

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



July 12, 1996

Mr. Bobby Johnson
Superintendent of Public Works
Lee County
P.O. Box 1968
Sanford, NC 27331-1968

| Fac/Perm/Co ID # | Date | Doc ID# |
|------------------|------------|----------|
| 5301 | 08-04-2011 | DIN/4710 |

RE: Replacement of MW-12 at Lee County Sanitary Landfill
Permit #53-01

Dear Mr. Johnson,

Lee County is authorized by the Solid Waste Section to proceed with the installation of a ground-water monitoring well at the Lee County Sanitary Landfill, at the location agreed upon during our site visit yesterday. This well is to be a replacement of existing well MW-12, as requested in the Section's letter of June 10, 1996.

The monitoring well shall be designed and constructed according to the following conditions:

1. The monitoring well is to be constructed according to the specifications in the North Carolina Well Construction Standards (15A NCAC 2C .0108) and as illustrated by the "Typical Monitoring Well Schematic" diagram enclosed.
2. The monitoring well is to be placed in the approved location in areas free of garbage, refuse or debris.
3. The monitoring well is to be drilled to a depth, and the screens placed at vertical locations, that will ensure that future drought conditions, which may lower the water table, will not render the monitoring system ineffective.
4. Shallow monitoring wells are to be installed with a 15 foot screen with the top of the screen set just above the seasonal high water table, unless hydrogeologic conditions justify changes in this design. Tops of screens need to be set at least five feet below ground surface to allow adequate seal from surface water infiltration, even though this will result in screen tops being slightly below the water table in those locations with shallow ground water.

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5. The sand pack should extend no more than two feet above and one foot below the screen. A bentonite seal of at least one foot thickness should be installed above the screened interval and be allowed adequate time to hydrate prior to grouting the remaining annular space.
6. Monitoring wells are to be thoroughly developed after construction to reduce suspended solids and to establish equilibrium with the aquifer.

I have attached a copy of the *Sampling and Analysis Requirements for Construction and Demolition Landfills and Closed Sanitary Landfills* for your reference. The constituents in this list differ from the Appendix I list for Subtitle D landfills, in that only eight inorganic constituents are included.

Samples from several of the monitoring wells at the facility have elevated metals concentrations, which appear to be due to suspended solids in the wells. The Section recommends that all of the wells at the facility be thoroughly developed during the next semi-annual sampling event.

A closure letter for the sanitary landfill units can be issued upon receipt of construction records and boring logs for the new well. Initial sampling of the new well can be done during the second semi-annual sampling event for 1996.

If you have any questions or comments regarding this authorization to upgrade the existing ground-water monitoring system, please contact me at the Solid Waste Section at (919) 733-0692, extension 342.

Sincerely,



Jim Bateson
Hydrogeologist,
Solid Waste Section

cc: Russ Patterson; PXS, Inc.
Jim Barber; Solid Waste Section
Bobby Lutfy: "

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
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June 10, 1996

Mr. Bobby Johnson
Superintendent of Public Works
Lee County
P.O. Box 1968
Sanford, NC 27331-1968

RE: Post-Closure Water Quality Monitoring
Lee County Landfill; Permit #53-01

Dear Mr. Johnson,

The Solid Waste Section has reviewed the well completion records and map showing the six new detection monitoring wells installed in September 1995 at the Lee County Landfill. Mr. Larry Rose and I visited the facility on May 13, 1996 to inspect the wells and to locate some of them on the topographic base map prepared by McKim and Creed Engineers, P.A. as part of an earlier permit application.

New monitoring well MW-12 is located such that it cannot provide groundwater quality information within the 250-foot compliance boundary of the facility. The well is too far from waste, and is located across a groundwater divide from the landfill. Apart from this, the well is not constructed to specification, with fewer than five feet of grout plus bentonite seal between ground surface and the screened interval or sand pack. MW-12 will need to be replaced with another well located between the two drainages at the eastern end of the facility. As discussed during our conversation on that part of the site on August 7, 1995, a well at such a location would be needed to monitor the southeastern part of the landfill ("Cell 1").

During our discussions at the site, Jim Barber and I requested that Lee County or its consultants submit a plan for upgrading the water quality monitoring system at the facility. Operators are required to obtain written authorization from the Solid Waste Section before installing monitoring wells at a landfill. Lee County could have avoided the need to install an additional well if a plan had been submitted for review and authorization as required, before installation.

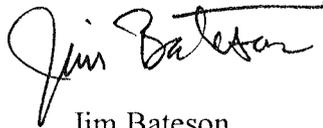
Mr. Bobby Johnson
Lee Co. Landfill #53-01
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Before replacing MW-12, Lee County needs to submit detailed location and construction specifications for the replacement well. After reviewing the submittal, the Section will issue a well authorization letter to the County. This letter will need to be made available to the contractor who will install the well.

The Section can issue a final closure letter for the facility after the new well is installed, and installation records are received by the Section.

If you have any questions about this letter, please call me at the Solid Waste Section, (919) 733-0692, ext. 342.

Sincerely,

A handwritten signature in cursive script that reads "Jim Bateson". The signature is written in black ink and is positioned above the printed name.

Jim Bateson
Hydrogeologist
Solid Waste Section

cc: Jim Barber; Solid Waste Section
Bobby Lutfy; "