



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

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

July 6, 2011

Charlie Brushwood,
Davidson County Landfill
1242 Old Highway 29
Thomasville, NC 27360

RE: Davidson County C&D Landfill
Permit Amendment Application - Phase 3 and 4 Expansion
Davidson County, North Carolina
Approval of Design Hydrogeologic Report, Water Quality Monitoring Plan,
and Landfill Gas Monitoring Plan
Permit No. 29-06
Document ID No. 14310

Dear Mr. Brushwood:

The North Carolina Solid Waste Section has completed a technical review of the Design Hydrogeologic Report (including the Water Quality Monitoring Plan) - DIN 14309 and the Landfill Gas Monitoring Plan DIN 14308, submitted as part of the Permit to Construct Application for Davidson County C&D landfill Phase 3 and 4 expansion.

The Water Quality Monitoring Plan is amended to include sampling of two (2) additional detection groundwater monitoring wells, CDMW-6 and CDMW-7 (installed November 2010). Existing detection groundwater monitoring wells, CDMW-2, CDMW-3, CDMW-5, and upgradient groundwater monitoring well, MW-1 shall continue to be monitored. Existing detection groundwater monitoring well, CDMW-04A will be abandoned (sealed) when construction commences at Phase 4. One surface sampling point, SW-5 will be added to replace location SW-3, which has been reported dry during monitoring events. The locations of groundwater monitoring wells are shown on Figure 1, titled "Proposed Monitoring System".

The Landfill Gas Monitoring Plan includes the addition of four (4) proposed new gas monitoring wells, designated as CDLF-1 through CDLF-4. The landfill gas monitoring wells shall be constructed according to the Landfill Gas Monitoring Plan and the wells initially sampled prior to waste operations commencing. 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 Design Hydrogeologic Report (including the Water Quality Monitoring Plan), and the Landfill Gas Monitoring Plan) meet the criteria required in 15A NCAC 13B .0538(b), and 15A NCAC 13B .0544 and therefore, this portion of the Permit to Construct Application is approved.

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 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).

After the piezometers and/or groundwater wells are abandoned and new landfill gas monitoring well(s) constructed, submit an updated drawing depicting surveyed monitoring well locations.

The new groundwater monitoring wells and new surface water sampling point(s) associated with the new phases must be sampled for the Appendix I constituent list, 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://portal.ncdenr.org/web/wm/sw/envmonitoring>

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

Mr. Charles Brushwood,
Davidson County C&D Landfill
Design Hydrogeologic Report Approval – PTC-
Expansion Area (Phases 3 & 4)
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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: Joan Smyth
Pieter Scheer
Ed Mussler
Allen Gaither
Central File

Richard Smith Gardner & Associates
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