



Certified Mail - Return Receipt Requested

January 18, 2022

George H. Cushman
Headquarters, Department of the Army
Office of the DCS, G-9
Army Environmental Office, Room 5C140
600 Army Pentagon
Washington, DC 20310-0600

**RE: APPROVAL WITH MODIFICATIONS
FINAL REVISION 2 INTERIM MEASURES COMPLETION REPORT
PARCEL 21 – SOLID WASTE MANAGEMENT UNIT 1 – TNT LEACHING BEDS
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-19-006**

Dear Mr. Cushman,

The New Mexico Environment Department (NMED) is in receipt of the Fort Wingate Depot Activity (Permittee) *Final Revision 2 Interim Measures Completion Report Parcel 21 – Solid Waste Management Unit 1 – TNT Leaching Beds* (Report), dated September 2021. NMED has reviewed the Report and hereby issues this Approval with Modifications with the following comments.

Comments

1. Permittee's Response to NMED's Disapproval Comment 3, dated March 15, 2021

Permittee Statement: "Tables 5-24 and 5-25 present analytical results for the final post-use incremental samples collected from Area 1 (three decision units) and Area 2 (one decision unit). NMED SSLs have been added to each table and exceedances identified with shading. Figure 4-1 presents decision unit boundaries within Area 1 and Area 2."

NMED Comment: NMED's Disapproval Comment 3 directed the Permittee to provide a table that reports all contaminant concentrations in residual soils, including the corresponding

sampling locations, detected in samples obtained during the final sampling rounds in the soil stockpile staging areas that exceeded the NMED soil-leachate soil screening levels (SL-SSLs) and include the SL-SSL in a column of the table for comparison purposes. Although a column presenting regional screening level (RSL) was added to Tables 5-24 and 5-25, NMED SL-SSLs were not listed in the tables. Incorporate the direction provided by NMED's Disapproval Comment 3, revise the tables accordingly, and provide replacement tables. In addition, based on the analytical results presented in Tables 5-24 and 5-25, residual contaminant concentrations exceed the NMED SL-SSLs at several sample locations. For example, the RDX concentration in sample 2101B-AC02-0002-I-SO-A is recorded as 3.77 J mg/kg in Table 5-25 and exceeds the RDX SL-SSL of 5.93E-02 mg/kg listed in the NMED's November 2021 *Risk Assessment Guidance for Investigations and Remediation* (RAG). NMED's Disapproval Comment 3 also directed the Permittee to provide a figure depicting the locations of these exceedances. However, these exceedances are not presented in any figures. Incorporate the direction provided by NMED's Disapproval Comment 3 and provide a relevant figure.

2. Permittee's Response to NMED's Disapproval Comment 4, dated March 15, 2021

Permittee Statement: "Light molecular weight SVOCs, including naphthalene, are not target analytes for the stockpile staging area investigations nor were they detected in any discrete confirmation samples. Based on the absence of SVOC exceedances, soil excavated from SWMU 1 and stockpiled in Area 1 and Area 2 does not contain SVOCs at levels that indicate a source area or release."

NMED Comment: It is not appropriate to evaluate presence/absence of semi-volatile organic compounds (SVOCs) using Incremental Sampling Methodology (ISM). It is possible that the SVOC concentrations in the ISM samples are underestimated due to volatilization losses. Since appropriate/approved sampling methods (e.g., discrete sampling) were not utilized, the Permittee cannot conclude that light molecular weight SVOCs are not target analytes in the stockpile staging areas. Although NMED agrees that ISM is appropriate for explosive compound analysis (Method 8330B) in the stockpile staging areas, acknowledge that ISM is not applicable to SVOC analysis (Method 8270) and ISM must not be used for SVOC evaluation in the future.

3. Permittee's Response to NMED's Disapproval Comment 5, dated March 15, 2021

Permittee Statement: "A geotextile membrane is not appropriate because the bulk of the source (soil) has been removed and replaced by clean backfill. The maximum depth of 35 feet bgs was based on depth to groundwater in the SWMU 1 vicinity. Contamination below this depth is likely within the smear zone and subject to water table fluctuations. Having discontinued use of the leaching beds and removed the source of the contamination, the soil-to-groundwater pathway has essentially been eliminated because aquifer recharge

through local precipitation-driven infiltration is negligible. There is no ongoing source of explosives contamination and this, combined with a lack of aquifer recharge through percolation through the soil column from the surface, renders the soil-to-groundwater pathway incomplete. This issue will continue to be addressed under the Installation-Wide Groundwater Monitoring Program.”

NMED Comment: Although NMED agrees that the potential issue associated with SWMU 1 will continue to be addressed under the Facility-Wide Groundwater Monitoring Program, NMED disagrees that the soil-to-groundwater pathway is incomplete. Soil contaminant concentrations remain above the SL-SSLs at depths greater than ten feet below ground surface (bgs), as well as on the ground surface (see Comment 1). Based on the fact that the contaminants have already migrated to the aquifer and remain in the vadose zone soils, it is possible that residual contaminants could migrate to the aquifer beneath SWMU 1 and contribute to groundwater contamination. Therefore, it is not appropriate to conclude that the soil-to-groundwater pathway is incomplete. However, since the groundwater beneath SWMU 1 has already been contaminated with the contaminants of concern (COCs), an installation of a geotextile membrane will not provide significant protection to groundwater quality for the aquifer; it is unnecessary to install a geotextile membrane at this point. In the future, the Permittee must provide the confirmation sampling results and discuss courses of action (e.g., application of a soil amendment, installation of a geotextile membrane) with NMED prior to placing backfill material in any excavation. Acknowledge this provision in a response letter.

The Permittee must address all comments in this letter and submit an electronic version of the revised Report, a response letter, and replacement tables and figures no later than **April 29, 2022**.

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.

Mr. Cushman
January 18, 2022
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Should you have any questions, please contact Michiya Suzuki of my staff at (505) 690-6930.

Sincerely,

Rick Shean

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Date: 2022.01.18 09:26:49
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Rick Shean
Chief
Hazardous Waste Bureau

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