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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

July 6, 2007

Mark Patterson
BRAC Environmental Director
Department of Army
Fort Wingate Depot Activity
PO Box 268
Fort Wingate, NM 87316

**RE: NOTICE OF DISAPPROVAL
DRAFT INTERIM FACILITY-WIDE GROUNDWATER MONITORING PLAN
FORT WINGATE DEPOT ACTIVITY, EPA ID # NM6213820974
FWDA-07-002**

Dear Mr. Patterson:

The New Mexico Environment Department (NMED) has completed its review of the U.S. Department of the Army's (the Permittee) *Interim Facility-Wide Ground Water Monitoring Plan Draft* (Interim Plan), dated January 19, 2007. This submittal is a requirement of Section V.A of the *Fort Wingate Depot Activity RCRA Permit* (RCRA Permit). NMED is hereby issuing this Notice of Disapproval (NOD). The Permittee must address all comments contained in this NOD and submit a revised Interim Plan (revised plan). The deficiencies of the Interim Plan are outlined below.

Comment 1

The purpose of the Interim Plan is to provide specific details of the proposed interim monitoring activities that will be conducted prior to implementation of a long-term monitoring plan. The Interim Plan must be revised to include specific details for proposed activities

Comment 2

The Permittee must revise the Interim Plan to include the sections identified below. Some of these sections identified below are currently in the Interim Plan, but may require expansion, revision, or reorganization.

- a. An Executive Summary (Abstract) must be included to provide a brief summary of the purpose and scope of the Interim Plan. This section must include the facility name and any solid waste management units (SWMUs), areas of concern (AOCs), parcels, and any other locations that the Interim Plan will be addressing.
- b. A Table of Contents must be included that lists all text sections, subsections, tables, figures, and appendices or attachments included in the Interim Plan. Corresponding page numbers for each section, figure, table, appendix, and attachment must be included in the Interim Plan.
- c. An Introduction or Executive Summary must be included in the Interim Plan which includes general information on the current facility usage and status in addition to a brief description of the purpose of the groundwater monitoring included in the Interim Plan and the types of activities to be conducted.
- d. A Background section must be added that briefly describes relevant general background information, including historical site uses, potential receptors, the type and characteristics of the waste or contaminants and any known and possible source(s), and a summary of the history of contaminant releases which could be contributing to groundwater contamination. This Section can contain historical data currently provided in Section 2.0 (Installation Description and History) of the Interim Plan.
- e. The Permittee must include a Site Conditions section to provide a detailed description of current site topography and locations of natural features and manmade structures. This section must include a description of drainages, vegetation types and associations, erosional features, and current site uses, in addition to, descriptions of features located in surrounding sites (i.e., Parcels or SWMUs) that may have an impact on the subject site regarding recharge sediment transport, surface water runoff, or contaminant fate and transport. A description of subsurface conditions must also be included that provides a discussion of the conditions observed during previous subsurface investigations, including but not limited to soil types and associations, stratigraphy, and the presence and flow direction of groundwater.

- f. A Scope of Activities section shall include a list of all anticipated activities to be performed during interim groundwater monitoring sampling events.
- g. A section must be included that provides a description of all anticipated locations to be sampled and methods for conducting the activities during the interim facility wide groundwater monitoring events. This section must include but is not limited to descriptions of: sampling methods, sample handling procedures, procedures for collecting field water quality measurements, any field equipment and calibration procedures, water level measurement, purging activities, and decontamination procedures. This section must also address Investigation Derived Waste (IDW). This is similar to Section 6.0 and 7.0 of the Interim Plan
- h. The Permittee must include a Schedule section that proposes a schedule for the interim groundwater monitoring.
- i. Tables, Figures, and Appendices must be included.

Comment 3

The Permittee must revise the Interim Plan to address the status of all groundwater monitoring wells located at the facility (the Interim Plan is facility wide).

The sampling locations shall be identified by Parcel number and sample identification number. For example, "monitoring wells to be sampled on Parcel 13 include FW35" would be an acceptable location description. If the Permittee chooses not to sample a well, the well must be identified as not being sampled with an explanation as to why it is not being sampled. Regardless of whether a well is being sampled, the Permittee must determine the groundwater elevation during each monitoring event, if the well contains water. If the well does not have water it shall be noted. If a Parcel does not contain any monitoring wells this must be clarified in the Interim Plan. See Comment 12 and 13.

Comment 4

The Permittee states in Section 2.2 (Previous Investigations) on page 2-2, lines 33-36 that "For discussion purposes, these areas have been grouped/identified as Northern FWDA (including the TNT Leaching Bed Area, Administration Area, Eastern Landfill Area, Building 542 and 600 Area, and other sites in the northern portion of FWDA) and the OB/OD Unit."

In the revised report, the Permittee must define and identify the "other sites" in the northern portion of FWDA.

