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JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 28, 2009

David Gregory
Federal Project Director
Los Alamos Site Office
Department of Energy
3747 West Jemez Road, MS A316
Los Alamos, NM 87544

David McInroy
Environmental Operations Project Director
Los Alamos National Security, LLC
P.O. Box 1663, MS M992
Los Alamos, NM 87545

**RE: NOTICE OF DISAPPROVAL
PHASE II INVESTIGATION/REMEDIATION WORK PLAN
FOR MATERIAL DISPOSAL AREA A,
SOLID WASTE MANAGEMENT UNIT 21-014, AT TECHNICAL AREA 21,
LOS ALAMOS NATIONAL LABORATORY (LANL),
EPA ID #NM0890010515
HWB-LANL-09-028**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security, L.L.C.'s (LANS) (collectively, the Permittees) *Phase II Investigation/Remediation Work Plan for Material Disposal Area A, Solid Waste Management Unit 21-014, at Technical Area 21* (Work Plan), dated June 15, 2009 and referenced by LAUR-09-3717/EP2009-0188. NMED has reviewed the Work Plan and hereby issues this Notice of Disapproval (NOD).

Comments

1. The Permittees must excavate and remove all waste from Material Disposal Area (MDA) A and the Plutonium Tanks and remediate the site to residential cleanup levels (*see* NMED's "Technical Background Document for Developing Soil Screening Levels"). Remediation to residential cleanup levels will allow for future development of the DP Road corridor with no land use restrictions. The Permittees



must revise the Work Plan and state that residential cleanup levels rather than industrial cleanup levels will be utilized.

2. The Permittees state in several sections (e.g., Section 4.1.5, Section 5.2.1, Section 5.3.3, Section 5.3.7), using similar language, that, “[e]astern trenches and central pit contents will be handled as waste and processed for disposal. Overburden material will be removed from above the pits and trenches and staged in piles or containers in an environmentally protective manner. The material will be stockpiled within the boundary of the area of contamination until analytical results are received and reviewed. If the analytical results indicate hazardous waste and/or that contaminants exceed industrial cleanup levels, the material will be managed as waste. If results indicate that hazardous waste and cleanup goals are met, the material will be stockpiled for use as site restoration and grading fill. The placement of the material as backfill will be controlled so that analytical data may be linked to specific areas of the site.” Any excavated material that is re-used onsite as fill or cover material must meet residential soil screening levels (SSLs) and ecological screening action levels (SALs). The Permittees must revise the Work Plan to state that excavated material must meet residential SSLs and SALs or it will not be used as fill and/or cover material on the site.
3. The Work Plan outlines a presumptive remedy for MDA A and replaces the corrective measures evaluation (CME). In order to ensure that all of the information for the evaluation of the presumptive remedy is presented, without requiring the evaluation of other remedial alternatives, NMED requires that the Permittees revise the Work Plan to provide the following information:
 - a.) an alternate plan in the event that residential cleanup levels cannot be achieved. The Permittees must revise the Work Plan to describe alternatives to the proposed plan. The Permittees may follow the format of the alternative plan in the MDA B Work Plan.
 - b.) costs associated with the proposed activities. The Permittees must revise the Work Plan to include cost estimates related to all corrective actions proposed for MDA A. The cost estimates may be presented in a similar manner to cost estimates provided for MDA B.
4. The excavation activities and waste stream at MDA A will likely be similar to that of MDA B, where an enclosure is being used to protect the activities from weather and prevent releases to the atmosphere. The Permittees must revise the Work Plan to include the use of an enclosure during excavation activities at MDA A.
5. Confirmation sampling is integral to the success of the corrective action at MDA A; however, the sections of the Work Plan describing confirmation sampling lack sufficient detail for NMED to determine if the proposed confirmation sampling is adequate. In Section 4.1.8, Confirmation Sampling, the Permittees state, “[s]amples will be collected to confirm that waste material that exceeds industrial risk standards have been removed. Samples of geologic material will be collected from beneath the excavation floor (Fig 4.1-1), including the entire [solid waste management unit]

