Place, Suite 600 Marietta, GA 30067	Shawn Carroll Environmental Protection Manager (910) 274-8869 3920 River Road Wilmington, NC 28411					
Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
<No Inventory>							
Review Engineer: Yukiko (Yuki) Puram Review Engineer's Signature: _____ Date: _____				Comments / Recommendations: Issue 10446T00 Permit Issue Date: Permit Expiration Date:			

I. Purpose of Application

Waste Management of Carolinas, Inc. - Great Oak Landfill (Great Oak Landfill) is currently Greenfield which will be located at 3597 Old Cedar Falls Road, Randleman, North Carolina. A permit application for a new Title V facility, 7600336.15A, was received on June 22, 2015. This application will be processed as greenfield permit in accordance with 15A NCAC 2Q .0501(c)(1) for a new Title V air permit and will go through the 30-day public and the 45-day EPA review at this time.

II. Facility Description

The landfill site is on a 667-acre parcel which is owned by the county, and is operated by Waste Management of Carolinas, Inc (Waste Management). Once the construction is completed, the landfill will accept municipal solid waste (MSW) and allowed industrial and construction and demolition (C&D) waste. A 30-year design capacity of the landfill is approximately 37,789,967 yd³ or 28.89 million m³ and an estimated design disposal mass of approximately 28.3 million US tons. Its 10-year design capacity is approximately 7,171,974 yd³ or 5.48 million cubic meters (m³). The landfill's 10-year estimated design disposal mass is approximately 5.378 million US tons or 4.88 million Mg.

III. History/Background/Application Chronology

July 17, 2014	NSPS Subpart XXX was first proposed.
June 22, 2015	Application for a construction and operation permit was received.
October 6, 2015	DAQ requested a modeling analysis for the toxic pollutant emissions that were above TEPR.
November 5, 2015	DAQ received a Toxic modeling evaluation from Mr. David Greene of SCS Engineers.
December 8, 2015	Alex Zarnowski of the AQAB branch completed the modeling review.
December 11, 2015	A draft permit was sent to Mr. Booker Pullen of DAQ for review.
December 15, 2015	A draft permit was sent to Mr. Shawn Carroll of Waste Management, Mr. David Greene of SCS Engineers and Mr. Jalal Adouli of WSRO for review.
December 21, 2015	Mr. Greene submitted comments for the draft permit.
December 22, 2015	Responding to the applicant's comment, I suggested Mr. Carroll to submit an AA form to request the name change.
December 28, 2015	An updated draft was sent to Mr. Greene and Mr. Carroll.
December 30, 2015	Mr. Robert Barker of WSRO reviewed the draft and submitted comments.
January 4, 2015	An updated draft (version 3) was sent to Mr. Greene and Mr. Carroll.
January 12, 2015	A name change request (Form AA) was received. The facility name was changed from "Great Oak Landfill" to "Waste Management of Carolinas, Inc. Great Oak Landfill."
January 12, 2015	Draft permit and the permit review were published for public review. A copy of the permit and the permit review were sent to EPA for review.

IV. Regulatory Review

A. Municipal Solid Waste Landfill (ID No. ES-01): Municipal solid waste landfill is subject to the following regulations. The landfill is not planned to be equipped with a control system at this time. The stipulations were listed in order of the citation numbers.

15A NCAC 2D .0524, 40 CFR Part 60, Subpart WWW “New Source Performance Standards”

This landfill is subject to 40 CFR Part 60, Subpart WWW because the facility was built after May 30, 1991. Based on the landfill’s 10-year design capacity, their estimated waste capacity is 5.48 million m³ or 4.88 million Mg, which would exceed the Title V permit thresholds of 2.5 million m³ or 2.5 million Mg. The most yearly NMOC emission rate projected in the next five years is 34.95 Mg in 2021. Because the projected NMOC emission rates in the next five years are less than 50 Mg per year, the landfill is not required to install a gas collection and control system (GCCS) during this permitting period.

