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Date: December 20, 2011
Refer To: ENV-RCRA-11-0284
LAUR: 11-12262

Mr. Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2261
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Schoeppner:

SUBJECT: DISCHARGE PERMIT APPLICATION FOR THE LAND APPLICATION OF TREATED GROUNDWATER FROM A PUMPING TEST AT WELL R-28

The US Department of Energy and Los Alamos National Security, LLC (DOE/LANS) are in receipt of your November 9, 2011, letter (Appendix A) requiring a Discharge Permit application for the land application of treated groundwater from a pumping test at monitoring well R-28. The objective of this application is to demonstrate "good cause", in accordance with the provision of Subsection B of 20.6.2.3106 New Mexico Administrative Code (NMAC), and receive from the New Mexico Environment Department (NMED) permission to conduct this discharge without an approved Discharge Permit for a period not to exceed 120 days. As was discussed during a December 7, 2011 telephone conference, DOE/LANS is limiting this application to the R-28 pumping test. Per your request, enclosed are three copies of the required application and \$100.00 filing fee.

The 10-day pumping test at monitoring well R-28 will be conducted pursuant to a requirement in the NMED Hazardous Waste Bureau-approved Sandia Canyon Phase II Investigation Work Plan (Appendix E). The work plan describes a cross-hole pumping test at R-28 to better define the spatial distribution of regional aquifer heterogeneity and anisotropy in the vicinity of the chromium plume near wells R-28 and R-42. Data collected from the pumping test will be used to constrain flow parameters used in the model for groundwater flow and transport in the regional aquifer and will be reported in the Sandia Canyon Phase 2 Investigation Report due to NMED Hazardous Waste Bureau on July 31, 2012.

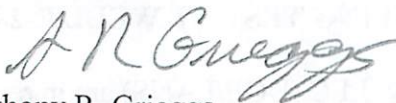
Groundwater produced during the pumping test at R-28 will be treated by ion exchange (IX) prior to land application. The IX treatment system will remove chromium to less than the New Mexico Water Quality Control Commission (NMWQCC) Regulation 3103 groundwater standard of 50 µg/L. Based on existing water quality data from R-28, no other regulated contaminants exceed NMWQCC Regulation 3103 groundwater standards.

At a pumping rate of 30 gallons per minute for 10 days, the pumping test is expected to produce measureable responses at nearby monitoring wells, including R-43, R-42, R-11, R-35b, R-36, R-45, R-44, R-50, R-15, and R-33. Los Alamos County (the County) drinking water supply wells PM-5 and PM-3, also in the vicinity of R-28, must not be in an active pumping mode during the test to eliminate the potentially interfering signal on water-level responses. The County has agreed to halt pumping at PM-3 and PM-5 during the test, but only if the test is conducted during the winter, low-demand, season. The County has informed DOE/LANS that the target date for completing the test—including the water-level recovery period—should be March 15, 2012. This target date also provides DOE/LANS an opportunity to adequately incorporate the pumping test data into the Sandia Canyon Phase 2 Investigation Report.

To achieve the March 15, 2012, target date, DOE/LANS will need to receive permission from the NMED Ground Water Quality Bureau no later than February 1, 2012. Therefore, we respectfully request your agency's expedited review of this Discharge Permit application.

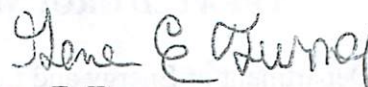
Please contact Bob Beers at (505) 667-7969 of the Water Quality and RCRA Group (ENV-RCRA) if you have questions.

Sincerely,



Anthony R. Grieggs
Group Leader
Water Quality & RCRA Group
Los Alamos National Laboratory

Sincerely,



Gene E. Turner
Environmental Permitting Manager
Environmental Projects Office
Los Alamos Site Office
National Nuclear Security Administration

Enclosures: a/s

Cy: James Bearzi, NMED/SWQB, Santa Fe, NM, w/enc.
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Carl A. Beard, PADOPS, w/o enc., A102
Michael T. Brandt, ADESH, w/o enc., K491
Michael Graham, ADEP, w/o enc., M991
Victoria George, REG-DO, w/o enc., M991
Kate Lynnes, REG-DO, w/enc., M991

Cy (Continued):

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Gene E. Turner, LASO-EO, w/enc., A316
Ted Ball, MNGRFCT-DO, w/o enc., M996
Steve Pearson, CAP-FS, w/o enc., K497
Mike Saladen, ENV-RCRA, w/o enc., K490, (E-File)
Bob Beers, ENV-RCRA, w/enc., K490, (E-File)
Taylor Valdez, w/o enc., K404, (E-File)
Linda Salazar, w/o enc., K491, (E-File)
ENV-RCRA File, w/enc., M704
IRM-RMMSO, (U1102191), w/enc., A150