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OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
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DAIM-ODB

July 30, 2018

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

RE: Final Work Plan Inner Fence, Parcel 3 Revision 1.0, Response to February 7, 2018 Disapproval letter, Fort Wingate Depot Activity, McKinley County, New Mexico EPA #NM6213820974, HWB-FWDA-17-001.

Dear Mr. Kieling:

This letter is in reply to the New Mexico Environment Department (NMED) Letter of Disapproval dated February 7, 2018, reference number HWB-FWDA-17-001, Final Work Plan Inner Fence, Parcel 3, Revision 1.0, dated November 29, 2017. The following are the Army's responses to NMED comments detailing where each comment was addressed and cross-referencing the numbered NMED comments.

Comments:

1. Table of Contents, Lists of Acronyms

NMED Comment: Definitions for some acronyms (e.g., HTRW, HNC, NONEL, UXOQP) are not provided in the Work Plan. Each acronym must be defined in the text or the document, *List of Acronyms*. Revise the Work Plan to provide definitions for these acronyms.

Army Response: Concur. The Work Plan was reviewed and revised to include all acronyms.

2. Section 1.2.1.4, Section IV.D Kickout Area Clearance Report, lines 2-4, page 1-3

Permittee Statement: "Within 180 days of the completion of the KOA investigation, clearance, and removal of WMM and WMM scrap from the KOA, the Army will provide the NMED a report summarizing the results of this work."

NMED Comment: Field work will be completed on November 20, 2019 and report preparation will start on January 27, 2022 according to Figure 2-2, *Project Schedule*. No activities are scheduled in 2020 and 2021 according to Figure 2-2. As the Permittee intends to provide NMED a report within 180 days of field work completion, the report pertaining to the investigation and removal activities in the Inner Fence Area must be submitted by May 20, 2020. Correct the discrepancy or explain why no activities are proposed in the 2020 and 2021 schedule in the revised Work Plan.

Army Response: Concur. The completion date for Inner Fence fieldwork is dependent upon varying densities of MEC and debris. Based on the approved project schedule, the end of fieldwork could extend to 9/8/21. Therefore, the schedule was revised to change the fieldwork end date to 9/8/21. Additionally, the schedule was updated to show the Army review of the removal report from 9/9/21 to 1/26/22. The planned NMED review will start on 1/27/22.

3. Section 1.3, Investigation & Clearance Summary, lines 30-32, Page 1-3

Permittee Statement: "MPPEH and MD inspection, handling, and final disposition as MDAS will be conducted IAW USACE EM 385-1-97, Change 1, DoD 4140.62, and DoD 6055.09-M."

NMED Comment: NMED does not review the referenced engineering manuals. The Permittee must describe the process for how materials documented as an explosive hazard (MDEH) and safe (MDAS) are inspected and separated from material potentially presenting an explosive hazard (MPPEH) in the revised Work Plan.

Army Response: Concur. The MPPEH inspection process is presented in Section 3.7.9.2 of the Inner Fence Work Plan. The second paragraph of Section 1.3 was revised as follows: "MPPEH and MD inspection, handling, and final disposition as MDAS will be conducted IAW USACE EM 385-1-97, Change 1, DoD 4140.62, and DoD 6055.09-M as detailed in **Section 3.7.9.2**. All MDEH will be destroyed using authorized disposal procedures. All MDAS recovered at the KOA will be delivered to a metal recycler to be smelted following completion of the RA."

4. Section 3.1, Overall Approach to Munitions Response Activities, lines 7-8, page 3-1

Permittee Statement: "The removal will not occur in areas too steep to safely work as shown on Figure 1-2."

NMED Comment: If inaccessible areas are encountered during the investigation of the Inner Fence Area, use Figure 3-1, *Inner Fence Area Grid Map*, to depict areas where field investigation and removal of debris are not conducted. Present the map in future reports.

Army Response: Concur. The first paragraph of Section 3.1 was revised as follows: "The removal will not occur in areas too steep to safely work as shown on **Figure 1-2**. Areas with a slope of approximately 35 percent or more are considered too steep to safely work. If unsafe areas are encountered during the investigation and removal is not conducted, those areas will be documented in the field and depicted on maps presented in future reports."

5. Section 3.4, Instruments Test Strip, lines 23-25, page 3-4

Permittee Statement: "The purpose of the ITS is a QC measure demonstrating the functionality of the detection equipment being used during the RA operations and the ability of the equipment operator to detect items that may be encountered in the field."

