



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

Beverly Eaves Perdue  
Governor

Dexter R. Matthews  
Director

Dee Freeman  
Secretary

June 7, 2010

Mike Griffin,  
Griffin Brothers Companies  
North Mecklenburg C&D Landfill  
Infill Expansion Area  
19109 West Catawba Avenue, Suite 200  
Cornelius, NC 28031-5613

RE: North Mecklenburg C&D Landfill  
Infill Expansion Area  
Mecklenburg County, North Carolina  
Approval of Design Hydrogeologic Report  
Permit No. 60-13  
Document ID No. 10789

Dear Mr. Griffin:

I have reviewed the Design Hydrogeologic Report dated April 2010, and supplemental documentation, (i.e. revised Water Quality Monitoring Plan – May 26, 2010 - Appendix 6 of the Design Hydrogeologic Report and the revised Gas Control Plan - May 17, 2010- Appendix 7 of the Design Hydrogeologic Report) for the C&D Infill expansion between closed Expansion 1 C&D landfill and active Expansion II C&D landfill.

The Water Quality Monitoring Plan is amended to include sampling of ten (10) detection groundwater monitoring wells. Most of the wells are existing and will be renumbered MW-1 through MW-10. The location of groundwater monitoring wells are located on Drawing S19 – “Monitoring Plan”– in Appendix 10 of the Design Hydrogeologic Report. Existing piezometers, groundwater wells, and borings located within the footprint of this new phase are to be abandoned (sealed) prior to construction activities commencing at this phase. Existing surface sampling locations SW-1, SW-2, SW-3, and SW-4 will remain the same. Additional surface sampling points, SW-5 and SW-6 will be added to the sampling program. SW-5 will be located at the inlet (upstream) and SW-6 will be located at the outlet (downstream) of the buried pipes that will direct surface water beneath the Infill Expansion area as indicated on Drawing S19.

The Gas Control Plan states a total of eleven (11) additional new gas wells monitoring wells will be installed. Gas monitoring wells MW-1 through GMW-8 are existing. GMW-1, GMW-2, and GMW-3 will be abandoned prior to construction commencing of the Infill expansion phase. Drawing S19 shows the location of the existing gas monitoring wells and the approximate location of the proposed eleven (11) new gas monitoring wells. The proposed new gas monitoring wells are not labeled on this drawing, but need to be labeled appropriately at the time of construction. The Section recommends a Professional Geologist be on site during the installation of the 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 and the Gas Control Plan. The landfill gas monitoring wells shall be located as depicted on Sheet S19. Upon completion of the landfill gas monitoring well installations, boring logs and well construction records for each well shall be submitted to the Section. The gas wells and specified structures shall be sampled according to the schedule stated in the Gas Control Plan. Also, the Gas Control Plan shall meet the criteria required in 15A NCAC 13B .0544(d).

The Design Hydrogeologic Report (including the Water Quality Monitoring Plan, and the Gas Control Plan) meet the criteria required in 15A NCAC 13B .0538(b), 13B.0540(2), and 15A NCAC 13B .0544. An electronic pdf format copy of the approved Design Hydrogeological Report (ID Document No. 10790) can be obtained on the Solid Waste Section's website located at: <http://wastenotnc.org/sw/swfacilitylist.asp>

**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. Please adhere to the following conditions:**

Prior to construction of the phase or cell(s) within the 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".

- a. In areas where soil is to be undercut, abandoned piezometers, monitoring wells, and borings must not be grouted to pre-grade land surface, but to the proposed base grade surface to prevent having to cut excess grout and potentially damaging the wells.
- b. 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 .0538(b)(2)(J) and submitted to the Solid Waste Section in accordance with 15A NCAC 02C.0114(b).

The new groundwater monitoring wells and new surface water sampling point(s) associated with the new phase must be sampled for the Appendix I constituent list,

Mr. Mike Griffin,  
Griffin Brothers Companies  
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Design Hydrogeologic Report Approval - Infill Expansion Area  
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including Mercury, Chloride, Manganese, Sulfate, Iron, specific conductance, pH, temperature, Alkalinity, and Total Dissolved Solids, and Tetrahydrofuran 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](http://wastenotnc.org/swhome/technical_assistance.asp)

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

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If you have any questions, please do not hesitate to call me at (919) 508-8524.

Sincerely,



Brian Wootton  
Hydrogeologist  
NC Solid Waste Section

cc:     Ron Gilkerson                     Griffin Brothers  
          Thomas Bolyard                 Enviro-Pro, P.C.  
          Robert Kendrick             BP Barber  
          Ed Mussler                     NC Solid Waste Section  
          John Murray                    NC Solid Waste Section  
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