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

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September 8, 2010

Mr. Tom Miller
Solid Waste Director
P.O. Box 3289
130 S. Queen Street
Kinston, North Carolina 28501

Re: Technical Review and Approval Letter
Design Hydrogeologic Report
Lenoir County MSW Landfill, Phase 2
LaGrange, Lenoir County, North Carolina
Permit No. 54-09, Document ID No. 11539

Dear Mr. Miller:

The North Carolina Solid Waste Section has completed a technical review of the August 26, 2010 revisions to the November 2009 Design Hydrogeologic Study of the Lenoir County MSW Landfill Phase 2 expansion. The Section engineer will send comments on the Permit to Construct under separate cover.

The Water Quality Monitoring Plan is amended to include three (3) new groundwater monitoring wells associated with Phase 2. The proposed groundwater monitoring wells to be installed are MW-19S, MW-19D, and MW-20. The total number of groundwater monitoring wells is nine (9) and consist of MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19S, MW-19D, and MW-20. Existing surface water sampling point SW-3 and one leachate collection point labeled LAGOON will continue to be sampled. Eight piezometers installed during subsurface exploration will need to be abandoned prior to construction activities commence at Phase 2. The 8 piezometers to be abandoned are P2-2, P2-3, P2-5S, P2-5D, P2-6, P2-7, P2-8, and P2-12.

A Landfill Gas Monitoring Plan was reviewed and approved for the areas consisting of the existing Phase 1 and proposed new Phase 2 of the MSW Landfill. Fourteen (14) landfill gas monitoring wells including MP-1 through MP-14 will be sampled quarterly to insure that landfill gas does not exceed the lower explosive limit at the facility boundary and 25% of the lower explosive limit at facility structures. The Section recommends a Professional Geologist be on site during the installation of new landfill gas monitoring wells. The design and construction of the landfill gas monitoring wells shall be in accordance with the applicable North Carolina Well Construction Standards listed in 15A NCAC 2C .0100 and the Section's Methane Monitoring Guidance Document. If methane gas levels exceed the specified limits, the owner or operator must adhere to requirements in 15A NCAC 13B .1626(4).

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The Design Hydrogeologic Report (including the Water Quality Monitoring Plan and the Landfill Gas Monitoring Plan) meet the criteria required in 15A NCAC 13B .1623(b), .1624(b)(4), and .1626(4) and therefore, this portion of the Permit to Construct application is approved. Please submit a pdf formatted copy of the final approved Design Hydrogeologic Study to the Solid Waste Section.

Piezometers, groundwater monitoring wells, and borings, located in the proposed phase for construction may be abandoned now or after a Permit to Construct is issued by the Solid Waste Section. Prior to construction of the new phase, all piezometers, groundwater monitoring wells, and borings located within the footprint must be properly abandoned by overdrilling first (exception of non-cased borings) and sealed with grout in accordance with 15A NCAC 2C.0113(d) entitled "Abandonment of Wells".

Well abandonment records (GW-30 form) for each decommissioned piezometer, boring, and groundwater monitoring well must be certified by a Licensed Geologist in accordance with rule .1623(b)(2)(I) and submitted to the Solid Waste Section in accordance with 15A NCAC 02C.0114(b). After the piezometers and/or groundwater wells are abandoned and new landfill gas well(s) constructed, submit an updated monitoring well location drawing.

The new groundwater monitoring wells associated with the new phase must be sampled for the Appendix I constituent list, including Mercury, Chloride, Manganese, Sulfate, Iron, specific conductance, pH, temperature, Alkalinity, Total Dissolved Solids prior to the Solid Waste Section issuing the Permit to Operate. In addition to a hard copy report, provide the Solid Waste Section with an electronic copy of the groundwater and surface water monitoring data collected at the landfill facility. Guidelines for sampling groundwater and surface water, and submitting data electronically can be located at the Solid Waste Section's web site: http://wastenotnc.org/swhome/technical_assistance.asp

Additional Geologic, Ground Water and Monitoring Requirements will be included in the Permit to Construct.

If you have any questions, you may contact me at (919)508-8506.

Sincerely,

Christine Ritter

Christine Ritter
Hydrogeologist
Solid Waste Section

Cc: Mark Brown, Municipal Engineering Services Company
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Ed Mussler, DWM
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