DEPARTMENT OF THE ARMY
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WASHINGTON, DC 20310-0600

April 4, 2022

Base Realignment and Closure Operations Branch

Mr. Rick Shean
Chief, Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

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. Shean:

This letter provides responses to the comments issued in the Approval with Modifications Letter, 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, from the New Mexico Department (NMED), dated January 18, 2022. In addition to the comment response provided in this letter, an electronic version of the revised report and replacement tables and figures for NMED files are provided.

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 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 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, 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 locations. For example, the RDX concentrations in sample 2101B-AC01-0002-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.

Army Response: Concur. A column identifying SL-SSLs has been added to Tables 5-24 and 5-25, and exceedances are identified by shading. In addition, Figure 4-1 has been revised to

indicate that Area 1 and Area 2 decision units (all) exhibit exceedances of SL-SSLs. Tables 5-24 (Figures pages 210 – 212) and 5-25 (Figures pages 213 – 214) have been replaced with the updated tables (same page numbers). In addition, Figure 4-1 (Figures page 11) has been replaced with the updated Figure 4-1.

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.

Army Response: Concur. Incremental Sampling Methodology (ISM) is not appropriate for samples undergoing analysis for SVOCs (Method 8270) and will not be used for future work.

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 the use of the leaching beds and removed the source of contamination, the soil-to-groundwater pathway has essentially been eliminated because 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 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 place backfill material in any excavation. Acknowledge this provision in a response letter.

Army Response: Concur. In the future, the Army will present confirmation results to NMED for review and discussion prior to placing backfill in excavations where remediation has been conducted.

If you have questions or require further information, please contact me at George.h.cushman.civ@army.mil, 703-455-3234 (Temporary Home Office, preferred) or 703-608-2245 (Mobile).

Sincerely,

George H. Cushman IV

George H. Cushman IV
BRAC Environmental Coordinator
Fort Wingate Depot Activity
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Enclosures

CF:

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