



DEPARTMENT OF THE ARMY
FORT WINGATE DEPOT ACTIVITY
P.O. BOX 268
FORT WINGATE, NM 87316

November 27, 2017

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: Army's Response to Comments, New Mexico Environmental Department
Disapproval Letter dated August 30, 2017, Parcel 3 Final Work Plan Inner Fence.

Dear Mr. Kieling:

This letter is in response to the New Mexico Environmental Department (NMED) Letter of Disapproval dated August 30, 2017, reference number HWB-FWDA-17-001, Final Work Plan Inner Fence, Parcel 3, dated August 30, 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:

GENERAL COMMENTS

1. Work Plan Organization

NMED Comment: The Permittee has provided a document that is difficult to review. The organization of the document is inconsistent. For example Table 2-1 and Figure 2-1 are located at the end of Section 2, whereas Table 4-1 is embedded in the text of Section 4 and all site maps are located in an appendix. For all tables, either locate the tables at the end of their section or, preferably, in a "Tables" section at end of report, but before the appendices. For all figures, which includes site maps, either locate the figures at end of their respective sections or, preferably, in a "Figures" section at the end of the report, but before the appendices. The tables and figures located at the end of the sections either contain page numbers that are out of sequence with the rest of the section or do not contain page numbers at all. Include appropriate page numbering on all tables and figures.

Also, the Work Plan includes sections and appendices that are not needed or required. Inclusion of these sections and appendices requires NMED to review and provide comments on each of them, thereby significantly slowing the review process. Removal of these types of sections and appendices will allow NMED to provide more rapid review of documents. The extraneous sections and appendices include:

Section	Suggestion
Section 5: Explosives Management Plan	NMED does not review or approve explosive management plans. Remove from Plan. Specific procedures to be used at

	Parcel 3 must be summarized in the text of the Work Plan.
Section 6: Environmental Protection Plan	NMED does not review or approve environmental protection plans. Remove from Plan. Procedures to be used at Parcel 3, such as those for Investigation Derived Waste management, must be described in the document text.
Section 7: Property Management Plan	If not required for site, remove from Plan.
Section 8: Interim Holding Facility Siting Plan for Chemical Warfare Materiel	If not required for site, remove from Plan.
Section 9: Physical Security Plan for Recovered Chemical Warfare Materiel	If not required for site, remove from Plan.
Appendix D: Accident Prevention Plan	If submitted under separate cover, remove from Plan.
Appendix F: Uniform Federal Policy - Quality Assurance Project Plan	QAPPs are not typically project specific and NMED does not review QAPPs. Detailed methods and procedures to be used at Parcel 3 must be provided in the "Field Investigation Plan" or "Quality Control Plan" sections of the text.
Appendix G: Explosives Safety Submission	If submitted under separate cover, remove from Plan.

Revise the Plan to remove unnecessary sections and appendices, as well as to include detailed descriptions within the text of all methods and procedures to be used during the investigation. Also, organize the tables and figures in the revised document in a consistent manner as detailed above.

Army Response: Table 4-1 was moved to the end of Section 4 to maintain consistency throughout the document. The maps in Appendix B were moved to the end of the section when first introduced. Appendix B was deleted. All tables/figures were moved to the end of the appropriate section and contain a unique table or figure number. Moving the tables/figures to end of sections has added consistency and alleviates possible confusion as to where tables/figures can be found. Based on the NMED suggestions regarding WP sections and appendices, the following sections/appendices were removed from the WP: Section 5: Explosives Management Plan, Section 6: Environmental Protection Plan, Section 7: Property Management Plan, Section 8: Interim Holding Facility Plan Siting Plan, Appendix D: APP, Appendix F: UFP-QAPP, and Appendix G: Explosives Safety Submission.

2. Nature and Extent of Contamination, Appendix F, UFP-QAPP, Attachment 1, Meeting Notes, p 2

Permittee Statement: "Mark Patterson noted that soil sampling should not be unnecessarily completed if receptor pathways are incomplete (i.e., the residential exposure horizon does not extend below 10 feet)."