NMED Comment: The results of the detection and recovery test must be presented in the Kickout Area Clearance Report (KOA Report). Indicate each test result with depths, soil types, orientation and size of the object. In addition, the Permittee must determine the maximum depths that the instrument is capable of detecting each object listed in Table 3-2, *Equivalent ISO Simulant Items* under typical subsurface conditions in the Inner Fence Area. In Section 3.1, *Overall Approach to Munitions Response Activities*, lines 34-35, page 3-1, the Permittee states, "[i]n general, the depth of detection utilizing hand-held detectors is 11 times the diameter of the item." The statement may or may not be accurate under certain subsurface conditions; thus, it must be verified by an actual instrument at the site. No revisions to the Work Plan are necessary.

Army Response: Concur. The ITS results are recorded by the field team leaders, and the UXOQCS documents ITS completion in the Daily QC Report. The Daily QC Reports will be presented in the KOA Clearance Report. As indicated in the NMED comment, no change to the Work Plan is necessary.

6. Section 3.5, Location Surveys & Mapping Plan, lines 14-16, page 3-5

Permittee Statement: "All grid corner stakes will be painted orange, yellow stakes will be used for line of sight, white stakes will be used for MRS boundaries, and red stakes (or pin flags, flagging, or marking paint) will be used to mark areas to be avoided due to hazardous conditions."

NMED Comment: The paint must not contain constituents that may interfere with confirmation sample analysis. No revisions to the Work Plan are necessary.

Army Response: Concur. Field staff will not use paint that contains constituents that may interfere with confirmation sample analysis. As indicated in the NMED comment, no change to Work Plan is necessary.

7. Section 3.12.5.1, Confirmation Soil Sampling Method, lines 24-26 and lines 36-37, page 3-25 and lines 10-11, page 3-26

Permittee Statement: "Samples will be collected from the bottom and sidewalls of each excavation. Each excavation will likely vary significantly in shape and size; therefore, a composite sample will be collected from at least every 100 linear feet of sidewall."

"A composite sample will be collected from the bottom of each excavation that is less than 100 feet by 100 feet (10,000 square feet)."

"Each sample will be comprised of nine subsamples randomly collected from within each sampling area."

NMED Comment: The analytical suite for confirmation soil sampling must include target analyte list (TAL) metals, semi-volatile organic compounds (SVOC), explosives, polychlorinated biphenyl (PCB), nitrate, cyanide, dioxins/furans and perchlorate. For areas where excavation exceeds two feet in depth, the sampling protocols used for the HWMU removal must be followed. For areas where the excavation is less than two feet in depth, nine subsamples to make up a composite sample are sufficient to characterize decision units of less than 1,000 square feet. For shallow excavations greater than 1,000 square feet, each composite sample must be comprised of a minimum of 50 subsamples and exceed a mass of one kilogram in accordance with Section 6.1 of Attachment 9 of the Permit and BPA Method 8330B, respectively. For both composite and incremental samples, the initial screening must compare the detected concentration multiplied by the number of subsamples to the compound-specific screening level. Revise the Work Plan accordingly.

Army Response: Concur. The analytical suite for confirmation soil sampling will include the list referenced in the NMED comment, and will additionally include VOCs. Section 3.12.5.1 lists each of the requested analyte groups.

Based on follow-up correspondence and a conference call with NMED held June 13, 2018, the Army understands that excavations greater than 2 feet in depth must be sampled in accordance with the HWMU removal sampling protocols per the NMED comment.

It is also understood that excavations less than 2 feet in depth will require a different sampling protocol than what is being used for the HWMU. For excavations less than 2 feet in depth, the Army has decided to switch from composite soil sampling to discrete soil sampling. Therefore, the Inner Fence Work Plan was revised to include a discrete soil sampling approach that the contractor believes the NMED will find adequate to meet the project objectives. Section 3.12.5 was revised to include discrete soil sampling protocols and frequencies that have been acceptable to the NMED at other sites in New Mexico. The proposed sampling frequencies are as follows: 1) one excavation bottom sample for every 400 square feet, and 2) one sidewall sample for every 20 feet of sidewall.

8. Section 3.12.5.1, Confirmation Soil Sampling Method, lines 24-26, lines 36-37, page 3-25 and lines 5-6, page 3-26.

Permittee Statement: "Samples will be collected from the bottom and sidewalls of each excavation. Each excavation will likely vary significantly in shape and size; therefore, a composite sample will be collected from at least every 100 linear feet of sidewall."

