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*Date:* MAY 25 2016  
*Symbol:* EPC-DO-16-130  
*LA-UR:* 16-23507  
*Locates Action No.:* N/A

Ms. Michelle Hunter, 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 Ms. Hunter:

**Subject: Amendment to Discharge Permit Application DP-1835**

In April 2015 the U.S. Department of Energy and Los Alamos National Security, LLC (DOE/LANS) submitted a discharge permit application (DP-1835) to inject treated groundwater into multiple Class V Underground Injection Control (UIC) wells at Los Alamos National Laboratory (ENV-DO-15-0085). Following discussions with the New Mexico Environment Department (NMED) on May 11, 2016, DOE/LANS proposed to add perchlorate monitoring to the discharge permit application's sampling plan. Perchlorate is present within the chromium plume and could potentially be in groundwater pumped from the extraction wells described in discharge permit application DP-1835. Perchlorate and other collocated constituents (e.g., nitrate) that may be present in pumped groundwater are expected to be below New Mexico Water Quality Control Commission groundwater standards prior to treatment. Any perchlorate pumped from extraction wells will be treated by the same ion exchange (IX) resin used to remove chromium and nitrate prior to injection. Routinely monitoring the treated water for perchlorate will provide assurance of permit compliance and also provide valuable information on treatment efficiency.



Section B-13 of the April 2015 Discharge Permit Application referenced above contains a table titled, *Proposed Discharge Quality Compliance Monitoring Plan*. DOE/LANS propose to add perchlorate (ClO<sub>4</sub>) to the analytes list. A revised table is presented below.

**Discharge Permit Application for Class V Underground Injection Control (UIC) Wells  
Section B-13. Discharge Quality Monitoring**

**Proposed Discharge Quality Compliance Monitoring Plan (Revised May 16, 2016)**

| Analytical Laboratory     | Sampling Location              | Time Period After System Startup or Modification | Frequency | Analytes                                 | Sample Type | Sample TAT <sup>1</sup> |
|---------------------------|--------------------------------|--|-----------|--|-------------|-------------------------|
| <b>Stage 1</b>            |                                |  |           |  |             |                         |
| Contract lab <sup>2</sup> | Post IX treatment <sup>3</sup> | weeks 1-8  | weekly    | NO <sub>3</sub> -N, Cr, ClO <sub>4</sub> | filtered    | 7-day <sup>5</sup>      |
| <b>Stage 2</b>            |                                |  |           |  |             |                         |
| Contract lab <sup>2</sup> | Post IX treatment <sup>3</sup> | weeks 10-12-14                                   | biweekly  | NO <sub>3</sub> -N, Cr, ClO <sub>4</sub> | filtered    | 7-day <sup>5</sup>      |
| <b>Stage 3</b>            |                                |  |           |  |             |                         |
| Contract lab <sup>2</sup> | Post IX treatment <sup>3</sup> | after 14 weeks                                   | monthly   | NO <sub>3</sub> -N, Cr, ClO <sub>4</sub> | filtered    | 7-day <sup>5</sup>      |
| <b>Annual</b>             |                                |  |           |  |             |                         |
| Contract lab <sup>2</sup> | Post IX treatment <sup>3</sup> | one year   | annual    | Full-suite <sup>4</sup>                  | varies      | 30-day                  |

**Notes:**

<sup>1</sup> TAT means the turn-around-time for sample analysis and reporting from the analytical laboratory.

<sup>2</sup> Contract lab means an off-site, independent analytical laboratory that is NELAP certified.

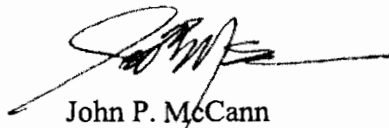
<sup>3</sup> Post IX treatment means after the last IX treatment vessel. See POC Sample Location on the Chromium Project Process Flow Diagrams, Appendix A.

<sup>4</sup> Full-suite means all water contaminants listed in 20.6.2.3103 NMAC and all toxic pollutants defined in 20.6.2.WW NMAC.

<sup>5</sup> The sample TAT for perchlorate is 10 days.

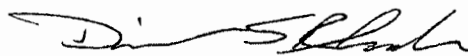
Please contact Robert S. Beers by telephone at (505) 667-7969 or by email at [bbeers@lanl.gov](mailto:bbeers@lanl.gov) if you have questions regarding this amendment.

Sincerely,



John P. McCann  
Acting Division Leader  
Environmental Protection & Compliance Division  
Los Alamos National Security, LLC

Sincerely,



David S. Rhodes, Director  
Office of Quality and Regulatory Compliance  
Environmental Management  
Los Alamos Field Office

Ms. Michelle Hunter  
EPC-DO-16-130

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GROUND WATER

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