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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 15, 2021

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: DISAPPROVAL
FINAL REVISION 1 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 1 Interim Measures Completion Report Parcel 21 – Solid Waste Management Unit 1 – TNT Leaching Beds* (Report), dated November 25, 2020. NMED has reviewed the Report and hereby issues this Disapproval with the attached comments. The Permittee must address all comments in the attachment to this letter and submit a revised Report, a response letter that indicates where all comments were addressed in the revised Report, a redline strikeout electronic version of the revised Report indicating where **all** changes were made, and a revised electronic copy of the Report no later than **October 29, 2021**.

Mr. Cushman
March 15, 2021
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Should you have any questions or wish to discuss this matter, please contact me at (505) 629-6494, or Michiya Suzuki of my staff at (505) 476-6046.

Sincerely,

Kevin Pierard

Digitally signed by
Kevin Pierard
Date: 2021.03.15
08:05:52 -06'00'

Kevin M. Pierard, Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
M. Suzuki, NMED HWB
L. McKinney, EPA Region 6 (6LCRRC)
L. Rodgers, Navajo Nation
S. Begay-Platero, Navajo Nation
M. Harrington, Pueblo of Zuni
A. Whitehair, Southwest Region BIA
G. Padilla, Navajo BIA
J. Wilson, BIA
B. Howerton, BIA
R. White, BIA
C. Esler, Sundance Consulting, Inc.
M. Falcone, USACE

File: FWDA 2021 and Reading, Parcel 21

Attachment

SPECIFIC COMMENTS

1. Permittee's Response to NMED's Disapproval Comment 3, dated August 3, 2020

Permittee Statement: "Revisions to the Report are identified in the Red Line/Strike Out file provided with the Final, Rev.1 Interim Measures Completion Report."

NMED Comment: Significant revisions were made to the tables, figures, and appendices (e.g., Appendix D) in this submittal. These revisions are not identified in the Red Line/Strike Out (RLSO) electronic version of the Report. All revisions to text, tables, figures, and appendices must be identified in the RLSO electronic version in the future. Failure to include all revisions in the RLSO results in the need to conduct a complete review of the entire document by NMED staff in contrast to just reviewing revisions. This has been an issue between NMED and the Permittee in the past. Failure to provide an accurate and complete RLSO files in the future may result in further document disapprovals.

2. Permittee's Response to NMED's Disapproval Comment 4, Item a, dated August 3, 2020

Permittee Statement: "Shading was used to highlight chemicals with detected concentrations greater than background UTLs or where the sample LOD exceeds the lowest screening value [in the Residual Risk Calculations tables]."

NMED Comment: Tables D-8 through D-13 in Appendix D present the results of risk calculations. While the tables identify the chemicals with concentrations that exceed their respective background values, no chemicals were identified where the LOD exceeds the screening value. Clarify whether or not these chemicals were used in the risk calculations. Note that analytical data with LODs above their respective screening levels indicate potential screening level exceedances, are considered data quality exceptions, and cannot be used in risk evaluations or for decision-making purposes. Further, failure to provide analyses with LODs below the screening levels necessarily results in failure to meet risk assessment criteria.

In addition, any analytical data where the LOD exceeds the lowest screening level must be identified as such in all tables, figures, and discussions of the revised Report, as well as in all future document submittals by the Permittee. Representing these values as ND when the limit of detection is higher than the screening limit is a misrepresentation of the data. To resolve this issue the Permittee must not use "ND" but rather list the values as being less than the numeric LOD value in all future document tables and figures. Revise the Report accordingly.

Analytical data with LODs above screening levels is a recurring issue and must be resolved. The February 1, 2021 email from Mr. Wear of NMED to Mr. Cushman of FWDA provides a

clarification and direction regarding the analytes where the LODs exceed the applicable screening levels. The email requests specific information be provided for NMED's evaluation of this recurring issue. In the response letter, provide an anticipated date when the requested information will be submitted to NMED.

3. Permittee's Response to NMED's Disapproval Comment 15, dated August 3, 2020

Permittee Statement: "In summary, the samples collected from the soil stockpile staging areas were collected to characterize pre- and post-use conditions. These samples were not meant to characterize SWMU 1 soil contamination or evaluate risk."

NMED Comment: Regardless of the purpose of the sample collection, the ISM data collected indicates that the interim measure operations affected the soil stockpile staging areas and residual soil contaminant concentrations that exceed NMED SL-SSLs are present. Further characterization of these soils will be required following revision and approval of this Report.

Provide a table that reports all contaminant concentrations in residual soils, and their sampling locations, detected in samples obtained during the final sampling rounds in the soil stockpile staging areas that exceeded the NMED SL-SSLs. Include the NMED SL-SSL in a column of the table for comparison purposes. In addition, provide a figure depicting the locations of the exceedances. Revise the Report accordingly.

4. Permittee's Response to NMED's Disapproval Comment 17, dated August 3, 2020

Permittee Statement: "ISM is appropriate for most SVOCs if samples are not ground/milled or heated. Explosive compounds (which are SVOCs) and their degradation products, the COCs at this site, have minimal potential for loss. See Table 6-1 of ITRC ISM Guidance, 2012 for loss potential for various SVOCs (https://www.itrcweb.org/GuidanceDocuments/ISM-1_2012_with_Clarifications.pdf)."