"A composite sample will be collected from the bottom of each excavation that is less than 100 feet by 100 feet (10,000 square feet)."

"Each sample area will consist of one discrete soil sample for volatile organic compounds (VOCs) (Method 8260B) and..."

NMED Comment: The Permittee proposes to collect a discrete sample at least every 100 linear feet of the sidewalls and 10,000 square feet of the bottom; however, the number of discrete sample is not sufficient to characterize either bottom or sidewalls of each decision unit. For VOC analysis, a discrete sidewall sample must be collected every twenty linear feet of the sidewalls and a discrete base sample must be collected every 400 square feet of the bottom. Revise the Work Plan accordingly.

Army Response: Concur. For excavations less than 2 feet in depth, discrete VOC samples will be collected at a rate of one per each 20 linear feet of sidewall and one per each 400 square feet of excavation bottom.

9. Section 3.13, Backfilling Excavations, lines 7-8, page 3-29

Permittee Statement: "All excavations created from excavation of anomalies, detonations, and access will be backfilled and restored to original grade."

NMED Comment: Clarify the source of the backfill (e.g., soil generated from the shifting operation that has been determined to be acceptable for use as backfill).

Army Response: Concur. Section 3.13 was revised as follows: "All excavations created from excavation of anomalies, detonations, and access will be backfilled with soil generated during the excavation that has been determined to be acceptable for reuse. Areas will be restored and graded to promote positive drainage."

10. Table 3-1, Type & Depth of MEC Removed

NMED Comment: The variety of recovered MEC items, from 20mm to a 2000-lb bomb, are listed in Table 3-1. The recovered MEC items may exhibit a large range of detection depths; however, Table 3-1 lists only one detection depth. In addition, the listed depths of "~< 2 feet" and "~< 4 feet" are confusing because they may mean anything less than 2 feet and 4 feet, respectively. Further, the Permittee must clarify whether the table includes or excludes recovery depths from the HWMU remediation area. Divide Table 3-1 into several groups by munition detection depth ranges in the revised Work Plan.

Army Response: Concur. Table 3-1 was revised to include a footnote that indicates the table excludes recovery depths from the HWMU remediation area.

Table 3-1 was separated into several groups by munition detection depth ranges.

11. Figure 3-1, Inner Fence Area

NMED Comment: If "HWMU-like" surface and subsurface conditions are identified at the outermost decision unit along the fence line depicted in Figure 3-1, the adjacent soils outside of the decision unit along the fence line must be investigated in the same manner, where practicable. Although the scope only focuses on the investigation and removal activities within the Inner Fence Area, the Permittee must

include a measure to address contaminated soils outside of the fenced area where contamination is detected. The same grid system (e.g., 100 feet by 100 feet) may be established along the fence line, adjacent to the outermost decision unit. Revise the Work Plan to address potential soil contamination outside of the Inner Fence Area.

Army Response: Concur. Section 3.12 was revised to indicate that if "HWMU-like" conditions are identified at the outermost decision unit along the fence line of the Inner Fence Area, then adjacent soils outside of the fence line will also undergo confirmation soil sampling.

12. Permittee's Response to Comment 2 of the Disapproval

Permittee Statement: "Appendix F of the WP was removed as indicated in the response above."

NMED Comment: The Permittee's statement was removed; however, this Work Plan may be developed based on the inappropriate direction stating that soil sampling should not be unnecessarily completed if receptor pathways are incomplete. The Work Plan must be revised to address all potential exposure pathways that were not previously addressed. It should be noted that simply removing an inappropriate statement from the text may not entirely comply with the NMED's directions. Revise the Work Plan as necessary.

Army Response: Concur. For areas of the Inner Fence, soil sampling results will be used to address all potential exposure pathways. The new Section 3.12.6 includes details of the exposure pathways that will be addressed.

13. Permittee's Response to Comment 7 of the Disapproval

Permittee Statement: "The schedule in Appendix C was revised to only include tasks related to the Inner Fence work. Also, the project schedule was moved into the main body of the work plan."

NMED Comment: Figure 2-2, Project Schedule, includes columns for "Task" and "CLIN"; however, they are not defined. The Permittee must either remove these columns from the figure or provide definitions in the revised Work Plan.

Army Response: Concur. The task and CLIN columns were deleted from the project schedule.

If you have questions or require further information, please call me at (505) 721-9770.

Sincerely,

PATTERSON.MAR
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Mark Patterson
BRAC Environmental Coordinator

Enclosures

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