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# **Official Correspondence Form**

Name:	U1100730
Title:	Direction to Modify Investigation Report Potrillo and Fence Canyons LANL EPA ID NM0890010515 HWB-LANL-10-101
Date Received:	4/15/2011
Addressee Name:	M. Graham, ADEP
Originator:	J. Bearzi, NMED
Action Item Description:	
Action Due Date:	2/15/2012
Responsible for Action:	Search Graham, Michael J
Responsible Office:	ADEP
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# NEW MEXICO ENVIRONMENT DEPARTMENT

## Hazardous Waste Bureau

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### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 14, 2011

George J. Rael, Assistant Manager Environmental Projects Office Department of Energy/National Nuclear Security Administration Los Alamos Site Office 3747 West Jemez Road, MS A316 Los Alamos, NM 87544 Michael J. Graham, Associate Director Environmental Programs Los Alamos National Security, LLC P.O. Box 1663, MS M991 Los Alamos, NM 87545

RE: DIRECTION TO MODIFY
INVESTIGATION REPORT
POTRILLO AND FENCE CANYONS
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-10-101

Dear Messrs. Rael and Graham:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security, LLC (LANS) (collectively, the Permittees) *Investigation Report for Potrillo and Fence Canyons, Revision I* (Report), dated March 2011 and referenced by LA-UR-11-1820/EP201-0113. NMED hereby issues this Direction to Modify. The following comment numbers correspond to the February 24, 2011 Notice of Disapproval (NOD) comments.

#### **General Comments:**

2. NMED agrees that previously-submitted reports on the canyons have depicted data on maps showing spatial trends of contaminants in relation to the Rio Grande. However,

without evaluation of data within individual reaches, NMED cannot determine whether or not there are any localized hot spots that may present an unacceptable risk. In future reports, maps depicting spatial distribution of organic, inorganic, and radionuclide contaminants of concern (COCs) must be included. Future reports must provide tables that include data for all samples collected in individual reaches, not just average or maximum results for each reach.

3. To facilitate the review in future reports, "Samples Taken and Analysis Requested" tables (e.g., Tables C-2.0-1 and C-2.0-2) must be included in the main body of the report with the other tables, not on a CD in appendices.

#### **Specific Comments:**

- 6. The response to this comment is partially adequate. The comment merely pointed out an inconsistency in the Permittees' treatment of non-detects and requested that a consistent approach be applied. However, the Permittees may wish to re-evaluate their policy, as the response contradicts their own guidance. For future assessments, the Permittees must ensure that all non-detects are handled in a consistent matter across a site.
- 7. The response to this comment is not adequate. The Permittees propose using a hazard level of 3.0 for assessing ecological risk. The Environmental Protection Agency (EPA) and NMED guidance require a hazard level of 1.0.

The basis for the proposal is a paper by Doursan and Stara (1983). A significant review of literature as well as other State and Federal programs for Resource Conservation and Recovery Act (RCRA) corrective action was conducted to assess the conclusions outlined in the Doursan and Stara paper. No supporting documentation could be found indicating that the paper had undergone any extensive peer-review or that the conclusions have been accepted by EPA or other agencies. No precedent could be found where other regulatory agencies have deviated from the target hazard level of 1.0 to indicate acceptable risk, nor was any precedent found where other regulatory agencies relied on the content of the Doursan and Stara paper.

NMED therefore does not accept the Doursan and Stara paper as justification for deviating from NMED, EPA, and Los Alamos National Laboratory's (LANL) guidance for ecological risk as discussed in the original NMED comment. If screening level hazards are above the target level of 1.0, a more refined assessment following NMED, EPA, and/or NMED-approved LANL guidance must be conducted.

It is also noted that the Permittees referenced past investigation reports (dated 2004 and 2005) where this approach was deemed acceptable. Risk assessment procedures are continually changing to incorporate new methodologies, data, and knowledge. Reports previously approved may also be based on outdated toxicity data. It is understood that risk assessment procedures may change over time and thus the review process may

change as well. Regardless of the previous approvals of other Canyons Investigations, ecological risk assessments must be revised for Potrillo and Fence Canyons.

- 9. See response to Specific Comment #7.
- 10. The response to this comment is not adequate. The comment indicated that references to other biota studies may not be used to justify elevated risks. Nevertheless, results from biota studies may provide an understanding of risk levels as discussed in an uncertainty assessment. The Permittees indicate in their response that biota studies are only warranted when there may be an adverse ecological risk, which does not address NMED's original comment. For future assessments, when the ecological screening assessment indicates elevated hazard (greater than 1.0), a more refined assessment following NMED, EPA, and/or NMED-approved LANL guidance must be conducted.

NMED agrees that results of investigations conducted at Potrillo and Fence Canyon Aggregate Area should be evaluated to determine if additional investigations of dioxins and furans are required in Potrillo and Fence Canyons. The Aggregate Area investigation report (IR) for Potrillo and Fence Canyon is due May 15, 2011. If the IR indicates the presence of dioxin and furans, then the Permittees must recommend additional investigations in the Potrillo and Fence Canyons to define the nature and extent. The work plan for these recommended additional investigations is due **February 15, 2012**. The Permittees may then include the revised ecological assessments in the investigation report submitted subsequent to the investigations. If dioxins and furans are not present, then a revised report for Potrillo and Fence Canyons that includes only the revised ecological risk assessments based on directions provided herein is due **February 15, 2012**.

Please contact Neelam Dhawan of my staff at (505) 476-6042 should you have any questions.

Sincerely,

James P. Bearzi

Chief

Hazardous Waste Bureau

cc:

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File: LANL, Potrillo and Fence Canyons IR, 2011, LANL 10-101

NAME Dereen Monteys 2# 086385 DATE 4-15-11

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