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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

March 9, 2016

Mark Patterson
FWDA, BRAC Coordinator
P.O. Box 93
Ravenna, OH 44266

Steve Smith
USACE FWDA Program Manager
CESWF-PEC-EF
819 Taylor Street, Room 3A12
Fort Worth, TX 76102

**RE: DISAPPROVAL
FINAL RCRA FACILITY INVESTIGATION WORK PLAN PARCEL 20
FORT WINGATE DEPOT ACTIVITY
MCKINLEY COUNTY, NEW MEXICO
EPA ID# NM6213820974
HWB-FWDA-15-015**

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) has reviewed the *Final RCRA Facility Investigation Work Plan Parcel 20* (Plan), dated May 22, 2015 and received June 1, 2015, for Fort Wingate Depot Activity (Permittee). NMED hereby issues this Disapproval. The Permittee must address the following comments.

General Comments:

1. Appendices

NMED Comment: The Permittee has provided a document that is difficult to review. The Work Plan includes appendices that are not needed or required. Inclusion of these appendices requires NMED to review and provide comments on each of them, thereby significantly slowing the review process. Removal of these types of appendices will allow NMED to provide more rapid review of documents. The extraneous appendices and suggestions include:

Appendix and Title	Suggestion
Appendix A: Historical Information Document Summary	Submit as stand-alone reference document
Appendix D: Uniform Federal Policy for Quality Assurance Project Plan/SOPs – not project specific	QAPPs are not typically project specific. Detailed methods and procedures to be used at Parcel 20 must be provided in the “Investigation Methods” section of the text.
Appendix E: Accident Prevention Plan/ Site Safety and Health Plan	NMED does not review or approve health and safety plans. While the Permittee is required to have a plan, it should be removed from the Work Plan.
Appendix F: Explosive Management Plan	NMED does not review or approve explosive management plans...should be removed from Work Plan. Specific procedures to be used at Parcel 20 must be summarized in the text of the Work Plan.
Appendix G: Explosive Siting Plan	NMED does not review or approve explosive siting plans...should be removed from Work Plan. Specific procedures to be used at Parcel 20 must be summarized in the text of the Work Plan.
Appendix H: Environmental Protection Plan	NMED does not review or approve environmental protection plans...should be removed from Work Plan. Procedures to be used at Parcel 20, such as those for Investigation Derived Waste management, must be described in the document text.
Appendix I: Geophysical Quality Control Procedures	NMED does not review or approve geophysical quality control procedures...should be removed from Work Plan. Details of activities to be performed in the field at Parcel 20 must be provided in the text of the Work Plan.

Many problems exist should the appendices listed above remain in the Plan. Specific problems with individual appendices are provided in the specific comments that follow. A general problem with the appendices is that many do not exist. For instance, the hard copy version of Appendix B’s title page states, “Appendix B will be submitted under a separate cover”, while the electronic version of Appendix B’s title page states, “Included on Compact Disc”. The same issue applies to Appendix E. All listed appendices must be included in the Plan. NMED is unable to complete its review of the Plan without the appendices included.

Also, many of the appendices contain internal appendices that are labeled similarly to the Plan appendices. For instance, Appendix A contains an Appendix A, Appendix B, and Appendix C. This is confusing for the reviewer, as well as for cross-referencing comments. Revise the Plan to provide a logical naming system for appendices within the Plan appendices, e.g., Appendix A.1, Appendix A.2, etc.

In addition, many of the appendices have a variety of reports, data, SOPs, etc. combined together with no table of contents, pagination structure, or references to provide organization. As an example, Appendix B, Excerpts from Parcel 20, SWMU 38 Historical Documents and Parcel 20 Historical Soil and Sediment Data Summary Table, of Appendix A, Historical Information Summary Document, contains 321 pages of miscellaneous reports, field notes, and data with no organization. Revise the Plan to either remove many of the unnecessary appendices or include organizational structure, tables of contents, pagination, and references for all appendices.

Should the Permittee remove the appendices listed above, many of the comments below will apply to the separate submission of the reports in the appendices, but will not need to be addressed in the revision of this Work Plan.

