March 31, 2017

John C. Bretzke                                      Cheryl L. Rodriguez
Division Leader                                      Program Manager, FPD-II
Environmental Protection & Compliance Division        Environmental Management
Los Alamos National Security, LLC                     Los Alamos Field Office
PO Box 1663, K491                                     3747 West Jemez Road
Los Alamos, NM 87545                                  Los Alamos, NM 87544

RE: Response to Notice of Intent to Discharge; DP-1835; Los Alamos National Laboratory

Dear Mr. Bretzke and Ms. Rodriguez,

On March 16, 2017, the New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) received a Notice of Intent to Discharge (NOI) from the U.S. Department of Energy and Los Alamos National Security (DOE/LANS). DOE/LANS requests authorization to discharge nonreactive tracers to the regional aquifer surrounding Mortandad Canyon using existing piezometer CrPZ-1 (permitted groundwater monitoring point for discharge permit DP-1835). The NOI satisfies the requirements of 20.6.2.1201.A NMAC of the Ground and Surface Water Protection Regulations (20.6.2 NMAC).

The proposed discharge is located approximately three miles southeast of Los Alamos in Sections 24 and 25, Township 19N, Range 06E, Los Alamos County, NM. Groundwater most likely to be affected lies in a regional aquifer from 900-1100 feet below ground surface and has a total dissolved solids concentration of approximately 150 milligrams per liter.

The NOI describes the tracer study as a means of evaluating groundwater flow velocities near the periphery of the hexavalent chromium (CrVI) plume beneath Mortandad Canyon, and assessing potential remedial alternatives for the Cr(VI) contaminated groundwater plume.
The tracers to be injected will be Disodium 2,6-Naphthalenedisulfonate (Na-2,6 NDS) and/or Disodium 1,5-Naphthalenedisulfonate (Na-1,5 NDS). A series of four injections is planned, each using a solution containing two grams of tracer mixed with 50 gallons of potable water. After concentrations of each previous injections have declined sufficiently, the subsequent injection will be initiated until the series is complete.

The permittees are not allowed to introduce any new tracers and will submit a final work plan upon completion of the study.

The information provided indicates it is unlikely that the discharge will adversely affect groundwater quality, and NMED has determined that an amendment or modification to DP-1835 is not required so long as the discharge is conducted as described. You are not relieved of liability should this operation result in actual pollution of ground or surface waters. Further, this decision by NMED does not relieve you of your responsibility to comply with any other applicable federal, state, or local laws, regulations, zoning requirements, plumbing codes, and nuisance ordinances.

If at some time in the future you intend to change the amount, character, or location of your discharge, or if observation or monitoring shows that the discharge is not as described in your NOI, you must file a revised NOI with the Ground Water Quality Bureau. If you have any questions, please contact Stephen Pullen of the GWQB Pollution Prevention Section at (505) 827-2962.

Sincerely,

Michelle Hunter, Chief
Ground Water Quality Bureau

MH:gmh

cc: John Kieling, NMED/HWB
    Shelly Lemon, NMED/SWQB
    Susan Lucas Kamat, NMED/DOEOB
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