



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

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Director

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Solid Waste Section

April 16, 2009

Ms. Jeryl W. Covington, P.E., Director
Environmental Services Department
P.O. Box 3136
Greensboro, NC 27402-3136

Re: Comments on the Application of Permit Modification for Phase III of the White Street Landfill in Greensboro, Guilford County, North Carolina
Permit No. 41-12, Document ID No. 7295

Dear Ms. Covington:

This letter constitutes a review of the permit application is entitled:

- *Permit Modification for Phase III of the White Street Landfill, Greensboro, North Carolina (Application)*. Prepared by: HDR Engineering, Inc. of the Carolinas (HDR), Charlotte, NC. Prepared for: City of Greensboro, NC. March 2008. DIN 7278.

The Solid Waste Section conducted a review of compliance with the Solid Waste Management Rule (Rules), 15A NCAC 13B .1600. Your responses to the following comments will expedite the review of the Application:

1. (Section 3.3, the second paragraph) The proposed new total gross capacity of 6,669,000 cubic yards (cy) is approximately 72% increasing in volume from the original approved the total gross capacity of 3,885,000 cy for the Phase III Subtitle-D MSWLF. This large increment of waste loads will evidently result in additional settlement (both total and differential settlement) of the subsoil underneath the landfill and consequently having effects on the existing leachate collection and removal system and base liner system. Therefore, please conduct the following analysis and calculation:
 - (i) The settlement analysis to ensure that the landfill base, under the proposed capacity, retain sufficient vertical separation distance above the seasonal high groundwater table and bedrock required by Rule .1624(b)(4).
 - (ii) The examinations to verify, under the proposed capacity, if the existing leachate collection and removal system and base liner system can be functioned as original designed, such as recalculation of the stress on geosynthetic materials (geombrane, geotextiles, geonets, etc.), piping system, leachate quantity, etc.
2. The proposal of revising the approved final contours of the Phase III Subtitle-D MSWLF results in 10% more increment of quantity of solid wastes to be disposed of in the landfill. This proposal is considered as a substantial amendment of the existing permit in

accordance with the GSNC Volume 15 Chapter130A-294b(1)(1)a.2; therefore, the City of Greensboro must conduct all applicable actions required by the GSNC Volume 15 Chapter130A-294b(1), such as local government approval, a public hearing, etc. Please provide documentations to demonstrate the actions required by statutes have been properly conducted.

3. The 2-feet thick final cover system used for calculating veneer slope stability is different from the one (3.5-feet thick) proposed in Section 6.2 of the Closure Plan. Please re-calculate veneer slope stability by using the correct thickness of the final cover system.
4. (Section 6.2) Please add the minimum criterion of the interface friction angles between geotextile/soil and geotextile/textured geomembrane no less than 27.3 degree, concluded by the veneer slope stability, to the final cover system design.

Please incorporate requested information, document, revisions, and responses to a new submittal including a written hard copy and an electronic copy (including figures) of the revised Application. The Solid Waste Section appreciates your efforts and cooperation in this matter. If you have any questions or would like to schedule a meeting to discuss this matter further, please contact me at (919) 508- 8507.

Sincerely,



Ming-Tai Chao, P.E.
Environmental Engineer II
Solid Waste Section

Cc: Michael D, Plummer, PE, HDR
Donna Wilson, DWM
Jason Watkins, DWM

Ed Mussler, Permitting Branch Supervisor
Hugh Jernigan, DWM
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