2. Background Metal Concentrations

NMED Comment: The Plan is not clear regarding the determination of background values for metals that can be used at Parcel 20 and SWMU 38. The discussion of Metals Background in Section 4.3.1 (Soil Sampling) of the RFI Work Plan identifies three sources of information on background levels for metals: Soil Background Study and Data Evaluation Report Version 2 authored by Shaw Environmental, Inc. (Shaw) and referenced to 2010, NMED's Evaluation of Background Levels for Arsenic in Soil dated December 18, 2013, and a "2012 background study." Section 5.2.2.3, Soil Background Study and Data Evaluation Report, 2010, of the Plan provides additional information on soil background values. This discussion references the Phase 2 Soil Background Report dated February 5, 2013 and the NMED document mentioned in Section 4.3.1. Only two of these documents, Shaw's Soil Background Study and Data Evaluation Report dated 2010 and NMED's Evaluation of Background Levels for Arsenic in Soil dated December 18, 2013 are listed in Section 7.0, References, of the Plan. Thus, the sources of background information to be used in the upcoming RFI are unclear. In addition, neither Section 4.3.1 nor Section 5.2.2.3 includes a demonstration that the areas from which background samples were collected are appropriate for establishing background values for Parcel 20 and SWMU 38. Review the information sources cited for information on background values in Sections 4.3.1 and 5.2.2.3. Based on the results of the review, revise these two sections for accuracy and consistency. Provide exact titles for each identified information source and ensure each cited source is listed in Section 7.0. In addition, revise Section 5.2.2.3 to include information demonstrating that the cited information sources are appropriate sources of background values for use at Parcel 20 and SWMU 38.

3. Sampling Methods

NMED Comment: The main text of the Plan does not provide a detailed description of sampling procedures and sample analysis, including data validation. The majority of the information related to sampling procedures and sampling analysis is provided in Appendix D, Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP), worksheets and Appendices A and B of the UFP-QAPP.

For example, Section 4.4.10 of the main text addresses field documentation. The discussion lists some of the types of information to be documented during the investigation of SWMU 38 and provides a general reference to Appendix A, Field SOPs, of the UFP-QAPP. Appendix A of the UFP-QAPP indicates that Worksheet #14 & 16, MC SOP 5, and MC SOP 6 provide additional details regarding in-field documentation. However, Section 4.4.10 does not reference any of these sources of information.

Revise Sections 4 and 5 to provide detailed descriptions of proposed sampling procedures and sample analysis. The UFP-QAPP worksheets as well as the field and laboratory SOPs related to these subject areas may be referenced but cannot substitute for the descriptions.

4. Data Management Plan

NMED Comment: The main text of the Plan does not contain or reference a Data Management Plan. However, the Data Management Plan is provided in UFP-QAPP as part of Worksheet #14 & 16. A summary of the description of the Data Management Plan in Worksheet #14 & 16 must be included in the main text of the Plan. The summary may also reference Worksheet #14 & 16 for additional details regarding the Data Management Plan but cannot be used to substitute for the description. Revise the Plan to address this issue.

Specific Comments:

5. Section 4.3.1, Risk/Hazard-Based Screening Level Hierarchy, page 4-3

Permittee's Statement: "If an analyte does not have an NMED SSL or USEPA RSL, appropriate surrogates may be used with NMED approval."

NMED Comment: Additional information regarding the risk-based screening of analytes without a NMED SSL or a USEPA RSL must be provided in the RFI Work Plan. Specifically, the procedures that will be followed in identifying suitable surrogates and submitting the surrogate information to NMED for approval should be provided. Revise the RFI Work Plan to identify those analytes which may require identification of a suitable surrogate for risk-based screening; discuss the approach that will be used to identify suitable surrogates; and describe how the identified surrogates will be provided to NMED for review and approval.

6. Section 4.3.2, Geophysical Anomaly Investigation, 4. Specification of the Domain of the Decision, Bullet 2, page 4-6

Permittee's Statement: "In FTR1, the depth of the intrusive investigation will be sufficient to resolve anomalies, but will not exceed a maximum vertical extent of 4 feet bgs for hand dug anomalies and 12-ft for backhoe-dug anomalies."

NMED Comment: The Plan does not specify how these depths were determined. Explain how it was determined that the vertical extent of hand-dug anomalies should not exceed 4 feet bgs and vertical extent of backhoe-dug anomalies should not exceed 12 feet bgs.

7. Section 4.3.2, Geophysical Anomaly Investigation, 4. Specification of the Domain of the Decision, Bullets 3 and 4, page 4-6

Permittee's Statement: "The maximum vertical extent of intrusive investigation in the 38-acre investigation area is the depth of detection for the Schonstedt GA-52 or similar instrument."

