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July 21, 2006

Mr. David Cobrain  
State of New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East  
Building One  
Santa Fe, New Mexico 87505-6303



Reference: Work Assignment No. 06110.270; State of New Mexico Environment Department, Santa Fe, New Mexico; Support for the LANL Order of Consent; Review of Risk Assessment of the Investigation report for the TA-16-340 Complex, Consolidated Units 13-003(a)-99 and 16-003(n)-99 and Solid Waste Management Units 16-003(o), 16-026(j2), and 16-029(f), Los Alamos National Laboratory, New Mexico, Task 3 Deliverable.

Dear Mr. Cobrain:

This letter serves as a deliverable for the above-referenced work assignment, and addresses the review of the risk assessment associated with the "Investigation report for the TA-16-340 Complex, Consolidated Units 13-003(a)-99 and 16-003(n)-99 and Solid Waste Management Units 16-003(o), 16-026(j2), and 16-029(f)" (the Report), Los Alamos National Laboratory (LANL), New Mexico, dated January 2006.

There were few technical comments related to the human health and ecological risk screening component for the Report. LANL applied the consolidated unit approach at this site. However, it appears that only co-located units with similar history were grouped together as a consolidated unit. The approach taken resulted in small units that could be realistically assumed to represent an exposure area. Therefore, for this site, the use of consolidated units does not appear inappropriate.

The risk assessments (human health and ecological) were screening assessments conducted to assess residual levels of contamination post remediation. With the exception of Solid Waste Management Unit (SWMU) 16-003(o), all of the units met industrial levels. Residual contamination remains at levels above both industrial screening levels and ecological screening levels at SWMU 16-003(o). As noted in the Report, additional investigation and removal activities are proposed for this SWMU. Upon completion of additional activities, both the human health and ecological risk screen should be conducted. The Report clearly indicates that the ecological risk assessment will be revised, but the Report does not specifically state this concerning the human health risk.



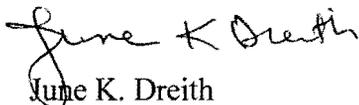
There was some concern that Appendix H-2.2 of the Report indicated that a complete exposure route for contaminants in subsurface soil would only exist if subsurface soil were to be excavated. Several volatile organic compounds (VOCs) were detected in subsurface soil, and as such, the vapor intrusion pathway would be a complete pathway (inhalation of vapors migrating from subsurface soil and into indoor air). However, given that concentrations of VOCs did not exceed risk screening values, additional analysis of this pathway is not required, and a deficiency comment was not drafted.

During a check of background values used for the inorganics and radionuclides, it was noted that several LANL background values were available although not applied in the Report. Upon additional review of these data, the LANL background report indicated that the levels detected in background were based on "nominal minimal activity." Therefore, it was deemed a conservative assumption to exclude background levels for radionuclides that were not based on "solid" detectable activity. This is a conservative assumption, and no comment was drafted concerning this issue.

The conclusions drawn by the ecological risk screening relied significantly upon the use of background and receptor species area use factors. The use of the background comparison is supported and suitably addresses a number of the constituents of potential ecological concern (COPEC) concerns. The application of area use factors however, is an uncertain tool with tenuous results. It is recommended that the spatial distribution of COPEC occurrence within and outside of viable habitat (i.e. the Tuff) be used as a line of evidence for the revised risk assessment. The results of the retained COPECs should be depicted within the Habitat Map (Figure H-1) in order to provide a context on the exposure, and potential risk setting.

This draft deliverable was emailed to you on July 20, 2006 at David.Cobrain@state.nm.us to Ms. Darlene Goering at Darlene.Goering@state.nm.us. A formalized hard (paper) copy of this letter deliverable will be sent via mail. If you have any questions, please call me at (303) 763-7188 or Ms. Paige Walton at (801) 451-2978.

Sincerely,



June K. Dreith  
Program Manager

Enclosure

cc: Darlene Goering, NMED  
Ms. Paige Walton, TechLaw  
Dallas/TechLaw Files