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**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

July 19, 2005

David Gregory, Federal Project Director  
Los Alamos Site Office  
Department of Energy  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, NM 87544

G. Pete Nanos, Director  
Los Alamos National Laboratory  
P.O. Box 1663, Mail Stop A100  
Los Alamos, NM 87545

**RE: NOTICE OF DISAPPROVAL FOR THE CORRECTIVE ACTION WORKPLAN  
FOR SOLID WASTE MANAGEMENT UNIT (SWMU) 73-002 (INCINERATOR  
ASH REMOVAL) LOS ALAMOS NATIONAL LABORATORY (LANL),  
EPA ID #NM0890010515  
HWB-LANL-05-005**

Dear Messrs. Gregory and Nanos:

The New Mexico Environment Department (NMED) has received and reviewed the United States Department of Energy and the Regents of the University of California's (collectively, the Permittees) *Corrective Action Workplan for Solid Waste Management Unit (SWMU) 73-002 (Incinerator Ash Removal)*, dated May 2005 and referenced by Innovative Technical Solutions, Inc. (ITSI) Project No: 04-400.12. NMED hereby issues this Notice of Disapproval (NOD) of the aforementioned work plan. The Permittees must address all comments and submit revised text and/or replacement pages (where appropriate) within thirty (30) days of receipt of this letter. As part of the response letter that accompanies the revised text or replacement pages, the Permittees shall include a table that details where all revisions have been made to the work plan and cross-references NMED's numbered comments. All submittals must be in the form of two paper copies and one electronic copy in accordance with section XIA of the March 1, 2005 Consent Order (Order). NMED also requests that an electronic version of the Response be included along with the electronic version of the revised work plan. Additionally, based on



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Figure 6, Project Schedule, provided in this work plan, the due date for the Investigation Report will be January 31, 2006.

**General Comments:**

1) As a reminder, all documents submitted to NMED must be in the format required under Section XI of the Order. Any submittals that do not comply with the format requirements, will not be approved. In the future, the Permittees must submit any variations of the general document (work plan, report, other) format in outline form to NMED for approval prior to submittal in accordance with Section XI.A of the Order.

2) The Permittees must provide a brief description of investigation, sampling or analytical methods and procedures, as part of this work plan. The description must include sufficient detail to evaluate the quality of the acquired data in accordance with Section IX.A, *Standard Operating Procedures*, of the Order. The Permittees may not substitute references to the Facility's SOPs for this requirement. (Submit to NMED within 30 days of receipt of this letter.)

3) In accordance with Section XI.B.13, *Appendices*, of the Order, the Permittees must provide the results of historical investigations in a separate document to be submitted with the investigation work plan. The Permittees must submit the Historical Investigation Report (HIR) with the response to this NOD. (Submit to NMED within 30 days of receipt of this letter.)

4) The Permittees have not provided a HIR or the waste characterization sampling results for NMED review. Therefore, the Permittees must complete full suite analyses for each sample obtained at this site. This suite must include VOCs, SVOCs, explosive compounds, pH, PCBs, dioxins, furans, nitrates, perchlorate, TAL metals, cyanide, and radionuclides. (Submit revised text and/or pages to NMED within 30 days of receipt of this letter.)

**Specific Comments:**

**1) Section 3.2 Subsurface Conditions, page 9:**

**Permittees' Statement:** "Below the ash pile there is evidence of native soil and rock. No further investigation has been done of this area."

**NMED Comment:** The information provided by the Permittees in this section is insufficient. The Permittees must provide the information required under Section XI.B.6.b of the Order. This information must include: a brief, detailed description of the site conditions observed during previous subsurface investigations, including relevant soil horizons; stratigraphy; presence of groundwater; and other relevant information. A site plan showing the locations of all borings and excavations advanced during previous investigations shall be included in the Figures section of the work plan. A brief description of the anticipated stratigraphic units that may be encountered

during the investigation may be included in this subsection if no previous investigations have been conducted at this site. (Submit to NMED within 30 days of receipt of this letter.)

**2) Section 4.5 Permits, Notifications, and Utility Clearance, page 12, paragraph 1:**

**Permittees' Statement:** "ITSI will make formal notifications before field activities are initiated to DOE, USACE, Los Alamos County, and Airport Operations personnel."

**NMED Comment:** In accordance with Section III.L of the Order, the Permittees are required to inform NMED prior to commencement of field activities (i.e. Sampling Notification).