NMED Comment: This same information is also provided in Worksheet #11 of the UFP-QAPP. It does not appear that the manufacturer's specifications for the Schonstedt GA-52 or similar instrument are provided in the Plan. Revise these sections to include an estimate of the maximum vertical extent of the intrusive investigations to be conducted in the 38-acre investigation area and the Arroyo Investigation Area. NMED acknowledges that the estimates are subject to change based on final selection of the portable magnetometer used in these investigations and that the maximum depth of the intrusive investigations will not exceed 4 feet bgs. In addition, ensure that the manufacturer's specifications for the portable magnetometer used in all intrusive investigations at SWMU 38 are included in the RFI Report.

8. Section 4.3.2, Geophysical Anomaly Investigation, 7. Optimization of Design for Obtaining Data, Bullet 1, page 4-7

Permittee's Statements: "A total of up to 1,600 linear feet will be excavated from ten trenches to determine the nature of the large central anomaly. The trenches will be 18-inches wide and will be excavated to a maximum depth of five feet."

NMED Comment: This same information is provided in worksheet #11 of the UFP-QAPP and similar information is listed in Table ES-1 (Table ES-1 indicates 9 trenches will be used). An additional discussion on trenching, which indicates ten trenches will be used, is provided in Section 4.4.5. It is not clear how the nominal specifications for the investigation trenches cited in the Plan were determined. Review Table ES-1 and, if appropriate, revise the table to indicate ten trenches will be used. In addition, revise the Plan to describe how the nominal dimensions of the investigative trenches were determined.

9. Section 4.4.7, Anomaly Avoidance Procedures, pages 4-11 through 4-22

NMED Comment: The discussion in Section 4.4.7 indicates that anomalies in the Arroyo Investigation Area and the 38-acre investigation area will be identified using a handheld magnetometer. Section 4.4.16 also states that a handheld magnetometer will be used to detect surface munitions and explosives of concern (MEC) and subsurface anomalies in these areas. A discussion demonstrating that this technology is appropriate for the task is not provided. Revise the Plan to demonstrate that a handheld magnetometer is appropriate for identifying

anomalies in these two investigation areas. The provided discussion should be brief and focus on the technology's probability of detection versus the possibility of false alarms as compared to other applicable technologies.

10. Section 4.4.12, Backfilling Excavations, page 4-25

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

NMED Comment: The primary source of the backfill material is not specified. Section 5.4.1 does state, "[i]f borrow material is required, it will be taken from the FWDA designated area." But, neither the designated area, nor the suitability of the material to be utilized, is described in the Plan. Revise Section 4.4.12 to identify the source of the backfill material to be used to fill in the excavations created during the field activities associated with this project. Describe how it was or will be determined that the material is suitable for use as backfill.

11. Section 4.4.15, Investigation Derived Waste Disposal, third bullet, page 4-26

Permittee's Statement: "Used, non-decontaminated disposable sampling equipment or PPE will be placed in polyethylene trash bags and treated as general refuse which will be placed in suitable facility trash receptacles on a daily basis."

NMED Comment: The Permittee does not indicate how it will be determined that used, non-decontaminated disposable sampling equipment and PPE is suitable for disposal as general refuse. Revise the Plan to include a detailed description of characterization techniques to be utilized to determine if used, non-decontaminated disposable sampling equipment is suitable for disposal as general refuse.

12. Section 5.1.4, Waste Characterizations and Contaminants of Potential Concern, page 2-2

Permittee's Statement: "Based on the operational history, the COPCs for SWMU 38 are explosives, RCRA 8 metals, perchlorate, and SVOCs."

NMED Comment: The identification of contaminants of potential concern (COPCs) is also discussed in Section 5.3.1. The information provided in the Plan implies that the COPCs for SWMU 38 were determined only through examination of its operational history. However, the data collected during previous investigations (Section 5.2 of the Plan), as well as any data gaps associated with those investigations, must also be considered when identifying COPCs. Revise the relevant sections of the Plan to identify and discuss all types of information considered in identifying the COPCs for SWMU 38. If the selection process was limited to examination and evaluation of the operational history of the SWMU, revise the Plan to state that, at a minimum, the operating history, historical data collected at the site, and the data gaps in the historical data will be used to identify COPCs for the SWMU 38 investigation.

13. Section 5.2.2, Sampling Data, page 5-11

Permittee's Statement: "Potential cumulative risk/hazard was not assessed for previous data; however, the historical data will be included in the evaluation of the risks and hazards in the RFI report."

NMED Comment: It is not clear that the historical data have been evaluated for use in a risk assessment. Revise the discussion in Section 5.2.2 to describe the evaluation performed on historical data to determine if the data is acceptable for use and that it can be combined with newly collected data and used in the evaluation of risks and hazards present at SWMU 38. If the evaluation of historical data was performed using procedures described in the UFP-QAPP, ensure that Section 5.2.2 includes an adequate description of the evaluation.

