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NEW MEXICO ENVIRONMENT DEPARTMENT

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 30, 2009

Mark Patterson Ravenna Army Ammunition Plant Building 1037 8451 State Route 5 Ravenna, OH 44266 Steve Smith CESWF-PER-DD 819 Taylor Street, Room 3A12 PO Box 17300 Fort Worth, TX 76102-0300

RE:

SECOND NOTICE OF DEFICIENCY
BACKGROUND STUDY AND GEOCHEMICAL EVALUATION
WORK PLAN (REVISED)
FORT WINGATE DEPOT ACTIVITY
EPA ID# NM6213820974
FWDA-09-002

Dear Messrs. Patterson and Smith:

The New Mexico Environment Department (NMED) has received the Department of the Army's (the Permittee) *Background Study and Geochemical Evaluation (Revised)* dated, October, 2009, (Work Plan) submitted pursuant to NMED's Notice of Deficiency (NOD) dated August 4, 2009. NMED has reviewed the revised Work Plan and hereby issues this second Notice of Deficiency (NOD). The Permittee must satisfactorily address the following comments before NMED can approve the Work Plan.

COMMENT 1

During the site visit on June 17, 2009, the Permittee indicated that the proposed sample locations for the background study in the vicinity of Parcel 3 were located outside of the kickout area of past open burn/open detonation (OB/OD) activities. Plate 3-1 of the Work Plan shows that several of the proposed sample locations are within the OB/OD kick- out area. While this may not overly impact background levels for metals, there may be some concern for materials

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potentially posing an explosive hazard (MPPEH), which could impact the Permittee's ability to collect subsurface samples. Those samples must therefore be removed for the background study. The Permittee must include these changes in the revised Work Plan as well as provide an updated figure with the revised proposed soil sample locations.

COMMENT 2

In Section 3.6 (Data Evaluation), the Permittee revised the Work Plan to indicate that distribution-based statistics will be used to determine upper confidence levels (UCLs) and upper tolerance limits (UTLs), and that the Environmental Protection Agency's (EPA) ProUCL program will be used for the determination of these parameters. In the response to Comments, Comment 3, the Permittee states that "[p]rior experience also indicates that the ProUCL program appears to have several software bugs and does not always yield reliable recommendations on the preferred type of UCL or UTL to use." In the August 4, 2009 NOD, NMED directed that an EPA-approved program be used to determine these parameters. ProUCL was provided as an example only and not as a requirement, as it is not the only EPA approved program for determining the statistical requirements. Therefore the Permittee is not required to adhere to the use of ProUCL and a different EPA approved program may be used. No revisions to the Work Plan are necessary.

COMMENT 3

The response to Comment 5 in Appendix B of the response is not adequate. The original comment in the August 4, 2009 NOD addressed Table 3-1 subsequently titled Table 4-1; therefore the following apply to tables 4-1, E-1 and I-1.

- a. The Final Work Plan was revised to reference the 2009 NMED soil screening levels (SSLs) and the Regional Screening Levels (RSLs). If a cancer-based RSL was applied, the datum was not revised to reflect the NMED target risk level of 1E-05 but rather still reflects a target risk level of 1E-06. This is an overly conservative approach, but acceptable if desired by FWDA. No response required.
- b. The three tables (4-1, E-1, and I-1) show the SSL (where available) and carcinogenic RSLs. If an analyte did not have an associated carcinogenic-based RSL, a value of one was entered. It is unclear why this approach was taken. If an analyte is a non-carcinogen, then the non-carcinogenic based RSL should have been applied. It is incorrect to apply a carcinogenic-based screening value to a chemical for which there are no known carcinogenic effects. Not only is there no scientific basis for this approach, but it could result in overly conservative and unobtainable data. The result mostly impacts metals that are considered essential nutrients (calcium, magnesium, potassium, and sodium). A further problem is that in reviewing the measurement quality objectives in Table I-1, the minimum practical quantitation limits, reporting limits, and minimum detection limits are not sensitive enough to allow recognition of the proposed evaluation criteria. This approach should be removed from the Final Work Plan. In lieu of using a value of one

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for essential nutrients, it is suggested that a screening level be developed using the upper intake level of recommended dietary allowance data.

c. Table 4-1. A transcription error: the NMED SSL for vanadium is 391 milligrams per kilogram (mg/kg) and not 3.91 mg/kg.

The Permittee must ensure that these changes are included in the revised Work Plan.

Comment 4

In the revised Work Plan the Permittee includes Figure 3-2, which shows the proposed groundwater well locations for the background study. In email correspondence between David Henry of the USACE and NMED dated September 23, 2009, NMED approved the proposed wells (FW-31, TMW-14A, TMW-19, TMW-25, TMW-26, TMW-27, TMW-28) for the background study; however, the results from the April 2009 groundwater sampling event and the results from the background study may necessitate installation of additional monitoring wells for the purpose of determining accurate background concentrations.

In addition, the Permittee provided limited information for the proposed wells. The Permittee must include additional justification that these wells are appropriate and not potentially impacted by FWDA activities. The Permittee must also provide summary tables for the proposed wells that include results from the last three sampling events, well log information, well depths, screened intervals, depth to groundwater, and well construction diagrams. This information must be included in the revised Work Plan.

The Permittee must address all comments contained in this NOD and submit a revised Work Plan no later than November 30, 2009. The cover page must indicate that the submittal is a revision and was prepared for NMED. The revised Work Plan must be accompanied with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. The Permittee must also submit an electronic copy of the revised Work Plan with all edits and modifications shown in redline-strikeout format.

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If you have any questions regarding this letter, please contact Tammy Diaz-Martinez at (505) 476-6056.

Sincerely,

James P. Bearzi

Chief

Hazardous Waste Bureau

cc: Tammy Diaz-Martinez, NMED HWB

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FWDA-09-002