



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

Pat McCrory
Governor

Dexter R. Matthews
Director

John E. Skvarla, III
Secretary

June 28, 2013

Mr. Tim Broome, Director
Johnston County Public Utilities Department
P O Box 2263
Smithfield, NC 27577

Re: Application for permit renewal of the Johnston County C&D Landfill
Johnston County MSW and C&D Landfill
Permit No. 51-03
Johnston County, Doc ID 19190

Dear Mr. Broome:

The North Carolina Solid Waste Section has received and reviewed the above referenced application. In accordance with GS 130A-295.8(e), the Section has 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. The cover letter should state that there are significant changes proposed in the groundwater monitoring plan and the landfill gas monitoring plan, and should briefly describe those changes. Future submittals should provide notice of significant changes in the cover letters.
2. Several of the deeds that have been previously referenced for some parcels are not deeds, but are recorded solid waste permits or solid waste approval letters. Please provide land deeds for:
 - a. The parcel containing Phase 1 and 2. On maps, the deed referenced for this parcel, Deed 775/page 410, is not a property deed, but is a recorded solid waste approval letter from 1974.
 - b. The parcel in the far northeast corner, containing the south part of Phase 3 and C&D Area 2. This parcel is described as Tract 2 in the recorded Solid Waste Permit found in Deed 952/page 374.
 - c. Parcel 15I08028C, which contains the yard waste processing area (new area). The deed 763/525 is not correct for this parcel. [Deed 763/525 describes the parcel containing Phase 4 and the north part of Phase 3.]

- d. Parcel 15I08032B, which contains the scales, scalehouse, and landfill maintenance building. The drawing indicates that the deed is Page E-3, page 1, but this is not on the County's website to confirm if it is correct.
 - e. Parcel 15I08032C, which is the long parcel just south of Phase 1 and 2.
 - f. The parcel east of Buzzard Branch to be added to the landfill property currently owned by NCDOT (to be purchased by the County?).
3. On Figure 1, the deed reference for the borrow area east of Buzzard Branch should be Deed 2109, page 599 instead of page 509.
 4. Please provide a draft of the recombination drawing for the landfill property.
 5. The Facility and Engineering Plan submitted is essentially the same as an earlier submittal. However, it is not the most recent submittal. A more recent version is dated Jan. 2009. Items such as the capacity table are not up-to-date in this submittal. Other examples:
 - a. Sections 1.1 and 2.2.1, Operation Plan Section 1.0 – Update text regarding C&D Areas 1 and 2 and MSW Phase 4A Cell 3 that are in use.
 - b. Section 2.6.8.2 and 5.2.2 – The sentences that state that no LFG control features are planned as part of the C&D Area 2 final cover system should be updated. LFG features are required as part of final cover.
 - c. Section 2.2 – Please add to the list of solid waste management activities onsite the various other special waste collected, including batteries, tires, oil, electronics, etc.
 6. Drawings – Please provide a drawing (or sketch in the operating plan) that shows more detailed locations of other solid waste management activities, including white goods, batteries, tires, MSW recyclables, electronics, etc. Also include any groundwater or landfill gas wells that are in the vicinity of these activities. Is there a cemetery in this area (as indicated on Plat Book 59, page 437)?
 7. Operating Plan:
 - a. Section 2.3.1 – Please update this section to include all wastes that are banned in NC landfills. Reference - <http://portal.ncdenr.org/web/wm/sw/landfillbans>.
 - b. Section 2.6 – For the yard waste processing area, wood waste and yard waste should be stored in windrows with breaks between the rows, for both the pre-processed material and post-processed material. This is to prevent excessive temperatures in the wood material that could lead to spontaneous combustion, and also allows access to all areas of the material in the event of a fire. The material should be stored in windrows of maximum height 30 feet and maximum width 50 feet, with unlimited length, within the designated area. A buffer of 50 feet should be maintained to the property line. Please update the text in this section.
 - c. Section 2.7 – Please address how batteries are stored to prevent fluid leakage on the ground.
 - d. Please describe the depth of intermediate cover over Phase 5 in the operating plan, and maintenance activities of the cover. Rules require that the cover be a minimum of 1 foot and be adequate to prevent threats to human health and the environment.
 - e. Please add to the text a discussion of the leachate line flushing and camera inspections that have been performed thus far, and a summary of the results.