14. Section 5.2.3.3, Potential Receptors, page 5-14

Permittee's Statement: "Ecologically, FWDA provides habitat for antelope, prairie dogs, rattlesnakes, field mice, various insects and animals."

NMED Comment: The Permittee did not discuss birds as potential ecological receptors. Revise the discussion in Section 5.2.3.3 to explain why birds are not considered potential ecological receptors at Parcel 20 and SWMU 38 or include birds as potential receptors. Ensure the discussion considers the potential for birds feeding at the site.

15. Section 5.4.1, Discrete Surface and Subsurface Soil Sampling, pages 5-17 through 5-20

NMED Comment: Additional information regarding discrete soil sampling is provided in Worksheet #17 of the UFP-QAPP. However, Section 5.4.1 does not include a reference to Worksheet #17. Revise Section 5.4.1 to include a description of the proposed discrete soil sampling to be performed at SWMU 38.

16. Section 5.4.2, Multi-Incremental Soil Sampling, pages 5-21 through 5-27

NMED Comment: Additional information regarding multi-incremental soil sampling is provided in Worksheet #17 of the UFP-QAPP. However, Section 5.4.2 does not include a reference to Worksheet #17. Revise Section 5.4.2 to include a description of the proposed multi-incremental soil sampling to be performed at SWMU 38.

17. Section 5.4.2.2, Composite Sampling at DUs, page 5-26

Permittee's Statement: "Composite samples will be collected from all 45 DUs using a decontaminated hand tool. The composite sample will be comprised of 6 subsamples, collected from within the DU. The sample will be analyzed for SVOCs (Table 5-3). These samples will not be collected or processed in the same manner as the ISM samples."

NMED Comment: Worksheet #17 of the UFP-QAPP provides the sample design and rationale for the discrete and ISM samples to be collected within SWMU 38. A similar discussion is not provided for the composite samples. Revise Section 5.4.2.2 to include a discussion of the sampling design and rationale for collecting and analyzing composite samples within SWMU 38.

18. Section 6.0, Project Management, pages 6-1 through 6-2

NMED Comment: The discussion provided in Section 6.0 includes a project schedule and references to several appendices of the Plan including: Appendix D (UFP-QAPP), Appendix E (Accident Prevention Plan/Site Safety and Health Plan), and Appendix H (Waste Management Plan, Hazardous Waste Contingency Plan, and the Environmental Protection Plan). However, no discussion of the management structure, the lines of communication among project participants (i.e., the Army, its contractors, and subcontractors), and the qualifications of project staff and their project responsibilities is provided in Section 6.0. Much of the information missing from Section 6.0 is provided in Worksheets #3&5, #4, 7 & 8, #6, and Figure 2-1 in the UFP-QAPP. The information presented in the UFP-QAPP but not presented in Section 6.0 must be summarized within Section 6.0. References to specific spreadsheets and figures in the UFP-QAPP may be included in the Section 6.0 discussion. Revise Section 6.0 to include a summary of the project organization, staff qualifications, and communication pathway information contained in the UFP-QAPP.

19. Section 6.2, Reporting Scheduling, page 6-1

NMED Comment: A schedule for the project is provided in Section 6.2. A reference to the complete, detailed project schedule in Appendix L of the Plan is also provided. The schedule presented in Section 6.2 is an abbreviated version of the schedule found in Worksheet #14&16 of the UFP-QAPP. Revise the schedule presented in Section 6.2 to include all relevant information provided in the schedule presented in Worksheet #14&16 of the UFP-QAPP that pertains to implementation of the Plan including report submittal. Ensure that the reference to the detailed schedule in Appendix L is retained in the text.

20. Appendix A, Historical Information Summary Document, Section 3.2.1.5, Further Site Characterization of Functional Test Range 1, bullet 2, page 3-9

Permittee's Statement: "In the northwestern area of FTR 1, two metals exceeded background levels for soil and five metals exceeded background levels for sediment. Based on these results, it was concluded that there was no unacceptable threat to human health."

NMED Comment: Exceedances of background levels do not provide indication that there is no unacceptable threat to human health. If the concentrations were below soil screening levels for the residential scenario, state so. Otherwise, provide justification for the conclusion.

21. Appendix A, Historical Information Summary Document, Section 3.2.1.5, Further Site Characterization of Functional Test Range 1, pages 3-10 through 3-11

Permittee's Statement: "In the central area of FTR 1, seven metals and one explosive constituent exceeded background levels for soil and 12 metals exceeded background levels for sediment. Arsenic exceeded the preliminary remediation goal for soil; however, it was concluded that there was no unacceptable threat to human health."

