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**NEW MEXICO
ENVIRONMENT DEPARTMENT**



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September 25, 2017

John C. Bretzke, Division Leader
Environmental and Compliance Division
Los Alamos National Laboratory
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Los Alamos, NM 87545

Cheryl L. Rodriguez, Program Manager,
FPD-II
Environmental Management
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, NM 87544

RE: NMED Response - Notification of Commencement of Injection at CrIN-6, Discharge Permit DP-1835, Class V Underground Injection Control Wells

Dear Mr. Bretzke and Ms. Rodriguez,

On September 22, 2017, the United States Department of Energy (DOE) and Los Alamos National Security, LLC (LANS) (collectively the Permittees) submitted to the New Mexico Environment Department (NMED) a notification of commencement of injection at CrIN-6 (Notification). The Notification is submitted in accordance with Condition No. 4 of Discharge Permit DP-1835. The Notification states that the discharge of treated groundwater to injection well CrIN-6 will commence on or after September 25, 2017, as part of a system-wide "functional" test that also includes injection into injection wells CrIN-1, -2, -3, -4 and -5. The Notification requests approval from NMED for inclusion of CrIN-6 in the functional testing of the extraction/injection system. Notifications of commencement of injection at CrINs 1, 2 and 3 occurred on July 13, 2017, and for CrINs 4 and 5 on November 3, 2016. Injection into six wells was originally proposed by the Permittees in an Interim Measures Work Plan for Chromium Plume Control (Work Plan) dated May 26, 2015.

The Notification describes functional testing as a test of both individual components and wells in the extraction-treatment-injection system and system-scale extraction-treatment-injection utilizing three extraction wells and six injection wells in various configurations. This functional test has been described as a short-term, small-volume test, tantamount to a test-drive, and the Notification specifies that the initial discharge to CrIN-6 will be limited to an upper volume limit of 230,000 gallons.

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NMED notified the Permittees of its concerns regarding injection into CrIN-6 in correspondence dated September 1, 2017. Among those concerns is that full-scale injection into wells CrIN-1 and CrIN-6 has the potential to exacerbate the degradation of groundwater quality in violation of DP-1835. NMED's correspondence required that prior to full-scale injection into CrIN-1 and CrIN-6 the Permittees are to provide the agency additional hydraulic and chemical data on the associated portion of the regional aquifer.

NMED acknowledges that the Permittees' Notification is for functional testing of the extraction-treatment-injection system, that the proposed injection is not a full-scale implementation of the Work Plan, and that the proposed injection into CrIN-6 is not contrary to NMED's September 1, 2017, correspondence. NMED understands that after the completion of functional testing the Permittees will submit an operational and hydraulic test work plan to NMED that will fully describe how the operational and hydraulic testing is anticipated to further the understanding of the characteristics of the injection wells (how each accepts water), including CrIN-6, and how testing should provide an overall technical and operational path forward that will adequately address key technical uncertainties. For these reasons NMED approves injection into all wells, including CrIN-6, for the purposes of functional testing.

NMED would like to express its appreciation to the Permittees for their aggressive actions towards achieving the plume control objective of Chromium Interim Measure.

Please contact Steve Pullen at (505) 827-2962 if you require any additional information.

Sincerely,



Michelle Hunter, Chief
Ground Water Quality Bureau

MH:SP

cc (electronic): John Kieling, NMED-HWB
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