**3) Section 4.11.1 Ash Removal with Vacuum Truck – Keers Remediation, page 16:**

**Permittees' Statement:** "All associated debris such as plant material, trash, cans, and miscellaneous municipal debris, will be hand picked and or segregated, bagged and disposed of as municipal waste. This may include brushing off ash from the debris to accomplish the goal of sending most of the debris to a local landfill."

**NMED Comment:** NMED does not believe that the Permittees will be able to reasonably demonstrate that all contamination has been successfully removed from debris encountered at this site nor have the Permittees proposed a method to demonstrate this. The Permittees have also failed to submit the results of waste characterization activities conducted in April of 2005. Additionally, the Permittees have not submitted a plan for NMED review that explains how the Permittees will conduct 40 CFR 262.11 activities for waste generated at this site. This information is crucial in determining proper waste disposal, and without it, NMED cannot assess the Permittees' plan for waste disposal.

**4) Section 5.1 Ash Waste Characterization Sampling, page 20, paragraph 2:**

**Permittees' Statement:** "The following tables summarize the radionuclide and metals results. The results and an evaluation of the results for purposes of disposal characterization are presented in a technical memorandum currently being prepared."

**NMED Comment:** See specific comment #3 above.

**5) Section 5.3 Confirmation Soil Samples, page 24:**

**Permittees' Statement:** "Judgmental sampling will be performed along drainlines and outside the perimeter of the remediated area. Furthermore, samples will be taken to establish a background value comparison for the confirmation samples."

**NMED Comment:** The "Inorganic and Radionuclide Background Data for Soils, Sediments, and Bandelier Tuff at Los Alamos National Laboratory" (LANL 1998, 59730), provides the background values for comparison for the confirmation samples. The Permittees must use these established values for background comparison and not site-specific samples for background comparisons. NMED will not accept site-specific BVs.

**6) Section 6.2 Corrective Action Report, page 25:**

**Permittees' Statement:** "The Corrective Action Report will be submitted to USACE/DOE within 90 calendar days after project completion or ITSI demobilization, whichever comes first, if the option is exercised."

**NMED Comment:** Based on Figure 6, Project Schedule, provided in this Work Plan, the Investigation Report must be submitted to NMED no later than January 31, 2006. Also, the Investigation Report must follow the format and include all information required in Section XI.C of the Order.

**7) Appendix A: Sampling & Analyses Plan, pages 1-14:**

**A) Section 1.1 Background, page 2, paragraph 2:**

**Permittees' Statement:** "The results and an evaluation of the results for purposes of disposal characterization are presented in a technical memorandum currently being prepared."

**NMED Comment:** See specific comment #4. (Submit to NMED within 30 days of receipt of this letter.)

**B) Section 2.0 Field Sampling Plan, page 3:**

**Bullet 2**

**Permittees' Statement:** "Choose a random location within 30 feet of one of the edges of the footprint. Establish the sampling grid to cover the footprint in a 30-foot by 30-foot grid, with the grid extending a minimum of one grid unit outside the footprint of the ash along the slope and down the slope from the former footprint of the ash."

**NMED Comment:** NMED concurs with the 30-foot by 30-foot sampling grid proposed by the Permittees. However, the Permittees also state that "where inadequate soil exists, the sample location will be moved in the down slope direction, staying within the grid, until sufficient soil is present to sample." Soil is not the only medium in which a release may have occurred. If there is insufficient soil to obtain a sample, the Permittees must

sample the medium (tuff) present in that location to determine if contamination is still present at the site.

Also, the Permittees must sample the drainages associated with the ash pile. Samples within the drainages must be obtained from the top of the slope to the toe of the colluvium. Sampling must target areas such as fine-grained sediment in outfall channels or areas of sediment accumulation.

Additionally, NMED understands that it is not the Permittees' intent to determine extent of contamination as part of this work plan. However, it is a requirement of Section IX, *Investigation and Sampling Methods and Procedures*, of the Order that the Permittees define nature and extent of contamination. NMED recommends that the Permittees obtain one surface soil sample, one sample from the soil/tuff interface, and one at least 2-feet into the tuff from each grid unit. Completing this additional sampling now may eliminate the need for a second phase of sampling in the future.

**C) Section 2.2 Collecting the Soil Samples, page 4, paragraph 2:**

**Permittees' Statement:** "Samples will be collected in a manner primarily with Los Alamos National Laboratory's (LANL) Standard Operating Procedures (SOPs), and ITSI's Chemical Data Quality Management Plan (CDQMP) (reviewed and approved by USACE Sacramento District for use under the PRAC)."