- Include a drawing or sketch to accompany the discussion that identifies the leachate pipes that were flushed and camera inspected.
- f. Section 3.3.6 - Please provide an update regarding the construction and operation of the leachate pond/equalization basin.
 - g. Please include a discussion of the leachate outbreak interceptor trenches that have been installed.
8. Landfill gas collection system – Please provide a summary discussion of the design and operation of the gas collection system.
 9. Closure and post-closure costs:
 - a. The water quality sampling and landfill gas monitoring costs that are shown in Table 3.3 as being assessment and corrective action costs should be moved and included with the post-closure costs.
 - b. Why are the post-closure water quality monitoring costs per year decreased from the 2008 cost estimates (\$72,000 and \$34,000 in 2008; and \$66,000 and \$34,000 in 2012)? The costs should also be updated for inflation using each year's inflation factor. Costs should include assessment monitoring costs for applicable wells.
 - c. For potential assessment and corrective action costs, provide a breakdown of costs following the attached guidance.
 - d. Please provide a summary sheet that lists and adds all the associated cost estimates to one total number.
 10. Water monitoring plan – Because of the significant proposed changes, Christine Ritter is reviewing this plan and will provide additional comments separately. We would like to set up a meeting with you to discuss the proposed changes (removing some wells from the monitoring network and decreasing the monitoring frequency of others).
 - a. Please provide a discussion of assessment monitoring (history to this point) and the current status of assessment monitoring/corrective measures.
 - b. Please include a map showing the surface water sample locations. The map should show all surface water streams and water bodies on the landfill property.
 - c. Not all wells are shown on Figure 1. Please add missing wells.
 11. Landfill gas monitoring plan – Because of the proposal to abandon monitoring wells, Christine Ritter is also reviewing the plan changes and will provide additional comments separately.
 - a. The plan should discuss the locations of the monitoring wells.
 - b. Provide more information on the proposed well abandonment. The stream is intermittent in the area of wells 8 through 11. Why are there are passive vent trenches installed next to some of the wells, as indicated on the figure?
 - c. Please provide a summary discussion of gas levels detected for all past sampling events for these wells.
 - d. When will LFG-7 be replaced?
 12. Please include the locations of onsite benchmarks on an engineering drawing.

The permit fee for the permit renewal (which has been paid) will include the Permit to Construct for C&D Area 2 Cell 2, if the application for the PTC is submitted within the next 5 years. The MSW Permit to Operate expires Sept. 2014, and the application is due 6 months prior to expiration.

Please submit responses to comments as replacement pages to the application. Replacement pages should list the date the submittal was prepared, the revision number, and page number.

If you have any questions or comments, please contact me at (919) 707-8255, or by email at donna.wilson@ncdenr.gov.

Sincerely,

A handwritten signature in cursive script that reads "Donna J. Wilson".

Donna J. Wilson
Environmental Engineer
Solid Waste Section

Enclosure

cc: Pieter Scheer, Smith Gardner, Inc.
Rick Proctor, Johnston County Solid Waste Manager
Dennis Shackelford, DWM
Mary Whaley, DWM

Municipal Solid Waste Landfill Technical Assistance Document for a Potential Assessment and Corrective Action Cost Estimate

NC Solid Waste Rule		Quantity	Unit Cost	Annual Events	Initial Cost Estimate	Events During 30 Year PC	Total Cost Estimate
15A NCAC 13B .1634	Appendix II background sampling of GW sampling network (4 events per sampling location)						
15A NCAC 13B .1634	Installation of at least two wells (deep and shallow) at the compliance boundary						
15A NCAC 13B .1634	Appendix II sampling of original well network and compliance boundary wells annually (First semi-annual monitoring event)						
15A NCAC 13B .1634	Appendix I and II detects sampling of original well network and compliance boundary wells annually (Second semi- annual monitoring event)						
15A NCAC 13B .1634	Installation of additional monitoring wells to characterize the nature and extent (N&E) of the contaminant plume based upon the types of waste disposed in the landfill, the projected amount of waste to be disposed in the landfill, the location of the landfill, and potential receptors of releases from the landfill						

15A NCAC 13B .1634	Appendix II background sampling of N&E well network (4 events per sampling location)						
15A NCAC 13B .1634	Appendix II sampling N&E well network annually (First semi-annual monitoring event)						
15A NCAC 13B .1634	Appendix I and II detects sampling of N&E well network (Second semi-annual monitoring event)						
15A NCAC 13B .1635	Assessment of Corrective Measures (Report, Public Notice, and Public Meeting)						
15A NCAC 13B .1636	Select a remedy based upon the types of waste disposed in the landfill, the projected amount of waste to be disposed in the landfill, the location of the landfill, and potential receptors of releases from the landfill						
15A NCAC 13B .1636 / .1637	Corrective Action Plan submittal, approval, and implementation						
15A NCAC 13B .1636 / .1637	Installation of additional monitoring wells to monitor effectiveness of selected remedy						
15A NCAC 13B .1636 / .1637	Maintenance and repair of additional monitoring wells						
15A NCAC 13B .1636 / .1637	Sampling and analysis of additional wells						

15A NCAC 13B .1637	Contingency plan implementation						
15A NCAC 13B .1637	Corrective Action Remedy is complete						
Miscellaneous Expenses							

*In accordance with NCGS 130A 295.2(h), the Department may require financial assurance in a higher amount and may increase the amount of financial assurance required of a permit holder at any time based on the types of waste disposed in the landfill, the projected amount of waste to be disposed in the landfill, the location of the landfill, and potential receptors of releases from the landfill.