SWMU area. In addition, confirmation sampling results will be used in conjunction with the MDA IR data to help define the horizontal and vertical extent of potential contamination in the media. The results will be evaluated to determine if additional excavation is necessary.” It is not clear what the Permittees mean by collecting samples of geologic material from “the entire SWMU.” NMED assumes the entire SWMU to be the 1.25 acres of MDA A. Do the Permittees propose that confirmation samples will be obtained at the excavation depth as well as throughout the SWMU? The Permittees must define the meaning of “the entire SWMU” and clarify the confirmation sampling plan.

Additionally, the Work Plan states, “[t]he site will be recontoured to allow surface drainage to DP Canyon, balance cuts and fills, and provide stable slopes;” however, Figure 4.1-1 which presents the bounding limits of the confirmation sampling appears to depict a final grade with a depression. The alignment of the drawing is not clear. The Permittees must revise Figure 4.1-1 to better depict the final grade of the site. The Permittees must provide figures that show the proposed approximate sample locations. Confirmation sampling is further discussed in Section 5.2.4, Confirmation Sampling Methods for Soil and Tuff, where the Permittees state that “[a]t each location, a minimum of two samples will be collected at depths corresponding approximately 0-0.5 ft and 1.5-2.0 ft below the excavation bottom. The deeper samples should be collected at a depth with little or no evidence of contamination, based on visual observation and field-screening methods.” The Permittees must revise the Work Plan and describe the data collection strategy (sampling frequency, locations, and sample analysis) in more detail. Samples must be taken from areas that have visible staining, visible fractures, elevated moisture, contaminated zones identified by field screening, and areas with residual contamination. The Permittees must revise the text to describe the confirmation sampling in greater detail. See Comment 1 regarding the required cleanup levels.

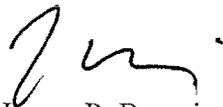
6. NMED believes that DPT will not help the Permittees to accomplish the objectives described in the sampling and analysis plan (SAP) in Appendix B. Most likely, the DPT will encounter refusal because it will be difficult for 2-inch plastic lined steel tubes to be driven through solid items likely to be found in the pits at MDA A. NMED does not believe that drilling through the middle of a landfill is either a more effective or a safer field practice than using a backhoe to systematically expose soil and waste material. The backhoe method is a standard industry practice and is both more practical and effective because it enables observation of a cross-section of the entire trench contents and is already proposed to be used for test pits in the central pit. However, if DPT proves successful at MDA B, NMED may reconsider.
7. In Section B-2.1.2 (Waste Sampling), the Permittees state that the direct push sampling locations are shown on Figures B-2.1-1 and B-2.1-2. These figures were not included as a hard copy in the Work Plan. The Permittees must submit two paper copies and one electronic copy in accordance with Section XI.A of the Order.
8. NMED cannot approve the schedule as it is presented in the Work Plan. The Order requires that the Remedy Completion Report (i.e., the Phase II Investigation/Remediation Report) be submitted no later than March 11, 2011. The

schedule in the Work Plan, however, states that waste characterization and removal for the central and eastern pits will be completed by March 20, 2013 and the waste characterization and removal of the Plutonium Tanks will be completed by August 21, 2014 with a Phase II Investigation Report submitted to NMED by December 18, 2014. The Permittees must revise the schedule in the Work Plan or otherwise resolve the discrepancy regarding the completion dates.

The Permittees must address all comments and submit a revised Work Plan to NMED no later than August 31, 2009. All submittals (including maps) must be in the form of two paper copies and one electronic copy in accordance with Section XI.A of the Order.

Please contact Kristen Van Horn of my staff at (505) 476-6046 should you have any questions.

Sincerely,



James P. Bearzi
Chief

Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
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File: LANL, 2009 TA-21 MDA A (SWMU 21-014)