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February 26, 2020

Base Realignment and Closure Division

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

RE: Disapproval, Final Work Plan Inner Fence Revision 2.0, Parcel 3
[Second] Response to Approval with Modifications, Fort Wingate Depot Activity
McKinley County, New Mexico, EPA ID# NM6213820974, HWB-FWDA-17-001

Dear Mr. Pierard:

This letter is in reply to the New Mexico Environment Department (NMED) Letter of Disapproval dated November 7, 2019, reference number HWM-FWDA-17-001, Final Work Plan Inner Fence Revision 2.0 dated October 15, 2019. 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. Permittee's Responses to NMED's Comment 2, dated September 18, 2018 and Comments 2 and 3, dated July 15, 2019

Permittee Statement: "Please see replacement pages 3-14 (Line 24) through 3-23 (Line 7), and associated Figure 3-4, for a revision to the plan that includes a demonstration that there is minimal potential contamination associated with low density areas and individual MEC items."

NMED Comment: The pertinent discussion is included in replacement pages 3-14 (Line 12) through 3-22 (Line 27) in the Work Plan. Ensure that references are accurate. No response required.

Army Response: Comment noted.

2. Section 3.7.10, Soil Sampling of Low-Density MEC Areas, Line 23, page 3-14

Permittee Statement: "Discrete locations will be sampled for explosives."

NMED Comment: Explain why Incremental Sampling Methodology (ISM) was not proposed for sampling of explosives at low-density MEC areas. ISM is likely a more appropriate sampling method at low-density MEC areas, if properly implemented. Comment 3 in NMED's Disapproval Final RCRA Facility Investigation Report Parcel 6 Revision 1.0, dated June 4, 2019 states, "[t]he NMED does not accept the inappropriate use of the incremental sampling method. NMED will only accept multi-incremental or ISM samples for explosives and metals in large-area surface releases with detonation or airborne distribution as the

contaminant release source." Evaluate whether ISM is a more appropriate sampling method at low-density MEC areas and provide an explanation in a response letter. If ISM is found to be more appropriate, provide replacement pages for all pertinent sections.

Army Response: The Army has evaluated whether incremental soil sampling may be a more appropriate sampling method than discrete soil sampling for the low-density MEC areas. Historically, the NMED has accepted incremental soil sampling for explosives and metals in surface releases from detonation or airborne distribution as the contaminant source. The low-density MEC areas of the Inner Fence are considered surface area releases from detonation or airborne distribution as the potential contaminant source. Therefore, it was determined that that incremental soil sampling is appropriate for low-density MEC areas and will be completed. Incremental soil sampling will be conducted in accordance with the Interstate Technology and Regulatory Council (ITRC) incremental soil sampling guidance (2012 including January 2020 Clarifications, or most current). Section 3.7.10 has been revised to include incremental soil sampling procedures and approaches.

3. Section 3.7.10.1, Soil Sampling Design, lines 36-38, page 3-14 and lines 3-7, page 3-15

Permittee Statement: "The inputs to the module assumed 8,000 potential sampling locations (i.e., the estimated number of MEC items potentially present) within the Inner Fence."

NMED Comment: All input parameters and supporting data for the Visual Sample Plan (VSP) "Item Sampling" module must be provided in the response letter. If input values are assumed, provide justification for the assumptions.

Army Response: Based on the switch to incremental soil sampling, a different VSP module is being utilized to determine the number of sampling units and the estimated number of MEC items within the Inner Fence is no longer an input. However, VSP inputs and assumptions for the new module have been prepared and are provided in the Section 3.7.10.1 replacement pages.

4. Section 3.7.10.1, Soil Sampling Design, lines 3-7, page 3-15

Permittee Statement: "VSP output determined collecting 59 soil samples from the potential 8,000 sampling locations would yield the desired confidence level (i.e., 95 percent confident that 95 percent of the 8,000 sampling locations are below SSLs), assuming that all sample results were below screening levels and cancer risks are less than or equal to 1.0E-05 and hazard equal to or less than 1.0."

NMED Comment: Demonstrate how 59 soil samples from 8,000 potential sampling locations (approximately 0.7 percent) will produce the desired confidence level. The number of samples does not appear to be sufficient. In addition, if 8,000 sampling locations are identified during the clearance activities, explain how 59 sampling locations are selected out of the 8,000 potential locations. Furthermore, discuss the actions that will be taken in a scenario where the sampling results exceed the screening levels. Provide replacement pages that include the demonstration and discussion.