15A NCAC 2D .0524, 40 CFR Part 60, Subpart XXX “Standards of Performance for Municipal Solid Waste Landfills”

On July 17, 2014, the EPA published proposed rule for NSPS Subpart XXX. According to this proposal, MSW landfills that commence construction, reconstruction or modification after July 17, 2014 will be subject to this rule. Because the construction of Great Oak Landfill will be commenced after July 17, 2014, they will be subject to Subpart XXX based on the proposal. Since final rule has not been published at the time of the issuance of this permit, a placeholder for NSPS Subpart XXX will be included in the permit. The landfill must be in compliance with the final rule of Subpart XXX upon promulgation of the said rule.

15A NCAC 2D .1110, 40 CFR Part 61, Subpart M “National Emission Standard for Asbestos”

The landfills that receive asbestos-containing waste are subject to §61.154, “Standard for active waste disposal sites.” According to the applicant, the Great Oak landfill will most likely be receiving asbestos-containing waste. The applicant indicated that the facility will comply this subpart by §61.154(c). Per applicant’s request, the only applicable requirement was added to the permit and other options were omitted.

15A NCAC 2D .1111, 40 CFR Part 63, MACT Subpart AAAA – The facility is not subject to MACT Subpart AAAA since the landfill is not required to install a GCCG system per NSPS Subpart WWW.

V. NSPS, NESHAPS/MACT, NSR/PSD, 112(r), RACT, CAM

Great Oak Landfill is subject to NSPS Subpart WWW and NESHAP Subpart M as described in the Section IV above. Potential total HAPs emissions are 7.47 tpy and the single largest HAP emission is 2.67 tpy for toluene. Therefore, the landfill is classified as a minor source of HAP. Since none of the criteria pollutants’ potential emissions are more than 250 tpy, this facility is PSD minor. The facility is not subject to 112(r), RACT or CAM.

VI. Facility Wide Air Toxics

The facility requested being exempt from the toxic program in accordance with 2Q .0702(a)(27)(A). The landfill will be subject to MACT Subpart M once they start accepting asbestos-contained material. Per NCGS § 143-215.107 (a)(5)(b), however, the DAQ must review the application to

determine if the emission of toxic air pollutants from the facility would present an unacceptable risk to human health before removing the toxic conditions. The original application did not include modeling analysis which was necessary in order to determine whether the facility would present an unacceptable risk to human health. Upon request, Mr. Green of SCS Engineers submitted dispersion model analysis on November 5, 2015. The analysis was reviewed by Alex Zarnowski of AQAB. According to Mr. Zarnowski's memo dated December 9, 2015, the modeling adequately demonstrated compliance with the guideline specified in 15A NCAC 2D .1104. The modeling shows that the highest maximum toxic emission was 48% of AAL for benzene. The emissions used in the modeling were based on maximum waste disposal at the landfill in the year 2021. Considering all the toxic pollutants were below AAL, Great Oak Landfill was exempt from the toxic conditions per 2Q .0702(a)(27)(A). Since this is a new landfill, the landfill is not considered as "active waste disposal site" per §61.141 yet. To ensure that the site will be actually receiving asbestos-contained material, a permit shield will be included.

VII. Facility Emissions Review

The following is a summary of maximum potential annual emissions.

ID #	NMOC (Mg/yr)	NMOC (tpy)	VOC (tpy)	HAP (tpy)	NOx (tpy)	CO (tpy)	SOx (tpy)	TRS (tpy)	PM10 (tpy)
ES-01	34.95	38.52	38.52	7.47	---	---	---	---	---

The emissions were calculated based on the projected emissions in 2021.

VIII. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. 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 pursuant shall be provided to EPA.

IX. Other Regulatory Considerations

- A P.E. seal was included in this application.
- A zoning consistency determination was included this application.
- No PSD minor baseline dates have been triggered in Randolph County at the time of the issuance of the permit.
- The facility is not subject to 112(r), risk management plan.

X. Recommendations

The Greenfield facility application for Waste Management of Carolinas, Inc. Great Oak Landfill located in Randleman, Randolph County, NC has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 10446T00.