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DCN: NMED-2011-15

Mr. David Cobrain  
New Mexico Environment Department (NMED)  
Hazardous Waste Bureau  
2905 Rodeo Park Dr. E, Bldg 1  
Santa Fe, NM 87505

RE: Draft Technical Review of Response to Notice of Disapproval (NOD) for the  
"Investigation Report for Potrillo and Fence Canyons, Los Alamos National Laboratory"  
dated February 24, 2011

Dear Mr. Cobrain:

This letter addresses the draft technical review of responses to risk assessment related Notice of Disapproval (NOD) for the "Investigation Report for Potrillo and Fence Canyons, Los Alamos National Laboratory" dated February 24, 2011. Unless specifically addressed below, or non-risk comments (General Comment No. 2 and Specific Comment No.4), all the responses to NODs were deemed adequate as provided.

General Comment No. 2. It is agreed that previously submitted reports on the canyons have illustrated data on maps showing spatial trends of contaminants in relation to the Rio Grande River. However, without evaluation of data within individual reaches, the reviewer cannot ascertain whether there are any localized hot spots that may cause undue risk. NMED may wish to evaluate this response in more detail.

Specific Comment No. 6. The response to this comment is partially adequate. However, it should be noted that the NMED comment merely pointed out an inconsistency in how LANL indicated they are treating non-detects and requested that LANL apply a consistent approach. Based on the information provided in their response, LANL may wish to re-evaluate their own policy, as the response contradicts its own guidance. For future assessments, LANL should ensure that all non-detects are handled in a consistent matter across a site.

Specific Comment Nos. 7 and 9. The responses to these comments are not adequate as provided. LANL has proposed using a hazard level of 3.0 for assessing ecological risk. The Environmental Protection Agency (EPA) and NMED guidance require a more conservative hazard level of 1.0.

The basis for the LANL 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

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Doursan and Stara paper. No supporting documentation could be found indicating whether the paper had undergone any extensive peer-review or that the conclusions have been accepted by EPA or other agencies. No precedence could be found where other regulatory agencies have deviated from the target hazard level of 1.0 to indicate acceptable risk, nor was any precedence found where other regulatory agencies relied on the content of the Doursan and Stara paper.

As such, NMED does not accept the Doursan and Stara paper as justification for deviating from NMED, EPA, and LANL guidance for ecological risk as discussed in the original NMED comments. 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 LANL referenced past investigation reports (dated 2004 and 2005) where this approach was deemed acceptable. Risk assessment is not a fixed science but is continually changing to incorporate new methodologies, data, and knowledge. Reports previously approved may also be based on antiquated toxicity data. It is understood that risk assessment procedures may change over time and thus the review process may change as well. The argument that an assumption applied several years ago was approved is not a valid argument for the Potrillo and Fence Canyons report.

Specific Comment No. 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. Results from biota studies may however provide an understanding of risk levels as discussed in an uncertainty assessment. LANL indicates in their response that biota studies are only warranted when there may be an adverse ecological risk. The provided response does not address NMED's original question. 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.

If you or any of your staff have questions, please contact me at (801) 451-2864 or via email at [paigewalton@msn.com](mailto:paigewalton@msn.com).

Thank you,



Paige Walton  
AQS Senior Scientist and Program Manager

CC: Neelam Dhawan, NEMD (electronic)  
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