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Certified Mail - Return Receipt Requested

December 20, 2022

Brian D. Knight
Environmental Division (Building 163)
U.S. Army White Sands Missile Range
White Sands Missile Range, NM 88002-5000

**RE: APPROVAL WITH MODIFICATIONS
REVISED FINAL PHASE IV RCRA FACILITY INVESTIGATION WORK PLAN
FOR FORMER HELSTF LANDFILL SITES (SWMUS 38 AND 39)
WHITE SANDS MISSILE RANGE, NEW MEXICO
EPA ID #NM 2750211235
HWB-WSMR-17-001**

Dear Mr. Knight,

The New Mexico Environment Department (NMED) has received the U.S. Army White Sands Missile Range (the Permittee, WSMR) *Revised Final Phase IV RCRA Facility Investigation Work Plan for Former HELSTF Landfill Sites (SWMUs 38 and 39)* (Work Plan), dated October 2022 and received October 17, 2020. NMED has reviewed the Report and hereby issues this Approval with Modifications with the following comments.

1. Table 2-1 Groundwater Depths and Elevations:

NMED Comment: Many of the *Top of Casing Elevations* listed in Table 2-1 are different than the elevations reported in the well construction diagrams in Appendix A, Historical Boring Logs and Well Construction Diagrams. In addition, many of the *Water Elevations* reported in Table 2-1 are different than the elevations reported in the SWMUs 38 and 39, 2017 through 2019 Groundwater Frequent Monitoring Reports (GWFMRs). The Permittee must resolve these discrepancies prior to implementing the Work Plan. If the Permittee cannot adequately resolve the discrepancies identified by NMED in the Work Plan and GWFMRs then the Permittee must resurvey all of the existing monitoring wells that are part of this Work Plan, including monitoring wells that have been historically dry. The Permittee must provide NMED with an explanation of how the discrepancies were resolved and also provide all associated replacement pages for the Work Plan containing the correct groundwater elevations.

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Hazardous Waste Bureau - 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico 87505-6313
Telephone (505) 476-6000 - www.env.nm.gov

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2. Section 3.2 Reference Limits and Screening Levels for Groundwater:

NMED Comment: The Permittee has proposed to analyze for hexavalent chromium in groundwater using analytical test method E218.6. United States Environmental Protection Agency (EPA) documentation for method E218.6 indicates that overloading of the analytical column capacity with high concentrations of anionic species, especially chloride and sulfate, will cause a loss of hexavalent chromium in the analytical sample (Method 218.6: Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography, Rev. 3.3. EPA, 1994). Historic groundwater data for HELSTF sites demonstrate that both chloride and sulfate are present at high concentrations. As a result, it is likely that the hexavalent chromium data for groundwater samples collected at SWMUs 38 and 39 will not be representative of the actual concentrations in groundwater. Prior to implementing this Work Plan, the Permittee must determine if analytical method E218.6 is appropriate given the groundwater conditions at HELSTF. The Permittee must provide NMED with an explanation of how the issue has been resolved and replacement pages for the Work Plan if necessary. In addition, the New Mexico Administrative Code 20.6.2.3103 lists the cleanup standard for chromium as 0.05 mg/L. The Permittee must compare the total chromium concentrations to this level as specified by Permit Appendix 3, Section 3.1 (Groundwater Cleanup Levels).

The Permittee must address all comments in this Approval with Modifications and must submit a response letter to NMED prior to implementing the Work Plan describing how the issues described in NMED's comments have been resolved and replacement pages for the Work Plan, where necessary, no later than **March 1, 2023**. The Permittee must submit an Investigation Report summarizing the results of the implementation of the Work Plan no later than **March 4, 2024** as proposed.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

Should you have any questions, please contact Robert Murphy of my staff at (505) 690-5660.

Sincerely,

Rick Shean Digitally signed by Rick Shean
Date: 2022.12.20 07:55:09 -07'00'

Rick Shean
Bureau Chief
Hazardous Waste Bureau

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cc: D. Cobrain, NMED HWB
R. Murphy, NMED HWB
L. Tsinnajinnie, NMED HWB
B. Avalos, WSMR
J. Smith, WSMR
L. King EPA Region 6 (6LCRRC)

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