



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

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

August 31, 2009

VIA ELECTRONIC MAIL

Thomas Lammons
Bunnell-Lammons Engineering
6004 Ponderosa Court
Greenville, South Carolina 28615

Re: McDowell County Target Shooting Range Lead Contamination Remediation
Work Plan (ISSP)

Dear Mr. Lammons:

I have reviewed the Work Plan for Lead Remediation for the McDowell County firing range site. I have the following comments that may be addressed either by mail or electronically:

1. In my comments to the previous plan I pointed out that there was no field verification for lead concentration for readings taken with the XRF instrument. Without laboratory testing calibration, the XRF cannot be used to determine actual lead concentrations in the soil. You propose using the XRF for field screening to determine if the HWS SSL has been reached during the excavation process which will not be accurate without laboratory testing calibration.
2. Two composite samples are not adequate for determining the adequacy of the soil treatment. The minimum number of samples is one sample per EACH 20 yards of excavated/ treated soil.
3. At least one sample per each 100 cubic yards must be analyzed using the MEP extraction method (EPA method 1320). These samples must be collected in a manner that is representative of the total quantity of soil being assessed.
4. The soil must be treated as it is generated, (excavated) it may not be stockpiled first, and then treated.
5. The temporary piles of treated soil may not be in place any longer than 14 days from the date of excavation.

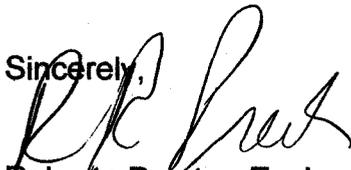
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6. To be used on-site the soil must have total lead levels of less than 270 mg/kg AND MEP –lead levels of less than 1 mg/kg. Soil in excess of these levels must be managed off site at a Municipal lined landfill (Subtitle D).
7. Post excavation samples must be collected at a minimum of 20 foot increments in each direction (grid patter) and analyzed for total lead concentration.
8. You have not indicated what the fate of the 'shooting wall" bank is. Unless this bank is somehow stabilized I will not be able to issue a no further action level as this impacted soil can erode over time causing lead contamination.

If you have any questions concerning this matter, please contact me at the number listed below.

Sincerely,



Roberta Proctor, Environmental Chemist
Hazardous Waste Section

Cc: Brent Burch
Spring Allen
✓ Central Files