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National Nuclear Security Administration Los Alamos Site Office, MS A316 Environmental Restoration Program Los Alamos, New Mexico 87544 (505) 667-4255/FAX (505) 606-2132

*Date*: December 19, 2008 *Refer To*: EP2008-0666

James P. Bearzi, Bureau Chief Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505-6303

## Subject: Submittal of Request for Extension of Completion Date for Regional Monitoring Well R-45

Dear Mr. Bearzi:

The Los Alamos National Laboratory (the Laboratory) is requesting an extension to the well completion date for regional well R-45 to January 30, 2009, to ensure well integrity over the Laboratory's holiday break. The request for extension is based on the driller's recommendation to leave the borehole in a state that significantly reduces the risk of losing the hole because of borehole instability or stuck casing if the hole is advanced into the regional aquifer and left inactive for a period of time over the holiday break. The Laboratory's experience with aquifer conditions in this portion of Sandia Canyon is that unstable formation conditions are common at depths within the regional aquifer that are consistent with the target depth for R-45.

December 31, 2008, is the current target date for completing the well to meet the May 30, 2009, stipulated penalty date for the well completion report. The new target date of January 30, 2009, will still enable the Laboratory to meet the May 30, 2009, date for submitting the well completion report and obtain timely analytical results from the completed well to support the chromium investigation and the Sandia Canyon investigation report, which is due on August 31, 2009.

Drilling at R-45 is in progress, and as of December 14, 2008, the borehole is at a depth of 720 ft below ground surface (bgs). Total depth of 1060 ft bgs is planned. The borehole has been advanced beneath the Cerros del Rio basalt and is into the Puye Formation. Total depth could be achieved before the holiday break, but well construction will probably not be completed in that time frame. The driller has recommended stopping borehole advancement at the water table until the Laboratory is back in operation on January 5, 2009. Prior to the holiday break, the driller will change from open-hole to casing-advance drilling. Before the casing is set in the hole, the drillers will lower a video camera to assess borehole conditions. After casing is set to the current depth in the borehole, casing-advance drilling will resume to the top of the regional aquifer anticipated at 860 ft bgs.

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On the current 24 hr/day schedule, the top of the regional aquifer will be reached on or about December 21, assuming no additional adverse weather conditions like those being experienced during the week of December 15. If the top of the regional aquifer is reached at R-45 before the holiday break, the rig crews will be shifted to R-46 at Material Disposal Area C.

The Laboratory has seven wells being advanced or constructed at this time. The decision to set a stopping point at R-45 to lower the risk of losing well R-45 is consistent with decisions that will be made for each of the other wells in progress.

If you have any questions, please contact Danny Katzman at (505) 667-6333 (katzman@lanl.gov) or Nancy Werdel at (505) 665-3619 (nwerdel@doeal.gov).

Sincerely,

and

Michael J. Graham, Associate Director Environmental Programs Los Alamos National Laboratory

## MG/DG/PH/DK:sm

Sincerely,

David R. Gregory, Project Director Environmental Operations Los Alamos Site Office

Cy: Laurie King, EPA Region 6, Dallas, TX Steve Yanicak, NMED-OB, White Rock, NM Tom Skibitski, NMED-OB, Santa Fe, NM Keyana DeAguero, DOE-LASO (date-stamped letter emailed) Nancy Werdel, DOE-LASO, MS A316 Hai Shen, DOE-LASO, MS A316 Danny Katzman, EP-LWSP, MS M992 Paul Huber, EP- LWSP, MS M992 Michael J. Graham, ADEP, MS M991 Alison M. Dorries, WES-DO, MS M992 Kristine Smeltz, WES-DO, MS M992 EP-LWSP File, MS M992 RPF, MS M707 IRM-RMMSO, MS A150 (date-stamped letter emailed)