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March 31, 2016

Sent Via Email - mbivins@lincolncounty.org

Mr. Mark Bivins
Lincoln County Solid Waste
5291 Crouse Road
Crouse, NC 28033

Re: *Alternate Source Demonstration*
Lincoln County C&D Landfill
Lincoln County
Solid Waste Permit Number 55-03
DIN 25847

Dear Mr. Bivins:

The Solid Waste Section has completed a review of the *Alternate Source Demonstration* dated March 11, 2016 (DIN 25846) and submitted on behalf of Lincoln County by S&ME, Inc. for the active Lincoln County C&D Landfill, Solid Waste Permit Number 55-03. The *Alternate Source Demonstration* was submitted in response to consistent PCE exceedances within groundwater monitoring well MW-28 and in accordance with 15A NCAC 13B .0545. This groundwater monitoring well is located in a buffer area between the C&D Landfill and the unlined closed .0500 MSW Landfill known as Area E. Detection Monitoring is currently being conducted at the C&D Landfill.

Based upon *Alternate Source Demonstration*, groundwater flow directions indicate that the buffer area and the C&D Landfill receive a partial amount of flow from beneath Area E, and groundwater monitoring well MW-28 is located hydraulically upgradient from the C&D Landfill. In addition, PCE has been historically detected downgradient and side gradient of Area E, and PCE was detected in each of the groundwater monitoring wells during this study within the buffer area. Finally, volatile organic compounds typically detected within the Area E groundwater monitoring wells were also detected in the buffer area groundwater monitoring wells. Therefore Lincoln County concludes that the PCE concentrations present in groundwater monitoring well MW-28 are associated with the migration of contaminants from the unlined closed .0500 MSW Landfill known as Area E and not from the C&D Landfill.

As a result, the *Alternate Source Demonstration* is approved as described. The C&D Landfill may remain in the Detection Monitoring program in accordance with 15A NCAC 13B .0545. However, based upon the study, action will be required at the unlined closed .0500 MSW Landfill.

Volatile organic compounds have been consistently and historically detected in concentrations exceeding the regulatory groundwater standards within groundwater monitoring wells that are located beyond the unlined closed .0500 MSW Landfill's compliance boundary. The groundwater exceedances are also a violation of the following: 15A NCAC 02L .0103, 15A NCAC 02L .0106, 15A NCAC 02L .0107, 15A NCAC 02L .0108, 15A NCAC 02L .0202, 15A NCAC 13B .0503(2), 15A NCAC 13B .0601, NCGS 143-214.1, and the December 21, 1995 Closure Letter.