Army Response: The estimated number of MEC items within the Inner Fence is no longer an input to the VSP model. The revised sampling design proposes incremental soil sampling, and the number of samples is based on the number of low-density MEC area

sampling units/grids. VSP inputs and assumptions for the revised sampling design are provided in the Section 3.7.10.1 replacement pages.

Section 3.7.10.1 replacement pages contain details of how sampling units/grids will be selected for sampling (i.e., each grid will be assigned a number and a random number generator will be used to select grids for sampling).

Section 3.7.10.1 replacement pages contain details of the action to be taken if sample results exceed the screening levels.

5. Section 3.7.10.1, Soil Sampling Design, lines 7-8, page 3-15

Permittee Statement: "Note, the number of MEC items (i.e., 8,000) present within the Inner Fence is estimated and subject to be refined as more information is obtained."

NMED Comment: The number of MEC items in low-density MEC areas is presumably estimated and refined from the MEC clearance activities conducted with the grid system presented in Figure 3-1, Inner Fence Area Grid Map. However, Figure 3-1 does not indicate which grids are considered as high or low density MEC areas. The Permittee must define what constitutes high and low density MEC areas in the revised Work Plan (e.g., the number of detected MEC items per grid). Provide replacement pages that include the explanation.

Army Response: Section 3.7.10 replacement pages have been revised to specify that low-density MEC areas are those areas/grids that exhibit subsurface conditions that allow for manual MEC removal. Areas/grids that require mechanical MEC removal due to safety concerns are considered high-density MEC areas.

6. Section 3.7.10.2, Sampling Procedures, Soil Sample Analyses, lines 28-29, page 3-16

Permittee Statement: "Each discrete soil sample will be analyzed for explosives (Method 8330B) and submitted to Agricultural Priority Pollutants Laboratory, Inc. for chemical analysis."

NMED Comment: In Section 3.12.5, *Confirmation Soil Sampling [of high-density MEC areas ("HWMU-like" areas)]*, lines 19-20, page 3-33, the Permittee states, "[e]ach excavation or grid will be sampled for the constituents listed in Section III.A.4 of the FWDA RCRA Permit." Section III.A.4 of the FWDA RCRA Permit requires chemical analysis of volatile organic compounds, semi-volatile organic compounds, metals, explosive compounds, perchlorate, nitrate, cyanide, PCBs, dioxins, furans, and any other hazardous constituents specified by NMED. The analytical suite for soil sampling of low-density MEC areas must be comparable to that of high-density MEC areas except an analysis for volatile organic compounds (VOCs). VOCs are unlikely to be present as a result of the activities associated with low-density MEC areas; therefore, VOC analysis is not required at low-density MEC areas. However, the Permittee must propose to collect samples for semi-volatile organic compounds, metals, explosive compounds, perchlorate, nitrate, cyanide, PCBs, dioxins, and furans or provide justification for a reduced analytical suite. Revise all pertinent sections of the Work Plan (e.g., Section 3.7.10.2) to include the provision and provide replacement pages.

Army Response: Section 3.7.10.2 (Soil Sample Analyses) replacement pages include the proposed analyte list for incremental soil sampling within low-density MEC areas of the Inner

Fence, which includes metals and explosive compounds. Additional information and rationale for the proposed analyte list has been added to Section 3.7.10.2.

7. Section 3.7.10.2, Sampling Procedures, Soil Sample Collection, lines 1-2, page 3-17

Permittee Statement: "Using a decontaminated spoon or trowel (or disposable tool), remove soil from a one square foot area at the discrete soil sample location until the sampling depth of 0.5 ft is reached.

NMED Comment: In Section 3.7.10.1, lines 16-19, page 3-15, the Permittee states, "[s]oil samples will be collected from the 6-inch interval directly below a MEC where the highest likelihood of residual contamination would be found (e.g., for a MEC items recovered at 6 inches below ground surface, the soil sample would be collected from 6-12 inches below ground surface)." The Permittee's statement regarding the sampling procedures does not follow the procedure described in Section 3.7.10.1. Revise the Work Plan for accuracy and provide replacement pages.

Army Response: Comment noted. Procedures for discrete soil sampling have been removed from Section 3.7.10.2 and replaced with incremental soil sampling procedures.

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

Sincerely,

Mark Patterson
BRAC Environmental Coordinator

Enclosures

CF:

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