Comment 5

The Permittee states in Section 2.2 (Previous Investigations) on page 2-2, line 40, “A map showing all existing monitoring well locations is included as Figure 3.”

Figure 3 is a large scaled map which makes it difficult to see symbols such as Parcels, structures, well locations. Therefore, in addition to this figure, the Permittee must also provide figures that show the facility on a larger scale for a more legible view of each Parcel and its contents. Also, Figure 3 and the additional maps must clearly identify the symbol for the parcel numbers in the legend (e.g., Figure 3 contains black numbers within a black circle, but this symbol is not defined on the map). The Permittee must define the symbol on Figure 3 and the additional figures if necessary. These changes must be included in the revised Work Plan.

Comment 6

The Permittee states in Section 2.2 (Previous Investigations) on page 2-2, lines 41-42 “An Excel database of all groundwater analytical results to date is included in Appendix A.” Appendix A is broken down into A-1 and A-2. Appendix A-1 (Historical Well Sampling Data) contains “Low Flow Well Sampling Data Forms” for various wells for 2003 and 2005 and includes data for water quality parameters.

There is no explanation as to why the data forms only cover the years 2003 and 2005 and why all wells are not provided. The Permittee must revise Section 2.2 to identify what time intervals the “Historical Well Sampling Data” covers, and why data collected only from certain wells rather than all wells are provided.

Comment 7

The Permittee states in Section 2.2 (Previous Investigations) on page 2-2, lines 41-42 “An Excel database of all groundwater analytical results to date is included in Appendix A.” Appendix A is broken down into A-1 and A-2. Appendix A-2 is a CD containing analytical data.

The Permittee must use the data in Appendix A-2 to create summary tables. The summary tables must include all detections listed in A-2. The foot notes must include all analytical methods presented and data quality exceptions presented in A-2. The summary tables must be included or referenced in the background section of the Interim Plan.

Tables must be formatted as follows and included in the revised Interim Plan:

- a. The Permittee must include summaries of historical groundwater laboratory analytical data including analytical methods, detection limits, detections above New Mexico Water Quality Control Commission (WQCC) at 20.6.2.3103 NMAC and EPA

standards (bolded or highlighted) and significant data quality exceptions and qualifiers that could potentially mask detections.

- b. The analytical data tables must include detected analytes only.
- c. The analytical summary tables must include a column that identifies the Chemical Abstract System (CAS) numbers for each constituent analyzed.
- d. Footnotes must be included and defined in the "Summary of Detected Constituent" tables (e.g., define NS, J, D, ND)

Comment 8

In Section 2.2.1 (1981 Environmental Survey of FWDA) on page 2-3, line 12 the Permittee states that the "OB/OD Areas (Figure 3 and 5), were completed as part of the environmental survey of the OB/OD Areas in 1981."

An additional map must be provided to accompany Figure 5 that does not contain contour lines, to make it more legible to the reader.

Comment 9

The Permittee states in Section 2.2.1 (1981 Environmental Survey of FWDA), page 2-3, line 11-12 that "One planned monitoring well (FW24), is located near an arroyo that drains the OB/OD Areas (Figures 3 and 5)."

The Permittee must clearly identify the well locations on the figures as well as clearly explain what is meant by "planned". Also, when referencing a well location in the text which corresponds with a figure, the Permittee must include the parcel number in which the well is located. The Permittee must revise the text of the Interim Plan accordingly.

Comment 10

The Permittee states in Section 3.2 (Facility-Wide Interim Ground Water Monitoring Data Quality Objectives), page 3-2, lines 21-23 that "The objective of the Facility-Wide Interim Ground Water Monitoring Program is to monitor constituents exceeding cleanup levels in groundwater during the period before long-term monitoring can begin."

As stated above, the objective of this Facility-Wide Interim Ground Water Monitoring Program is to monitor constituents exceeding clean up levels. The objective of the program is also to detect constituents in groundwater that are both above and below clean up levels to evaluate trends in the concentrations over time and migration of contaminants. The purpose of this monitoring is also to characterize hydrologic conditions at, and in the vicinity of, FWDA. No response is necessary.

Comment 11

The Permittee states in Section 4.0 (Interim Groundwater Monitoring Plan for the OB/OD Unit), page 4-1, lines 2-4 that “During the most recent sampling events (See Section 2.2.6), a subset of ten wells (of 22 total wells) were sampled to provide adequate coverage of the OB/OD Area (Figure 5).”

Section 2.2.6 does not make reference to the specific subset of ten wells being sampled. The Permittee must address and correct this discrepancy in the revised Interim Plan.

Comment 12

The Permittee must make the following revisions to the text and tables referenced in Section 4.0 (Interim Groundwater Monitoring Plan for the OB/OD Unit).

