9601-CDLF-1997

RCO 2441

OPERATION/CONSTRUCTION MANAGERS

CIVIL/SANITARY ENGINEERS

Municipal Services

Engineering Company, P.A.

May 28, 2007

Mrs. Jaclynne Drummond
Solid Waste Section - Compliance
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Received MAY 2007 Waste Management

Re: Assessment of Potentially Impacted Soil and Groundwater
Wayne County C&D Landfill on top of Closed MSW
Permit No. 96-01

Mrs. Drummond:

In response to the Compliance Order issued by Paul Crissman, of NCDENR, dated May 15, 2007 and based on our May 22, 2007 meeting, Municipal Engineering Services Co., P.A. (MESCO) has prepared a plan for assessment of potentially impacted soil and groundwater.

Assessment will include field screening soil samples with a Photo-Ionization Detector (PID), collecting a minimum of three soil samples, two groundwater samples, and two surface water samples for laboratory analysis.

A summary of report will be completed upon the outcome of sampling results and any actions taken. If you have any questions, please feel free to contact me at (919) 772-5393.

Sincerely,

MUNICIPAL ENGINEERING SERVICES CO., P.A.

Ethan J. Caldwell, PG

Enclosures

cc: Tim Rogers, Wayne County
Wayne Sullivan, MESCO

PO Box 97, Garner, North Carolina 27529 (919) 772-5393
PO Box 828, Morehead City, NC 28557 (252) 726-9481 PO Box 349, Boone, North Carolina 28607 (828) 262-1767

OVERVIEW OF PROPOSED PROJECT APPROACH

BACKGROUND AND OBJECTIVE

On January 10, 2007 as part of a comprehensive field audit performed by the North Carolina Department of Environment and Natural Resources (NCDENR), a "steady stream of leachate" and surface water was observed to have broken through a diversion berm allowing for the mix to flow in the vicinity of MW-7 and the wetland area. The break out of the diversion berm was the result of heavy rain.

Semi annual groundwater sampling was performed on February 6, 2007. Organics were not detected in MW-7. Inorganics detected in MW-7 were determined not to be statistically significant.

Distressed grass was observed in a low area 75 feet due east of MW-7, adjacent to the berm break during a site visit by Ethan J. Caldwell, PG (MESCO) on April 10, 2007.

The following tasks are designed to address the identified concerns:

- **Task 1 – Identify Potential Impacted Soil**
- **Task 2 – Identify Potentially Impacted Groundwater – Surface Water**
- **Task 3 – Excavate Impacted Soil (if necessary)**
- **Task 4 – Remediate Impacted Groundwater (if necessary)**
- **Task 5 – Summary Report**

SCOPE OF WORK

Task 1 – Identify Potential Impacted Soil

An initial background hand auger boring soil sample will be collected to establish baseline PID readings. The background soil sample will be collected from an upgradient location. The upgradient location will be determined in the field. A soil sample will be collected for laboratory analysis from this background location.

Identifying impacted soils will consist of hand auger borings in the observed distressed grass area. Soil samples will be field screened with a Photo-Ionization Detector (PID). Multiple borings will be investigated. The total number of borings will be determined in the field, dependent upon the size of the observed distressed area and upon encountered groundwater elevation. A soil sample for laboratory analysis will be collected from the boring with the highest elevated PID reading. In the event that elevated PID readings are not observed, one soil sample will be collected for laboratory analysis in the middle of the distressed grass area at an elevation of just above groundwater.

Field screening of soil samples will then be assessed with hand auger borings every 10 feet between the distressed grass area and MW-7. If elevated PID readings are encountered, the soil sample with the highest PID reading will be collected for laboratory analysis. In the event that elevated PID readings are not observed, one soil sample will be collected adjacent to MW-7.

Hand auger borings will be continued into the wetland area, every 25 feet, in the direction which the water would have traveled. Borings will extend to the point at which elevated PID readings are no longer observed. A soil sample from the boring with the highest elevated PID reading will be collected for laboratory analysis. If elevated PID readings are not observed, no soil sample will be collected for laboratory analysis.

The extent of soil impact will be identified with elevated PID readings by hand auger borings every 10 feet from the observed elevated PID readings until elevated PID readings are no longer encountered.

Soil samples collected for laboratory analysis will be analyzed for the following parameters:

- EPA Method 8260 Appendix I Organics
- EPA 6010 Appendix I Metals

The above analytical methods assume that the water mixture has the potential of containing similar constituents as identified in leachate samples.

Decontamination of field equipment between each boring will be performed according to the procedure as prescribed in the EPA RCRA Ground-Water Monitoring Draft Technical Guidance.

Task 2 – Identify Potentially Impacted Groundwater-Surface Water

Groundwater samples will be collected from monitoring wells MW-2 and MW-7. Surface water samples will be collected from SW-1 and SW-2. Sampling of groundwater and surface water will be performed in accordance to the procedures outlined in the Sampling and Analysis Plan.

Water samples collected for laboratory analysis will be analyzed for the following parameters:

- EPA Method 8260 Appendix I Organics
- EPA 6010 Appendix I Metals

Task 3 – Excavate Impated Soil (if necessary)

In the event that impacted soil is identified, based on laboratory results, soil excavation will be performed to the extent of impact, as identified with elevated PID readings. Excavation will be continued to the point on which groundwater is encountered or PID readings are below background levels. Confirmation soil samples will be collected from the excavation and submitted for laboratory analysis as prescribed above.

Task 4 – Remediate Impacted Groundwater (if necessary)

If impacted groundwater is detected, groundwater will be remediated as prescribed in the pending Assessment of Corrective Measures, to be completed by MESCO by September 1, 2007.

Task 5 – Summary Report

A summary report will be completed upon the outcome of sampling results and actions taken.