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**GROUND WATER**

**JUN 1 1 2019**

**BUREAU**

*Date:* JUN 1 1 2019  
*Refer To:* N3B-19-0173

Mr. Steve Pullen  
Ground Water Quality Bureau  
New Mexico Environment Department  
1190 S. St. Francis Drive  
Santa Fe, NM 87505

**Subject: Sources of Groundwater for Land Application under Discharge Permit 1793, Work Plan #5**

Dear Mr. Pullen:

On July 27, 2015, the New Mexico Environment Department (NMED) issued Discharge Permit 1793 (DP-1793) to the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC (LANS). DOE/LANS submitted "Multiple Activities Work Plan for the Treatment and Land Application of Groundwater from Mortandad and Sandia Canyons, DP-1793 Work Plan #5" (Work Plan #5) on March 16, 2017 (Los Alamos National Laboratory [LANL] document EPC-DO: 17-050) for the continued land application of treated groundwater at Technical Area 05. NMED approved Work Plan #5 with conditions on June 15, 2017. On September 28, 2017, DOE/LANS submitted an amendment to Work Plan #5, requesting to extend the project schedule end date for the work plan. An additional amendment to Work Plan #5 was subsequently submitted to NMED by DOE/LANS on October 26, 2017 (LANL document EPC-DO: 17-422) to add an additional groundwater source for land application. On April 30, 2018, DP-1793 was transferred from LANS to Newport News Nuclear BWXT-Los Alamos, LLC (N3B).

Work Plan #5, as currently approved, identifies the following four activities generating groundwater to be treated and land applied:

1. Legacy water remaining from calendar year 2016 activities.
2. Water generated from well installations in 2017:
  - a. Development, aquifer testing, and extended pumping at new extraction well(s);
  - b. Development, aquifer testing, and injection capacity evaluation at new injection well(s); and
  - c. Monthly sampling at injection wells before injection at these locations.
3. Groundwater generated during operation and maintenance activities at extraction wells and injection wells in 2017.

4. Groundwater generated from routine purging during sampling of contaminant-affected monitoring wells under the NMED-approved 2017 Monitoring Year Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) and up to 5 days of pumping at additional piezometers/monitor wells associated with the Chromium Project.

The purpose of this letter is to request an amendment to Work Plan #5 to clarify the groundwater sources that may be land applied under DP-1793. DOE/N3B are proposing to clarify the activities generating groundwater to be treated and land applied as follows:

1. Legacy water generated in a previous calendar year from activities 2 through 4 listed below.
2. Water generated from well installations within the Chromium Project area:
  - a. Development, aquifer testing, and extended pumping at new extraction well(s);
  - b. Development, aquifer testing, and injection capacity evaluation at new injection well(s);
  - c. Development and aquifer testing at new monitoring well(s); and
  - d. Monthly sampling at injection wells before injection at these locations.
3. Groundwater generated during operation and maintenance activities at extraction wells and injection wells within the Chromium Project area.
4. Groundwater generated from routine purging during sampling of contaminant-affected monitoring wells under the current NMED-approved monitoring year IFGMP and up to 5 days of pumping at additional piezometers/monitoring wells associated with the Chromium Project.

The proposed changes in groundwater sources for land application under Work Plan #5 do not change the quality of water being land applied. Per Work Plan #5 and NMED's June 15, 2017, conditional approval, DOE/N3B conduct confirmatory sampling of the treated water before land application by means of compliance and operational samples. This sampling ensures that the quality of water being land applied adheres to the requirements of Work Plan #5 and DP-1793. Additionally, the proposed changes in groundwater sources will entail no increase in the quantity of water being land applied under Work Plan #5. The groundwater land application volumes specified in Work Plan #5 and DP-1793 will remain the same.

DOE/N3B are requesting the concurrence of NMED's Groundwater Quality Bureau with the proposed modifications to the groundwater sources that may be land applied under Work Plan #5. While the proposed changes do not increase the quantity or quality of treated groundwater being land applied, these changes are necessary to reflect the sources of groundwater that need to be treated and land applied under Work Plan #5.

If you have questions, please contact Christian Maupin at (505) 695-4281 (christian.maupin@em-la.doe.gov) or Cheryl Rodriguez at (505) 665-5330 (cheryl.rodriguez@em.doe.gov).

Sincerely,



Frazer Lockhart  
Program Manager  
Regulatory and Stakeholder Interface  
N3B-Los Alamos

Sincerely,



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