- a. The following wells must be added to Section 4.1 (Wells Included in The Interim Monitoring Program) CMW04, CMW06, CMW07, CMW10, CMW20, CMW14, CMW17, CMW19, CMW24, KMW-10, KMW-11, and FW38. Table 2 must be revised accordingly.
- b. Water level measurements (to include depth to static water and total depth of the well) must be collected in all wells on a quarterly basis.
- c. All wells must be sampled on a semi-annual basis. The sampling events must occur in October (after the monsoon season) and in April (toward the end of winter/spring melt).
- d. Monitoring activities and sample collection must begin in October 2007.
- e. Table 2 states “TCL Volatile Organic Compounds [VOC] (SW-846 8260)” and “TCL Semi-volatile Organic Compounds [SVOC] (SW-846 8270).” The Permittee must provide the compounds on the target compound lists for VOCs and SVOCs.
- f. The Permittee must use EPA Method 6860/6850 to analyze for perchlorate. Table 2 must be revised accordingly.
- g. Pages 4-1 – 4-2, lines 33, 34, 1-6, respectively, state “Historically, CMW02 and KMW12 were considered the OB/OD Area background wells and were sampled to provide indications of background ground water parameters. Because these wells have been shown to contain constituents of concern, they should no longer be considered background wells. However, because there are currently no other wells

that could be used as alternative background wells; it is proposed that CMW02 and KWM12 continue to be used until suitable alternative background well locations can be identified and new wells completed as part of closure/corrective action activities.”

The Permittee must continue to sample these wells. However, as the Permittee notes, wells CMW02 and KMW12 are not background wells, and must not be used as alternative background wells. As proposed by the Permittee, suitable background wells must be installed to determine background water quality for each relevant stratigraphic unit at the facility. The Permittee must revise the Interim Plan to reflect this change.

- h. On page 4-1, lines 27-30, the Permittee states “As shown in Figure 5, wells completed in the alluvial materials within the OB/OD Unit and the Entrada formation underlying the Closed OB/OD Area (SWMU 14 and SWMU 15) are not proposed for sampling under this Interim Plan”.

It is unclear which wells are being referenced. The Permittee must therefore revise this paragraph to clearly identify the wells being discussed. The Permittee must also explain why these wells will not be sampled under this comprehensive Interim Facility-Wide Groundwater Monitoring Plan. The Interim Plan must be revised to incorporate this change.

- i. On page 4-3, lines 19-23, the Permittee discusses RCRA guidance and “Detection Monitoring” (40 CFR 265.92). The Permittee must remove all references to 40 CFR 265. Fort Wingate is no longer an interim status facility and the facility wide groundwater monitoring is not necessarily considered detection monitoring. The Permittee must revise the Interim Plan to reflect this change.

Comment 13

The Permittee must make the following revisions to the text and tables referenced in Section 5.0 (Interim Groundwater Monitoring Plan for Northern FWDA):

- a. The Permittee must include the details for sampling well MW-18S. If this well cannot be sampled, an explanation must be provided.
- b. On page 5-1, lines 16 through 21, the Permittee states that wells Wingate 89, Wingate 90, and Wingate 91 will not be sampled. These wells do not need to be sampled. However, the Permittee must collect water elevation measurements and determine the total depth of the wells. These measurements must be incorporated into Interim Plan (See Comment 12b).

- c. The Permittee, on lines 22 through 31 states that “FW” series wells (e.g., FW08) are said to be dry and therefore no sampling has occurred. If wells contain a sufficient amount of water, the Permittee must sample them. If any of the “FW” wells are not sampled, the Permittee must clearly explain why these wells cannot be sampled (e.g., lack of water, based on construction, age, current condition).
- d. Table 5 must be revised to include all monitoring wells for the Northern FWDA area.
- e. See comment 12.d
- f. The Permittee discusses on page 5-1, lines 32 through 40 that wells TMW14A and TMW28 contain constituents of concern and are used as background wells until other background wells are installed. The Permittee must continue to sample TMW14A and TMW28. Based on the location of the wells and the presence of constituents, these wells do not serve as adequate background wells. The Permittee should not refer to them as background wells in the Interim Plan. The Permittee must revise the text in this paragraph to remove the reference to wells TMW 14A & TMW 28 as background wells.
- g. Table 5 and the text must be revised to include the analysis of SVOCs (SW-846 8270) for all wells.
- h. Ground water collected from all wells must be analyzed for dioxins and furans. Table 5 and the text found on page 5-2, lines 27-30 must be revised to include analysis of dioxins and furans for all wells listed in Table 5, which would be the Northern FWDA Area.
- i. Table 5 must be revised to show that groundwater from wells MW-18S, MW-18D, MW-20, MW-22S, and MW-22D will be analyzed for SW-846 diesel range and heavier organics (DRO) and gasoline range organics (GRO using EPA method 8015B because these wells are located downgradient of former underground storage tanks.
- j. The Permittee states in Table 5 that “TCL Volatile Organic Compounds [VOC] (SW-846 8260)” and “TCL Semi-volatile Organic Compounds [SVOC] (SW-846 8270).” VOCs and SVOCs are for total waste characterization and not total characteristic leaching procedures. The Permittee must provide the compounds on the target compound lists for VOCs and SVOCs.
- k. The Permittee must use EPA Method 6860/6850 to analyze for perchlorate. Table 5 must be revised accordingly.