NMED Comment: This direction is not appropriate. An integral part of all site investigations is the requirement to define the nature and extent of contamination at the

site. Section VII.H.I.b, RCRA Facility Investigation Work Plan Requirements, of the FWDA RCRA Permit states, “[t]he RFI Work Plan shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of contamination and the potential pathways of contaminant releases to the air, soil, surface water, and ground water.” Whether receptor pathways are complete or not, the nature and extent of contamination at the site must be defined and all potential exposure pathways must be addressed.

Army Response: Appendix F of the WP was removed as indicated in the response above.

SPECIFIC COMMENTS

3. Section 3.1, Overall Approach to Munitions Response Activities, p 3-2

Permittee Statement: “MEC (regardless of size) and metallic debris measuring 1.5 inches by 3 inches or larger will be removed from the surface and subsurface by manual digging of anomalies IAW EM 385-1-97 to depth of detection.”

NMED Comment: Depth of detection is not defined. Provide the effective depth of detection for various sized objects (e.g., 1.5"x3" objects, 40mm mortars, 75mm mortars, etc.) in the revised Plan.

Army Response: Section 3.1 was revised as follows: “...to depth of detection. *Depth of detection varies depending on the size and orientation of the subsurface anomaly. In general, the depth of detection utilizing handheld detectors is 11 times the diameter of that item. Expected MEC types and approximate geophysical detection depths are shown in Table 3-1.* UXO teams will survey...”

The following table was added to present the type of MEC expected, maximum depth of MEC recovered during investigations, and approximate geophysical detection depths.

MRS	MEC Recovered	Maximum Depth of MEC Recovered During Previous Site Investigations (bgs)	Approximate Geophysical Detection Depth (bgs)
KOA Inner Fence Area	20mm, 37/40mm, 50mm, 57mm, 60mm, 75/76mm, 81mm, 90mm, 102mm, 105mm, 120mm, 155mm, 3.5", M83, Fuses, bomb live unit (BLU) 3 & 4, 5-inch rockets, 2.75-inch rockets and 3-inch rockets and AN-	~ < 2 feet	~ < 4 feet

	M66A2, 2000-lb HE Bombs		
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Notes:
bgs = below ground surface
KOA = Kickout Area
MEC = munitions and explosives of concern
mm = millimeter
MRS = munitions response site

4. Section 3.1, Overall Approach to Munitions Response Activities, p 3-2

Permittee Statement: “Based on previous activities and geophysical surveys, it is likely that some portions of the Inner Fence Area adjacent to the HWMU boundary will exhibit subsurface conditions that are “HWMU-like” (i.e., high concentration of WMM at depths exceeding the limit of detection for analog geophysical instruments). Such areas will require mechanized MEC procedures in accordance with EM 385-1-97 instead of the analog survey and removal procedures. Any “HWMU-like” areas will be identified in coordination with the Army, and subsurface clearance of these areas will proceed as directed in the Approved Final HWMU Work Plan, Revision 1 (AECOM 2017). Sampling and analysis requirements for any “HWMU-like” areas are presented in the Uniform Federal Policy - Quality Assurance Project Plan (UFP-QAPP) (Appendix F) for the HWMU Removal Work Plan Amendment.”

NMED Comment: The Plan provides no details on how “HWMU-like” areas will be identified if the WMM are at depths exceeding the limit of detection for analog geophysical instruments. The Plan also provides no details on clearance of “HWMU-like” areas. Reference to another work plan or a QAPP is not appropriate. Provide detailed descriptions of all work to be performed in the Inner Fence Area in the text of the Plan. Revise the Plan to include detailed descriptions of how “HWMU-like” areas within the Inner Fence Area will be cleared.

Army Response: Subsequent to the NMED review of the Inner Fence WP, the NMED and the Fort Wingate project team have had additional discussions regarding contaminated areas beyond the HWMU boundary within the Inner Fence Area (i.e., HWMU-like areas). As stated in a letter dated 2 November 2017 from NMED to BRAC/USACE outlining these additional discussions, NMED agreed that the conditions, sampling protocols, and cleanup criteria stated in the NMED-approved HWMU WP apply to the removal of contaminated soils beyond the HWMU boundary within the Inner Fence Area. Therefore, Section 3.12 of the Inner Fence WP has been revised to include details from the NMED-approved HWMU WP to describe how the clearance of “HWMU-like” areas will be conducted.

