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Mr. David Cobrain
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Dr. East
Building One
Santa Fe, NM 87505

RE: Draft Technical Review Comments on the *Risk Assessment for the Closure of the Technical Area 54, Area L Storage Shafts 36 and 37*, Los Alamos National Laboratory, April 2012.

Dear Mr. Cobrain:

This letter serves as a deliverable and addresses the draft technical review on the “Risk Assessment for the Closure of the Technical Area 54, Area L Storage Shafts 36 and 37”, Los Alamos National Laboratory (LANL), dated April 2012. As noted in an email dated May 2, 2012, Ms. Neelam Dhawan requested a review of the risk assessment, and whether the site would meet the requirements of clean closure.

Based upon a review of this document and the Closure Certification Report, Storage Shafts 36 and 37 would likely meet the requirements of clean closure. This conclusion is based solely on the sampled concentrations of lead on the steel and concrete surfaces of the storage shafts. LANL has determined that a release has not occurred to surrounding soil and that no precipitation has entered the shafts based on visual inspection of the storage shafts.

LANL determines that conditions at Storage Shafts 36 and 37 meet the requirements for clean closure based on surface wipe sampling results and modeling exercises conducted for lead via the use of the State of California’s Department of Toxic Substances Control (DTSC) (2011) Leadsread8 and United States Environmental Protection Agency’s (USEPA’s) adult lead model (ALM). Surface wipe sample results are by nature difficult to interpret as they indicate the mass of contaminant per area, and do not directly indicate a level of exposure by potential receptors. The use of surface wipe sample results in these models poses a large amount of uncertainty since: 1) surface wipe sample results are representative of the mass of lead on a 100cm² surface; 2) surface wipe sample results are not exposure point concentrations; and 3) Leadsread8 and ALM require an input soil exposure point concentration based on the amount of contaminant per amount of soil (i.e., µg/g).



In order to reduce uncertainty, surface wipe sample results could also be compared with screening levels developed especially for surface contamination. USEPA has published screening levels for the Office of Housing and Urban Development (HUD) for lead on surfaces in residential dwellings and recommends that levels of lead should be no greater than 4.31 $\mu\text{g}/100\text{cm}^2$ on floors, 26.9 $\mu\text{g}/100\text{cm}^2$ on interior window sills, and 43.1 $\mu\text{g}/100\text{cm}^2$ in window troughs. The maximum detected result at the storage shafts of 18.2 $\mu\text{g}/100\text{cm}^2$ exceeds the screening level of 4.31 $\mu\text{g}/100\text{cm}^2$ for floors, but is below the screening levels of 26.9 $\mu\text{g}/100\text{cm}^2$ for interior window sills and 43.1 $\mu\text{g}/100\text{cm}^2$ for window troughs. Since the surface wipe sample results taken from the surfaces of the shafts are below two of these screening levels, and considering the results of the blood-lead modeling, it appears that the shafts would likely meet the requirements of clean closure.

If you or any of your staff have questions, please contact me at (801) 451-2864 or via email at paigewalton@msn.com.

Thank you,



Paige Walton

AQS Senior Scientist and Program Manager

cc: Neelam Dhawan, NMED (electronic)
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