1. On page 5-3, lines 8-12, the Permittee discusses RCRA guidance and "Detection Monitoring" (40 CFR 265.92). The Permittee must remove all references to 40 CFR 265 (Interim status regulations). Fort Wingate is no longer an interim status facility and the facility wide groundwater monitoring is not necessarily detection monitoring.

Comment 14

The Permittee states in Section 4.3 (Interim Monitoring Program Target Constituents) and Section 5.3 (Interim Monitoring Program Target Constituents) on pages 4-3 and 5-2 "[a]fter the first two consecutive quarters, the constituents detected during those sampling events will be used to reevaluate the constituent groups sampled at each well. Samples collected during subsequent sampling events will be analyzed for only the list of constituents detected in any well. In other words, if a constituent is detected in one well, that constituent will remain on the list of analytes for all wells, to allow for evaluation of constituent migration. Consequently, if a constituent is not detected in any well, it will be dropped from the analyte list for subsequent sampling events."

Any proposed changes to the Interim Plan must be submitted in the annual revision to the Interim Plan in accordance with Section V.A.4 of the RCRA Permit for review and approval by NMED. The text should be revised to state all changes to the interim plan will be proposed in the annual revision to the interim plan submitted to NMED.

Comment 15

In Sections 6.1.3.5 (Collect Water Samples) and 6.2.3.4 (Collect Water Samples) the Permittee must include a description of sample handling and address the use of personal protective equipment (PPE) (e.g., latex or nitrile gloves) and decontamination procedures. This can also be addressed in the equipment sections. The Permittee must revise these sections to include this information. This change must be incorporated in the revised Work Plan.

Comment 16

The Permittee does not provide a description of how purge volumes will be calculated in Section 6.2.3.2 (Purge Well). The Permittee must revise this section to include how the purge volumes will be calculated or if low flow techniques will be employed.

Comment 17

The Permittee addresses Investigation-Derived Waste (IDW) Characterization and Disposal in Section 6.6. Three types of IDW are identified that may be generated during sampling of ground

water and referred to in Appendix C (Investigation Derived Waste management Plan). The Permittee addresses IDW that is not generated in the groundwater monitoring activities, and goes into detail pertaining to site investigations, remedial activities, and the disposal of hazardous waste, special waste, and non-hazardous/non-regulated wastes. The Permittee must revise Appendix C to only address the IDW resulting from the facility wide groundwater monitoring sampling events.

Comment 18

The Permittee must remove Section 7 (Quality Assurance/Quality Control (QA/QC) Procedures and Requirements) from the Work Plan because it is neither required nor does NMED approve standardized QA/QC protocols as part of the Work Plan review process.

Comment 19

The Permittee provides the "Site Safety and Health Plan" in Appendix D of the Interim Plan. The Permittee is required to have Health and Safety plans in place; however, the Permittee should be aware that NMED does not review or approve the health and safety plans.

Comment 20

The Permittee provided "Consultation Process Documentation" in Appendix E. The following discrepancies are identified below.

- a. Page 1, Comment 4 states "Is there any documentation that NTUA denied access for sampling of the offsite wells that NTUA is responsible for? NTUA is not defined in the Interim Plan. The Permittee must provide a definition for this acronym.
- b. Page 5, Comment 4, states "Provide a brief statement as to why Well #29 is discussed in the Interim Plan rather than the Off-Site Monitoring Plan." The Response states "The reference to well #19 has been removed from the Interim Facility-Wide GWMP." "Well #19 is included in discussion in the IMWP for Off-Site Water Well Sampling."

The Permittee must clarify which well is being referenced correctly in the text.

Comment 21

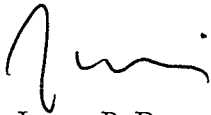
The Permittee must revise Figure 2 to include a legend. The legend must define all symbols (e.g. numbers inside circles, dots and line shadings) used on the figure.

Mark Patterson
July 6, 2007
Page 11

The revised plan must include a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. All requirements of this letter must be incorporated into the annual update of the Interim Plan. The revised plan must be submitted to NMED no later than October 5, 2007.

If you have questions regarding this letter please contact Tammy Diaz of my staff at 505-476-6056.

Sincerely,



James P. Bearzi
Bureau Chief
Hazardous Waste Bureau

cc: D. Cobrain NMED HWB
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