NMED Comment: Exceedances of background levels and preliminary remediation goals do not provide indication that there is no unacceptable threat to human health. If the concentrations were below soil screening levels for the residential scenario, state so. Otherwise, provide justification for the conclusion. In addition, there is no naturally occurring concentration for explosive compounds. Revise the statement accordingly.

22. Appendix A, Historical Information Summary Document, Appendix A, Site Photographs, Photo No. 23

NMED Comment: The description for Photo 23 states "burn area – 2 football fields 300 square feet". The area of two football fields is equal to 96,000 square feet. Resolve this discrepancy.

23. Appendix A, Historical Information Summary Document, Appendix B, Excerpts from Parcel 20, SWMU 38 Historical Documents and Parcel 20 Historical Soil and Sediment Data Summary Table

NMED Comment: Appendix B of Appendix A within the hard copy does not contain any pages, nor does the title page state that the Appendix can be found in the electronic copy. Appendix B of Appendix A of the electronic copy contains approximately 330 pages of information. There appears to be a variety of excerpts from reports and data, including 41 pages of daily field QC reports and 203 pages of sample analysis data. There does not appear to be any rationale for the organization or presentation of this information, nor any reason provided for its inclusion.

Revise the Plan to include a reference in the hard copy to the data found on the electronic copy. In addition, provide a table of contents for Appendix B of Appendix A that details the information included in the appendix and the purpose for its inclusion. Also, remove the 203 pages of sample analysis data and, instead, provide these data in a Microsoft Excel spreadsheet. Provide a detailed map showing the locations where these samples were collected. If there is not a specific purpose for including this information, remove it from the Plan.

24. Appendix A, Historical Information Summary Document, Appendix C, Aerial Photographs

NMED Comment: Appendix C of Appendix A contains many aerial photographs that are presented upside down. Revise the document to provide photographs in the appropriate orientation.

25. Appendix D, Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP), Appendix A, Field SOPs

NMED Comment: Appendix A of Appendix D within the hard copy does not contain any pages or even a cover page, nor any indication that the Appendix can be found in the electronic copy. There is no indication of where Appendix A of Appendix D begins within the Plan. The Appendix transitions from the References list (page 114 of 111, which should also be corrected) to a USACE report on Incremental Sampling Methodology. Following the USACE report, the Permittee includes a 417 page Interstate Technology and Regulatory Council Incremental Sampling Methodology guidance document. Reports and guidance documents do not belong in an appendix designated for standard operating procedures (SOPs). The Permittee must remove these large documents from the SOP section and provide detailed descriptions in the Plan text of the work that is proposed for Parcel 20. Revise the document provide the necessary descriptions of proposed work and information on where to find the appendices in the hard copy, cover pages to indicate where the appendices start in the electronic copy, accurate and detailed descriptions of the actual incremental sampling work to be performed in Parcel 20, and a table of contents and pagination structure for the SOPs.

26. Appendix D, Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP), Appendix D, Laboratory Quality Assurance Management Plans, SOPs and Certifications

NMED Comment: Appendix B of Appendix D within the hard copy does not contain any pages or even a cover page, nor any indication that the Appendix can be found in the electronic copy. There is no indication of where Appendix B of Appendix D begins within the Plan. The Appendix transitions from PIKA Arcadis SOPs directly into Laboratory certifications and SOPs. It appears that no quality assurance management plans are included in the appendix. This is another appendix of an appendix containing a large amount of documentation with no defined organization or structure.

The Permittee must submit a revised Plan to address all comments contained in this Disapproval. In addition, the Permittee must include a response letter that details where each comment was addressed, cross-referencing NMED's numbered comments. The Permittee must also submit an electronic redline-strikeout version of the revised Plan. The revised Plan must be submitted on or before **August 19, 2016**.

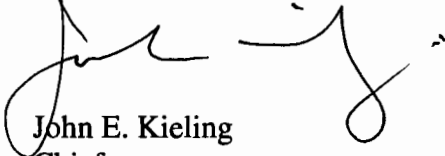
Messrs. Patterson and Smith

March 9, 2016

Page 11 of 11

If you have any questions regarding this letter, please contact Ben Wear at (505) 476-6041.

Sincerely,



John E. Kieling
Chief

Hazardous Waste Bureau

cc: Dave Cobrain, NMED, HWB
Neelam Dhawan, NMED, HWB
Ben Wear, NMED, HWB
Chuck Hendrickson, EPA-6PD-N
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