**NMED Comment:** See general comment #2.

**D) Section 2.3 Field Screening of Samples, page 4, paragraph 1:**

**Permittees' Statement:** "Samples will be field screened for lead (Pb) and selected other metals using field portable x-ray fluorescence (XRF). Based on a review of available laboratory results from previous sampling efforts, the ash contains measurable concentrations of Pb, other metals and radiological isotopes. Tentative screening criteria have been developed (Table 7) that should allow for screening of the soils prior to collecting formal confirmation samples."

**NMED Comment:** The Permittees have not provided a HIR or the waste characterization sampling results for NMED review. Therefore, NMED has no basis on which to determine appropriate field screening methods. The Permittees must complete field screening of samples in accordance with Section IX.B.2.d of the Order. The Permittees must revise the text to reflect these changes.

A work plan is designed to outline the methods and procedures that will be applied during field work. If field conditions warrant a deviation from the work plan, it must be noted in

the Investigation Report. Therefore, the Permittees must explain why the screening criteria are "tentative". (Submit response and revised text and/or pages to NMED within 30 days of receipt of this letter.)

**E) Section 2.4 Analytical Criteria, page 5:**

**NMED Comment:** See general comment #4. In addition, the *LANL 2005, SWMU 73-002 Fact Sheet* (LANL 2005, 88700) that the Permittees reference throughout this work plan states that SVOCs and VOCs were detected as well as the pesticides 4,4'-DDE, 4,4'-DDT, and alpha chlordane. For this reason, pesticides must also be included in the analytical suite. (Submit revised text and/or pages to NMED within 30 days of receipt of this letter.)

Also, in accordance with Section IX.C of the Order, the Permittees must submit an electronic copy (preferably Excel format) of all analytical data (non-detects, estimated blanks, and detects) with qualifiers attached from the analytical laboratory with the Investigation Report. The summary tables shall include only detects of the data based on the corresponding qualifiers. The Permittees shall not censor the data based on detection limits, quantitation limits, or measurement uncertainty.

**F) Section 3.4 Reporting Limits, page 11:**

**Permittees' Statement:** "Project-required reporting limits (RLs) are provided in Table 1. Where appropriate, the practical quantitation limit (PQL) will be a minimum of 2 to 5 times lower than the RL, and the minimum detectable activity (MDA) should be a minimum of 2 times lower than the RL."

**NMED Comment:** NMED interprets this statement to mean that the practical quantitation limit (PQL) and the minimum detectable activity (MDA) will be lower than the Reporting Limits (RL), and therefore, more stringent than the required reporting limits. However, the Permittees must clarify this statement. (Submit as a response to NMED within 30 days of receipt of this letter.)

**G) Section 4.2 Electronic Data Deliverables, page 12:**

**Permittees' Statement:** "Use of electronic data deliverables (EDDs) and electronic data validation promotes objectivity, substantially reduce costs, and facilitate data exchange. EDDs will be provided in a format consistent with LANL requirements."

**NMED Comment:** Electronic versions of data must be submitted in the format and include all information consistent with those required in Section IX.C of the Order. See

letter E above. (Submit revised text and/or pages to NMED within 30 days of receipt of this letter.)

**H) Section 4.3 Data Validation Reports, pages 12-13:**

**NMED Comment:** See letter E above.

**8) Tables 1 through 9:**

**NMED Comment:** This section of the work plan must include all tables listed in Section XI.B.11 of the Order. If a table is not applicable to this work plan, it must be stated and adequate justification must be provided to support its exclusion from the work plan. The Tables section must be revised to include all applicable tables and justifications for exclusion. (Submit revised text and/or pages to NMED within 30 days of receipt of this letter.)

**9) Appendix B Best Management Practices-Stormwater Management:**

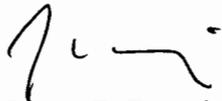
**NMED Comment:** This Appendix is not a requirement under Section XI.B of the Order. In the future, the Permittees must submit variations of the general document (work plan, report, other) format in outline form to NMED for approval prior to submittal in accordance with Section XI.A of the Order.

Messrs. Gregory and Na.  
July 19, 2005  
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NMED is concerned that this work plan does not comply with many of the basic requirements of the Order. The Permittees are advised that these requirements are mandatory, and failure to comply with them may result in an enforcement action.

Please contact Kathryn Chamberlain at (505) 428-2546 should you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

JPB: kc

cc: D. Goering, NMED HWB  
K. Chamberlain, NMED HWB  
J. Volkerding, NMED DOE OB  
S. Yanicak, NMED DOE OB, MS J993  
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file: Reading and LANL '05 (SWMU; 73-002).