



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6313  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.env.nm.gov](http://www.env.nm.gov)



BUTCH TONGATE  
Cabinet Secretary

J. C. BORREGO  
Deputy Secretary

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

June 6, 2018

Doug Hintze  
Manager  
Environmental Management  
Los Alamos Field Office  
P.O. Box 1663 MS-M984  
Los Alamos, NM 87545

Joseph A. Legare  
Program Manager  
Environmental Remediation Program  
Newport News Nuclear BWXT-LA (N3B)  
600 Sixth Street  
Los Alamos, NM 87544

**RE: EVALUATION OF CHROMIUM PLUME CONTROL  
INTERIM MEASURE OPERATIONAL ALTERNATIVES  
FOR INJECTION WELL CrIN-6  
LOS ALAMOS NATIONAL LABORATORY (LANL)  
EPA ID #NM0890010515  
HWB-18-024**

Dear Messrs. Hintze and Legare:

The New Mexico Environment Department ("NMED") has received from the United States Department of Energy ("DOE") and Los Alamos National Security, LLC, ("LANS") *Evaluation of Chromium Plume Control Interim Measure Operational Alternatives for Injection Well CrIN-6* ("Report"), dated April 26, 2018 and referenced by EP2018-0060/LAUR-18-23385.

Subsequent to the submittal of the Report, DOE transferred this effort from LANS to DOE's contractor Newport News Nuclear BWXT-LA ("N3B"), which is also a permittee under EPA ID #NM0890010515. Hereafter, DOE and N3B are collectively referred to as the "Permittees."

The Report was submitted to satisfy requirements found in NMED's November 21, 2017 correspondence entitled *Path Forward In Response to NMED's September 1, 2017 Notification to Temporarily Limit Injection into CrIN-1 and CrIN-6, Discharge Permit DP-1835*. The Report presents the results of an evaluation conducted to assess operational alternatives for

Messrs. Hintze and Legare

June 6, 2018

Page 2

implementing a protective interim-measure ("IM") approach in the eastern portion of the chromium plume, specifically in the area near injection well CrIN-6. Based on the modeling results presented in the Report, DOE has concluded that continuous extraction, rather than injection, at CrIN-6 provides the highest probability that the IM objectives for the eastern part of the plume will be met.

DOE has requested an expedited response from NMED to proceed with preparing the administrative and infrastructure changes necessary to convert CrIN-6 from an injection well into an extraction well. NMED has conducted a preliminary review of the Report and approves the conversion of CrIN-6 to an extraction well. NMED's decision to approve the conversion of CrIN-6 is based on the IM objective of controlling plume migration and reducing the potential to increase chromium mass migration towards downgradient Los Alamos County production well PM-3. NMED will conduct a comprehensive review of the Report, including modeling results, and provide comments to the Permittees at a future date.

Additionally, the conversion of CrIN-6 to an extraction well presents an opportunity to conduct additional contaminant and hydraulic properties testing such as in-situ colloidal borescope testing and hydrophysical logging prior to the installation of the CrIN-6 extraction pump and other well components. Results from this testing may provide useful data and information concerning the existence of potential deep-flow paths and the configuration of preferential pathways, and refine the conceptual and numerical modeling for chromium-plume migration towards the east. Therefore, NMED requests to meet with the Permittees prior to the initiation of infrastructure changes at CrIN-6 to discuss the possibility of collecting additional data.

If you have any questions or comments regarding this correspondence, please contact Robert Murphy at 505-476-6022.

Sincerely,



John E. Kielling

Chief

Hazardous Waste Bureau

cc: J.C. Borrego, NMED Deputy Secretary  
N. Dhawan, NMED HWB  
R. Murphy, NMED HWB  
M. Dale, NMED HWB  
D. Andersen, NMED HWB  
B. Yurdin, NMED WPD  
M. Hunter, NMED GWQB  
S. Yanicak, NMED DOE OB, MS M894  
L. King, EPA Region 6, Dallas, TX  
A. Duran, DOE-EM-LA

Messrs. Hintze and Legare

June 6, 2018

Page 3

C. Rodriquez, DOE-EM-LA  
J. Buckley, EPC-CP, MS K490  
K. Ellers, ADEM, MS M992  
locatesteam@lanl.gov  
emla.docs@em.doe.gov

File: Reading and LANL 2018, Chromium plume control interim measure, CrIN-6 Evaluation Report