NMED Comment: Table 6-1 of ITRC ISM Guidance indicates that the loss potential for naphthalene during the air-drying step is large. While the use of ISM for SVOCs for screening purposes rather than compliance purposes in the stockpile staging areas for this project is acceptable, the SVOC concentrations in the ISM samples are likely underestimated due to volatilization losses during homogenization and drying, and the results cannot be used for compliance purposes. In addition, no information was provided on sample collection, handling, homogenization, or drying methods. Provide these descriptions in the revised Report.

5. Permittee's Response to NMED's Disapproval Comment 20, dated August 3, 2020

Permittee Statements: "Approximately 69,500 CY were removed from the leaching beds in accordance with the design presented in the IMWP, reaching a maximum depth of 35 ft bgs in some areas. Once the excavation reached design limits, it was considered complete unless confirmation samples identified exceedances of human health and ecological performance standards."

and,

"The IM were not designed to remove all soil with explosives concentrations greater than SL-SSLs at depths greater than 10 ft bgs; they were designed to remove a specific volume of soil resulting in no unacceptable risk to human or ecological receptors from direct contact with soil up to 10 ft bgs."

NMED Comment: Comment 7 in the NMED's *Approval with Modifications*, dated October 31, 2017, states, "[e]xplosives were previously detected at a depth of 45 ft bgs in the TNT Leaching Beds. Residual soil contamination will likely remain below the total depth of the excavation (35 ft. bgs), and the Permittee will need to address the effect on groundwater. Once the excavation is backfilled, it will be difficult to access the excavation floors and to prevent residual contamination from migrating to groundwater; therefore, a contingency measure addressing residual soil contamination should be developed before the excavation is backfilled. For example, chemical reductants or biological amendments may be placed on the excavation floors where residual soil contamination is detected. Through infiltration and percolation, the chemical reductants or biological amendments may migrate from the soil to the groundwater along with the contaminants and could aid in degrading or immobilizing contaminants. Alternatively, sheet(s) of impermeable liner (e.g., high density polyethylene (HDPE)) may be placed above the excavation floor to minimize the effect of infiltration and percolation, thereby eliminating contaminant migration from soil to groundwater. This is not a requirement, but NMED recommends assessing the value of these types of measures prior to backfilling the excavation."

The Permittee left significant soil contamination in place and chose to forego NMED's recommendation regarding evaluation and implementation of measures to address contamination at depths greater than the bottom of the excavation prior to backfilling. Failure to address this concern will likely result in future increased costs to remediate groundwater contamination caused by the soil contamination source.

6. Permittee's Response to NMED's Disapproval Comments 21 and 23, dated August 3, 2020

Permittee Statements: "The referenced text in Section 5.3.1.2 has been revised to refer to Tables 5-6 through 5-8. A review of table numbers referenced in the text has been performed."

and,

“Figure 5-4 was mistakenly titled as “Phase 2 Confirmation Samples. Figure 5-4 presents Phase 1 confirmation samples collected from the 10-35-ft depth interval... Titles of all figures have been reviewed for accuracy.”

NMED Comment: The initial version of the Report contained many inaccuracies and discrepancies causing confusion for readers. It appears that a quality assurance review of the Report was not conducted. Identifying, researching, confirming, and documenting inaccuracies greatly extends review time. Extended review times can result in delays in the review of other documents, as well as delays in the overall corrective action progress at the facility. Ensure that all future document submittals are reviewed for quality assurance, as this is an ongoing and recurring issue.

7. Permittee’s Response to NMED’s Disapproval Comment 22, dated August 3, 2020

Permittee Statement: “Section 3.2.5 presents the strategy for evaluation of data collected from depths greater than 35 ft bgs.”

NMED Comment: Section 3.2.5 appears to present the strategy for evaluation of data collected from depths between ten and 35 feet bgs rather than depths greater than 35 feet bgs. Provide a clarification in the response letter and correct the statement, as appropriate.

8. Permittee’s Response to NMED’s Disapproval Comments 24 and 26, dated August 3, 2020

Permittee Statement: “Section 5.11, Groundwater Impacts, has been added to the report with the following discussion,” The IM are not a final remedy for SWMU 1; additional remediation goals and/or measures may be developed and implemented in the future. The Army, in coordination with NMED, will identify future remediation goals and proposes addressing these issues in a CMS. However, groundwater impacts have been minimized through removal of the majority of soil contamination.”

and,

“No contingency measures were implemented during the excavations. However, as described in Section 5.11, this is not the final remedy for SWMU 1. Additional remediation goals and/or measures may be developed and implemented in the future. The Army, in coordination with NMED, will identify future remediation goals and proposes addressing these issues in a CMS.”

NMED Comment: NMED concurs that the interim measures are not a final remedy for SWMU 1 as residual soil contamination remains at depths below ten feet bgs, as well as on the ground surface, and additional remedial measures are necessary to address groundwater contamination in the future.

The Permittee proposes to conduct a Corrective Measures Study (CMS). The CMS must

address residual soil contamination at depths below ten feet bgs and those left behind on the surface, as well as groundwater contamination. NMED has previously provided guidance to the Army regarding the evaluation of remedial alternatives. Until the surface contamination left behind in the soil staging areas is characterized appropriately, a CMS may be premature.