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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 22, 2008

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David McInroy
Remediation Services Deputy Project Director
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RE: APPROVAL WITH MODIFICATIONS
INVESTIGATION REPORT FOR PUEBLO CANYON AGGREGATE AREA, REVISION 1
LOS ALAMOS NATIONAL LABORATORY
EPA ID #NM0890010515
HWB-LANL-08-009

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) *Investigation Report for Pueblo Canyon Aggregate Area, Revision 1* (Report), dated July 2008 and referenced by LA-UR-08-4765/EP2008-0391. NMED hereby approves the Report with the following modifications:

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Specific Modifications:

1. **LANL Response to NOD, Specific Comment 1; Modification for SWMU 00-018(a) Pueblo Canyon Former Wastewater Treatment Plant (WWTP)**

In its June 27, 2008 Notice of Disapproval (NOD), NMED directed the Permittees to develop a work plan for additional site characterization activities at Solid Waste Management Unit (SWMU) 00-018(a). The Permittees' July 25, 2008 response to the NOD indicated the site had been sufficiently characterized in accordance with the May 2005 Pueblo Canyon Aggregate Area Investigation Work Plan (work plan) which was approved by NMED with modifications on September 23, 2005.

As the Permittees are aware, the work plan approval was based on site conditions present in September 2005 (i.e., the former WWTP structures still existed and remained connected to the main county sewer system while wastewater bypassed the plant structures and pipelines at that time). Future plans for demolition of the WWTP were uncertain and a number of sample locations and collection methods (such as angled borings) were proposed that would not adversely affect the integrity of various site structures such as the liners in the sludge drying beds.

The Permittees subsequently conducted the site investigation in general accordance with the work plan. The Permittees submitted the Report in March 2008. During a June 2008 site visit, NMED observed that the decommissioned WWTP structures and sludge beds were in the process of being dismantled and demolished by a Los Alamos County contractor. LANL staff present during the visit indicated the Permittees planned to obtain at least some environmental media samples during the rest of the demolition project. It is not clear to NMED whether or not samples were obtained, or if other types of documentation were subsequently collected by the Permittees.

In light of the site activities and altered site conditions observed in June 2008, NMED cannot conclude that the nature and extent of releases from the site are adequately defined by the existing sampling results as presented in the Report. While the site data collected prior to demolition of the WWTP indicates the site met NMED target risk levels for both carcinogens and non-carcinogens, no post-demolition site data or other documentation are available to determine current potential site risks that may have been the result of, aggravated by, or simply uncovered by demolition activities (e.g., no documentation provided of spills of liquids that may have occurred while excavating underground piping or demolishing structures that contained liquids, or of observations of staining or unusual odors., or the lack of such incidents).

The Permittees apparently did not conduct field screening, sampling or visual oversight activities after they became aware of the demolition work. It is therefore unclear how the Permittees can conclude that site conditions were unaffected by demolition and removal of above- and below-

ground site structures. Absent additional post-demolition site data evaluation, it is not possible for NMED to determine potential impacts, if any, associated with the changed site conditions.

NMED will not consider the site eligible for classification as corrective action complete until current site conditions and potential risks have been fully characterized and documented. To reiterate the directive in the June 2008 NOD, the work plan for additional evaluation of SWMU 00-018(a) must be submitted on or before October 24, 2008.

2. LANL Response to NOD, Specific Comment 2; Modification for SWMU 00-018(b) Bayo Canyon WWTP

In their response to the NOD, the Permittees indicated that future demolition of the Bayo Canyon WWTP would not constitute a corrective action under the March 2005 Compliance Order on Consent (Consent Order) because such demolition would not be undertaken to protect human health or the environment from a release. The Permittees assert that submittal of a work plan to NMED prior to demolition of the WWTP is "...not necessary."

Whether or not demolition of the WWTP constitutes a corrective action is moot, since the overarching purpose and scope of the Consent Order is to require that the Permittees prevent or mitigate exposure to, and the migration of, contaminants at the facility. While preparation of a work plan prior to demolition of the plant would not, in itself, prevent or mitigate migration of potential contaminants, demolition of the plant could result in releases of contaminants and possible worker exposure to newly exposed potential contaminant sources. Preparation of a work plan prior to future demolition of the Bayo Canyon WWTP is consistent with NMED directives and LANL agreements to perform post-demolition sampling at other LANL sites.

Unless the Permittees are prepared to document site activities and field conditions during future demolition of the Bayo Canyon WWTP, they could be faced with a situation similar to that currently posed by the former Pueblo Canyon WWTP (i.e., being unable to demonstrate that site risks are unchanged from pre-demolition conditions).

A work plan must therefore be submitted to NMED at least 60 days prior to commencement of demolition and excavation activities at the Bayo WWTP. The purpose of the work plan is not to develop and provide detailed procedures and sequencing of future demolition activities; rather, the work plan must provide for photographic documentation, visual observations, field screening and potential sampling of newly exposed site soils and other materials which may contain or release potential contaminants to the environment.

3. LANL Response to NOD, Specific Comment 3; Modification for AOC 00-030(h) Septic System

In their response to the NOD, the Permittees indicated they plan to submit a work plan "...outlining the limited removal action and confirmation sampling for PAHs at AOC

00-030(h)." For clarification, the Permittees proposed a limited removal action at the site to target PAHs and other contributors to excess cancer risk (emphasis added by NMED) in the Report. The work plan must address all appropriate excess cancer risk drivers.

General Comments:

The following comments were not adequately addressed in the Permittees' response to the NOD. They are provided to inform the Permittees of NMED's concerns regarding how data should have been assessed in the risk analyses for the Pueblo Canyon Aggregate Area Report and are applicable to all future report submittals for other LANL Aggregate Areas where related issues are addressed. No written response to the comments is needed.

1. **NOD, Specific Comment 16 Response:** The second part of the response addressed barium. It is unclear what "general guideline" the response is referring to when addressing ranges of background values. If the site data are above the background reference value, a site attribution analysis comparing the site population to the background population must be conducted. It is possible for site data to be highly skewed toward the upper end of the range of background concentrations, indicating a low level release. Additional lines of evidence for exclusion of barium should have been provided for SWMU 00-018(a).

2. **NOD, Specific Comment 17 Response:** The limiting of the evaluation of ecological risk to only those constituents that are included in the ECORISK database is not acceptable. It is noted that the response indicates that ECORISK is being evaluated and updated to include additional constituents that are of concern at sites within LANL. However, the lack of a constituent in this database is not sufficient justification to exclude a constituent. In addition, elimination of a constituent based on frequency of detection may not be appropriate. If there is site history indicating that a constituent was used/present at a site, then frequency of detection may not be used to eliminate the constituent from analysis of risk. For each constituent that is eliminated based on frequency of detection, sufficient justification must be provided that it is unreasonable to assume the constituent could be present due to operations at the site/site history.

3. **NOD, Specific Comment 18 Response:** The comment concerning comparison of upper tolerance limits (UTLs) to upper confidence limits (UCLs) was adequately addressed. However, the comparison of site concentrations to the background range is not appropriate without additional lines of evaluation to include evaluation of the distributions of the two datasets (see General Comment No. 1). Additional lines of evidence are necessary to justify that site concentrations, while within a range for background, do not signify low level releases.

Please contact Daniel Comeau at (505) 476-6043, should you have any questions.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

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