The WP was revised to remove text indicating that “HWMU-like” areas contain high concentrations of WMM at depths exceeding the limits of detection for analog geophysical instruments. The presence of “HWMU-like” material below depths of detection is not anticipated because these areas will likely exhibit strong subsurface signatures and/or be visibly identifiable. Section 3.1 was revised to clarify the description of “HWMU-like” as follows: “...it is likely that some portions of the Inner Fence Area adjacent to the HWMU boundary will exhibit subsurface conditions that are “HWMU-like” (i.e., contaminated areas that contain a sufficient number of anomalies such that excavation and processing the

material through a processing plant would be more efficient and safer than manual excavation). Such areas will require mechanized MEC procedures in accordance with EM 385-1-97 instead of analog survey and manual excavation removal procedures.”

Section 3.1 was also revised to introduce the NMED clarification letter as follows: “In a letter dated November 2, 2017, the NMED agreed that the conditions, sampling protocols, and cleanup criteria specified in NMED-approved Final HWMU Work Plan (URS 2013) apply to the removal of contaminated soils that extend beyond the HWMU boundary (i.e., HWMU-like areas) within the Inner Fence Area. Contaminated areas requiring mechanical excavation (e.g., HWMU-like areas) as described above will be cleared in accordance with the NMED letter addressing contaminated soils beyond the HWMU boundary within the Inner Fence Area (**Appendix A**). In accordance with the NMED-provided letter, subsurface clearance of these areas will proceed as directed in the Approved Final HWMU Work Plan (URS 2013). Details of how “HWMU-like” areas within the Inner Fence Area will be cleared and sampled are provided in **Section 3.12**.”

5. Section 3.10.1, Munitions and Explosives of Concern Disposal, p 3-16

Permittee Statement: “Detailed MEC disposal procedures are found in the MEC Disposal SOP.”

NMED Comment: Descriptions of all methods and procedures must be included in the Report text. References to an SOP is not acceptable. Provide detailed descriptions of all work to be performed in the Inner Fence Area in the text of the Plan. Revise the Plan to include detailed descriptions of MEC disposal procedures that will be used within the Inner Fence Area.

Army Response: Section 3.10.1 was revised as follows: “Detailed MEC demolition procedures are detailed in **Section 3.10.5**.”

A description of MEC demolition was added to Section 3.10.5.

6. Section 3.12, Soil Sampling for Munitions Constituents, p 3-18

Permittee Statement: “Munitions constituents (MC) sampling will not be conducted under the WP for this task. Therefore, no UFP-QAPP outlining MC sampling requirement is required for this work. However, if “HWMU-like” areas are identified and approved for removal by mechanized MEC procedures, then confirmation soil sampling will be completed IA W the HWMU Work Plan Amendment. A copy of the UFP-QAPP for the HWMU removal is included in Appendix F.”

NMED Comment: The Plan provides no details on clearance of “HWMU-like” areas. Reference to another work plan or a QAPP is not appropriate. The Permittee must provide detailed descriptions of all work to be performed in the Inner Fence Area in the text of the Plan. Revise the Plan to include detailed descriptions of how “HWMU-like” areas within the Inner Fence Area will be cleared, as well as how confirmation samples for munition-related contamination will be collected and analyzed.

Army Response: As discussed above, the clearance of contaminated soils that extend beyond the HWMU boundary within the Inner Fence Area (i.e., "HWMU-like" material) will proceed as described in the NMED clarification letter dated 2 November 2017. Therefore, the Inner Fence WP has been revised to include details from the NMED-approved HWMU WP to describe how the clearance of "HWMU-like" areas will be conducted, including how confirmation samples will be collected and analyzed. Details for the clearance of "HWMU-like" areas were included in Section 3.12.

7. Appendix C, Project Schedule.

NMED Comment: The provided schedule is overly complicated and difficult to interpret. In the revised Plan, provide a simplified project schedule indicating when the field work will begin and end, as well as when report documenting the field work and results will be provided to NMED.

Army Response: 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.

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

CF:

Media

D Cobrain, NMED HWB
B Wear, NMED HWB
M Suzuki, NMED HWB
M Patterson, FWDA BEC
S Khan, USACE SWT