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**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

January 5, 2015

Peter Maggiore, Assistant Manager  
U.S. Department of Energy  
National Nuclear Security Administration  
Los Alamos Field Office  
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Michael T. Brandt, Associate Director  
Environment, Safety, and Health  
Los Alamos National Laboratory  
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**RE: APPROVAL  
INVESTIGATION REPORT FOR AREA OF CONCERN 01-007(K) IN THE  
UPPER LOS ALAMOS CANYON AGGREGATE AREA  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID#NM0890018  
HWB-LANL-14-018**

Dear Messrs. Maggiore and Brandt:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy (DOE) and Los Alamos National Security, L.L.C.'s (collectively, the Permittees) document entitled *Response to the Notice of Disapproval for the Investigation Report for Area of Concern 01-007(k) in the Upper Los Alamos Canyon Aggregate Area and Revision 1* (Report), dated November 25, 2014 and referenced by ADESH-14-128/LA-UR-14-28893/EP2014-0471. NMED has reviewed the Report and issues this Approval with the following comments. The comment numbers correspond to the comments in NMED's Disapproval letter of August 21, 2014.

**General Comment:**

The original comment acknowledged that the lines of evidence provided with the Report were sufficient for analyses of the vapor intrusion pathway. However, the comment noted that for sites where the vapor intrusion pathway has been deemed complete, collection of active soil gas data would be required for assessing the pathway (over use of bulk soil data).

The response indicated that the continued evaluation of the soil data, as presented in the investigation report for Area of Concern (AOC) 01-007(k) and other previous aggregate area reports, is adequate for most sites at the Laboratory where a plume does not exist. NMED acknowledges this response but further iterates that evaluation of the vapor intrusion pathway and requirement for collection of soil gas data or other data needs to assess this pathway will be made on a site-by-site basis.

**Specific Comments:**

**3. Section 5.1, Identification of COPCs, pages 12-13:**

Sufficient lines of evidence, including site photos and historical activities, were provided to suggest that polycyclic aromatic hydrocarbons (PAHs) detected in site soil are likely from non-AOC sources. The photographs show the AOC being in close proximity to several paved areas with the surroundings being highly developed; based on the photos, it appears that runoff from surrounding areas onto the AOC is plausible. However, note that approval of the presence of the PAHs as being a localized background is applicable only to AOC 07-001(k). For future submittals, sufficient lines of evidence must be presented for each site to demonstrate that the potential source(s) for constituents constitute a local pervasive presence of that constituent. Determinations will be made on a case-by-case basis. In addition, if any constituent is eliminated as a constituent of concern for a site as a result of localized source(s), risks must still be evaluated and included in the uncertainty analyses. (See Comment 9 below) It should be noted that the lines of evidence required may vary between sites and in some cases, delineation of source(s) using sampling may be required in defining the pervasive nature of constituents that could be considered as background levels.

NMED reiterates that contamination present at a solid waste management unit (SWMU) or an AOC must be addressed by the Permittees regardless of the source or responsible party. The SWMUs/AOCs cannot be granted corrective action complete status until it is demonstrated that the site does not pose unacceptable risk to human health or the environment under the current and reasonably foreseeable future land use scenario.

**4. Section 5.1.1, Inorganic Chemical and Radionuclide Background Comparisons, page 14:**

The revised handling of antimony, cadmium, and cyanide is acceptable as presented in the comment. There still appears to be a misunderstanding regarding the comment and allowance of comparison to background. Note that the NMED's 2012 Soil Screening Guidance has been revised and includes additional clarification concerning how to conduct a site attribution analysis. The updated Guidance is available at NMED-HWB website: [http://www.nmenv.state.nm.us/HWB/documents/RA\\_Guidance\\_for\\_SI\\_and\\_Remediation\\_12-24-2014.pdf](http://www.nmenv.state.nm.us/HWB/documents/RA_Guidance_for_SI_and_Remediation_12-24-2014.pdf)

**9. Section 6.2.4.3, Soil, Rock, and Sediment Sampling Analytical Results, page 21:**

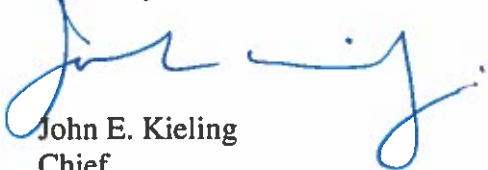
As noted for Specific Comment 3, it is agreed that the presence of PAHs at AOC 01-007(k) could be the result of non-SWMU activities, as discussed in the line of evidence and as shown in site photographs. As noted in the July meeting, the inclusion of the risks associated

with the PAHs as part of an uncertainty assessment is acceptable and further helps assess potential impacts and overarching site risks.

In addition, the Permittees provided risk screening tables for the industrial, construction worker, residential scenarios, and the minimum ecological screening level comparison with the PAHs included. The risk screening tables demonstrate that there is no significant contribution to potential risk to human health or the ecological receptors from PAHs at the site. Therefore, AOC 01-007(k) is appropriate for corrective action complete without controls.

Please contact Neelam Dhawan at (505) 476-6042 if you have questions.

Sincerely,



John E. Kielling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
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File: Reading and LANL 2015 NOD IR for AOC 01-007(k) Upper Los Alamos Canyon AA