



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

October 16, 2008

Mr. Haywood Phthisic, Director
Johnston County Public Utilities Department
P O Box 2263
Smithfield, North Carolina

Re: Application for Permit to Construct Phase 4A, Cell 3, and Review of Closure/Post-Closure Plan for the C&D unit, in accordance with .0547
Johnston County MSW and C&D Landfill
Permit No. 51-03
Johnston County, Doc ID 6031

Dear Mr. Phthisic:

An application for a Permit to Construct for Phase 4A, Cell 3 has been submitted to the Division of Waste Management, Solid Waste Section (Section) on your behalf by your consultant RSG Engineers. In accordance with GS 130A-295.8(e), the Section has reviewed your application and found it to be complete within the meaning of the statute. A determination of completion means that the application includes all required components but does not mean that the required components provide all the information that is required for the Section to make a decision on the application. We have performed a technical review of the submitted application and request the following:

1. Please provide a summary description of the history at the landfill in the application, to include the progression of the phases and vertical expansions, with dates and a brief identification of liners and final covers for the different phases.
2. The property line boundary, from Plat Book 59, Page 437, does not appear to match the property line boundary as shown on drawing S1 (in the area of the NCDOT borrow area). Please clarify.
3. The settlement calculations in the Appendix show the calculated settlement at 7 points. Please provide the calculation of the final slope of the liner between each segment to show positive leachate drainage. Please provide confirmation that the post-settlement bottom elevation of the liner system is a minimum of 4 feet above the seasonal high groundwater table.
4. It appears that the flatter portion of Cell 3 was not included in the original approved plans. Please address why this was changed, and address settlement and differential settlement issues for this flatter portion, to ensure adequate positive drainage of leachate.
5. Please provide calculations that demonstrate that the Cell 4A sump is sized to handle the leachate volumes for cells 1, 2, and 3. Please provide a discussion and detail drawing of how the leachate will be moved from the 2 leachate systems to the sump.

6. Why is the surface water collection on top of the final cover designed to channel all of the surface water under the geomembrane of the final cover? This contradicts the purpose of the final cover system to prevent infiltration of surface water. If there is a leak, how will it be found? If by subsidence, the leak will be present for a long time before it is discovered. Please explain why this design was chosen over a design that involves pipes or drainage channels on top of the final cover. Please address how this would be maintained to prevent clogs from grass, leaves, silt, etc. Please address why this design still leaves exposed pipes on the surface of the landfill for all side slope areas which do not have the geomembrane final cover.
7. Drawing FC1 – Please identify the type of final cover that consists on top of Phase 3 for the strip between Phase 4A cell 2 and the C&D Area 2 cell 2. The entire top of Phase 3 should have a final cover with geomembrane.
8. Please provide at least one cross-section that shows the bottom and top of Phase 3 and 4 MSW areas, the C&D Area 1 and 2 areas, and the Phase 4A areas.
9. In the text, please describe how all the liner components will be connected from cell 1 to cell 3.
10. Drawing FC3 – In text or on the drawing, please explain how the leachate seep collection trenches will be used – in the intermediate cover, after final cover is placed, etc. Leachate outbreaks should not occur through the geomembrane after final cover is placed, as it appears to indicate on the drawing.
11. Please provide a detail drawing of the final cover anchor trench.
12. Drawing detail 2/FC2 – Please clarify where the outlet pipe discharges in relation to Cell 3.
13. Please indicate the locations of the white goods, tire, battery, and waste oil collection areas on the existing conditions drawing.
14. Please include a drawing that shows all future phases, as was in the March 2006 drawings.
15. Operating Plan - Section 2.2.1 - Please correct the reference to the NCAC for the definition of acceptable waste.
16. Operating Plan - Section 2.3.1 – Please correct the reference to the NCAC for the definition of hazardous waste.
17. Operating Plan - Section 2.5.3.2 – Please explain how the geosynthetic rain cover is perforated in a new waste area.
18. Operating Plan – Please incorporate the details and operating plan of the Tarpomatic alternate daily cover.
19. Operating Plan – Please describe the operation and application of the approved spray irrigation system for reclaimed wastewater in the text of the plan, similar to the discussion of the yard waste processing area, and reference the operating plan in the appendix.
20. Operating Plan – Please add discussion of the Bulk Reclaimed Water Transfer Station recently approved on the landfill property. Address site security between the station and the landfill and show the location on the site map.
21. Operating Plan - Please provide a brief discussion of the proposed leachate pond equalization basin modifications.
22. Please provide the actual leachate volumes that have been collected in the leak detection system for Phase 4A, historically and currently.
23. The operating plan should address routine leachate collection line cleaning and inspections. All leachate collection lines shall be designed and constructed to permanently allow cleaning and remote camera inspection. All leachate collection lines shall be cleaned at least once a year, except that the Department may allow leachate collection lines to be cleaned once every

two years if the facility has continuous flow monitoring; and the permit holder demonstrates to the Department that the leachate collection lines are clear and functional based on at least three consecutive annual cleanings. Remote camera inspections of the leachate collection lines shall occur upon completion of construction, at least once every five years thereafter, and following the clearing of blockages.

24. Engineering Plan – Section 2.3.1 - Please clarify what the cut will be in the earthwork cut and fill.
25. Please clarify if the stormwater/leachate separation system will involve welding flaps to the liner.
26. Please provide a copy of the facility plan in this report, updated as needed. The plan should describe the increased capacity, and compare the increase to the capacity in the facility plan that was approved in August 2006.
27. Please include with this application a copy of the approved water quality monitoring plan, following Rule .1623 (b)(3).
28. Closure plan – Please provide a schedule for completing all activities necessary to satisfy the closure criteria in Rule .1627 (c).
29. Please address financial assurance submittal and mechanism in the text of the application. Please update the cost estimates in the application to be consistent with the Closure/Post-closure plan for the C&D units submitted in June 2008. Why has the post-closure costs been reduced from the 2007 submittal (\$8,340,528)?

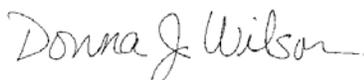
Please submit response to comments as replacement pages to the application report. Only one paper copy is necessary, but an electronic copy is also needed, either sent by email, or on a CD.

We have completed a technical review of the Closure and Post-closure plans and cost estimates for the C&D units, in accordance with Rule .0547, and we request that the CQA plan for closure activities and the water monitoring plan be included in the submittal.

For your reference, the Solid Waste Section rules can be found on the Section's website at <http://www.wastenotnc.org/swhome/rule.asp>; and the North Carolina General Statutes concerning solid waste are located at http://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_130A/Article_9.html.

If you have any questions or comments, please contact me at (919) 508-8510, or by email at donna.wilson@ncmail.net.

Sincerely,



Donna J. Wilson
Environmental Engineer
Solid Waste Section

cc: Pieter Scheer Smith, RSG&A
Rick Proctor, Johnston County Solid Waste Manager
Dennis Shackelford, Central Regional Supervisor, DWM
Mary Whaley, Waste Management Specialist, DWM