



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

July 29, 2005

Mr. Barry Edwards, Director
Utilities and Engineering
Catawba County
PO Box 389
Newton, NC 28658-0389

RE: Closure of Blackburn Demolition Landfill, Cell No. 1
Permit No. 18-H
Catawba County, North Carolina

A review of the available file data has been made by the Hydrogeologic Unit of the Solid Waste Section. Several amendments to the monitoring plan (associated with this closed cell) are necessary in order for a letter of closure to be issued by the Solid Waste Section.

According to documentation provided, two (2) downgradient ground-water monitoring wells are currently being sampled at this unit, MW-2, and MW-3. Upgradient ground-water monitoring well, MW-20 is also included in the sampling program. Former ground-water monitoring well, MW-1 was abandoned (sealed) on August 24, 2004. According to Sheet C-1 dated April 2004, provided by McGill Associates, downgradient ground-water monitoring well, MW-3 is located 260 feet from the waste boundary. (Note that ground-water monitoring well MW-1 is active on this map). The Compliance Boundary for facilities permitted after December 30, 1983 is established at either 250 feet from the waste boundary or 50 feet within the property boundary, whichever is less. In most situations, for compliance monitoring purposes, monitor wells should be installed at or near the Review Boundary, (midway between the waste boundary and the Compliance Boundary). There are some exceptions that would warrant placing wells other than at the Review Boundary, (i.e. situations that hinder drilling equipment accessibility, such as steep terrain, overhead power lines. Also, preferential flow pathways that may lie between the Review Boundary and waste boundary.)

For compliance monitoring purposes, an additional ground-water monitoring well shall be constructed between the northeast corner of the waste boundary and monitoring well No. 3 (approximately 125 feet from the waste boundary). The proposed approximate location of the monitor well is highlighted (depicted as a small black square) on the attached map (Sheet C1). Ground-water sampling

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from MW-3 shall become inactive for now, unless future ground-water sampling results from nearby ground-water monitoring wells depict elevated concentrations and/or exceedances of 2L Groundwater Standards, which may warrant resampling of this well again.

Also, an additional ground-water monitoring well shall also be installed near the preferential flow path (contour interval 866 elevation, east of the footprint) depicted on the same attached map, revised C-1 (also depicted as a small black square). The reason for this new well location is to monitor any potential ground-water constituents that may possibly migrate offsite via this preferential flow path.

The two (2) new ground-water monitor wells shall be installed so the well screen brackets the top of groundwater table. The wells shall be constructed according to specifications in the *North Carolina Well Construction Standards (15A NCAC 2C.0108)*.

Well Construction Records are to be submitted once the wells are constructed, developed, and sampled according to *North Carolina Well Construction Standards (15A NCAC 2C.0114)*.

After installation of the wells, submit a revised site map similar to C1, depicting the location of the two (2) new ground-water monitoring wells, location of existing ground-water monitoring well, MW-2 and inactive ground-water monitoring well, MW-3.

The new and existing ground-water monitor wells associated with the closed landfill (Unit No. 1) shall be monitored for the entire constituent list and monitoring schedule, according to the Sampling and Analysis Requirements for Construction and Demolition and Closed Sanitary Landfills N.C. Solid Waste Section.

Sampling of existing ground-water wells MW-2, MW-20, and the two (2) new ground-water monitoring wells shall continue until the SWS deems that sampling is no longer necessary.

In conclusion, the monitoring plan associated with closure of this cell needs to be approved by the Solid Waste Section before a closure letter is issued.

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If you have any questions or comments regarding this letter, please contact me at the Solid Waste Section at (919) 715-8524.

Sincerely,



Brian Wootton
Hydrogeologist
Solid Waste Section

cc:	Jim Barber	Solid Waste Section
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