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Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 21, 2011

Thomas A. Ladd, Director
Environment and Safety Directorate
U.S. Army White Sands Missile Range
White Sands Missile Range,
New Mexico 88002-5000

**RE: NOTICE OF DISAPPROVAL
RFI REPORT FOR THE MAIN POST POL
AST RELEASE SITE (SWMU 219)
WHITE SANDS MISSILE RANGE, NEW MEXICO
EPA ID # NM 2750211235
HWB-WSMR-10-003**

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) has received the U.S. Army White Sands Missile Range (Permittee) *RCRA Facility Investigation Report for the Main Post POL AST Release Site (SWMU 219)* (Report) dated September 2010. NMED has reviewed the Report and hereby issues this Notice of Disapproval (NOD) with the following comments.

Comment 1

The Report's cover letter dated October 7, 2010, states that it "already completed investigation activities based on the first NOD and therefore requested an extension to complete the investigation report in lieu of submitting another revised work plan." NMED's Approval for Extension letter dated August 17, 2010, states, "NMED understands that the Permittee is conducting the investigation at risk without an approved Work Plan. The Permittee must adhere to the requirements in NMED's November 6, 2009 NOD and May 12, 2010 NOD related to the RCRA Investigation Work Plan for the Main Post POL, [Solid Waste Management Unit

(SWMU)] 219 when conducting the investigation activities and when preparing the Investigation Report.” The Permittee did not comply with the requirements included in either NOD, nor did the investigation include the entire SWMU. Submit a work plan to address all comments in both of NMED’s NODs as well as describe the proposed investigation methods for the entire SWMU 219 for approval by NMED prior to beginning further investigations.

Comment 2

The second NOD dated May 12, 2010 (Second NOD), Comment 1, required the Permittee to investigate the entire SWMU. In the response to NMED’s Comment 1, the Permittee states, “Appendix 4, Table 4-1 specifically notates SWMU 219 as the AST Release Site.” However, the Permittee’s Hazardous Waste Facility Permit (Permit) does not identify the “AST Release Site” as SWMU 219; it is merely a “Comment” from the table. The “Unit Description” provides the clear definition of the SWMU, which is the Main Post POL. The Permittee must submit another work plan to fulfill the aforementioned Permit requirement to investigate the entire SWMU and clearly define the boundary of the entire SWMU 219 site. NMED has attached two figures that define the aerial extent of SWMU 219. NMED notes that the Permittee did not define the site boundary as requested in the first and second NODs.

Comment 3

Comments from NMED’s November 6, 2009 NOD (First NOD) and the Second NOD directed the Permittee to revise the figures to include the entire SWMU 219 site. The relevant comments are reiterated here:

- a. Figure 1 (*Main Post Site Map*) must include the newly illustrated boundary of SWMU 219 provided by NMED and properly label the site “SWMU 219” in relation to the Main Post. The aerial photograph used to illustrate the Main Post must also be a current photograph. This figure must also include any other AOCs and SWMUs located in the vicinity of the Main Post POL. The title of Figure 1 must be changed to “White Sands Missile Range, New Mexico, Main Post POL SWMU 219.”
- b. Figure 2 (*Site Layout SWMU 219*) must be a site plan scaled to focus on SWMU 219 and adjacent features and structures that clearly “illustrate the boundaries, structures, [and/or] features” of the entire SWMU 219 site as listed in the Permit (Appendix 7, Section 7.3.13, Item 2). Provide additional figures to identify specific features if they are unable to be clearly displayed on one figure. All utilities (aboveground and underground) must be depicted and labeled. All existing and former buildings and structures must be properly labeled. All existing and former ASTs and underground storage tanks (USTs) must also be identified on the figure(s). Historical and current aerial photographs and assessments must be used to compile this information on appropriate figure(s). Figure 2

must be titled "White Sands Missile Range, New Mexico, Main Post POL SWMU 219" and Figure 2.

Comment 4

Comment 8, Second NOD, states that "past sampling has not been conducted at SWMU 219, the scope of work must be expanded to include the entire SWMU. Additionally, fuel lines are present at the site. Therefore, the sampling suite must be revised to include volatile organic compounds (VOCs) using EPA Method 8260, semi volatile organic compound (SVOCs) using EPA Method 8270, GRO, diesel range organics (DRO) extended, and RCRA 8 metals." The Permittee did not address this comment. Address all requirements specified by NMED in the Second NOD in the work plan proposing investigation of the entire SWMU.

Comment 5

The Executive Summary, paragraph 1, page b, explains that the AST gasoline release in December 2005 occurred while transferring fuel from the higher capacity 25,000 gallon tanks to the three smaller capacity 6,000 gallon tanks.

- a. Repword the description to verify that all three 6,000 gallon tanks were filled simultaneously and the release was a result of overfill from all three 6,000 gallon tanks and provide a more specific description of the location of the release from the secondary containment [see the Permittee's Response to Comment 5 (*Response to Second Notice of Disapproval for the RCRA Facility Investigation Work Plan for the Main Post POL AST Release Site, SWMU 219*)].
- b. Provide a description (in the background section of the report) of the surface conditions at the location where the release occurred.
 1. Describe the base of the secondary containment (e.g., gravel or asphalt).
 2. Indicate if the transport path of the release on the ground surface included surface depressions (e.g., storm water drainages, cracks or potholes in the asphalt) where fuel could have ponded.

Comment 6

The Permittee's Response to Comment 6 (*Response to NOD for RCRA Facility Investigation Work Plan*) states, "[i]t is assumed that no gasoline was recovered from [the] December 2005 release." Verify that no gasoline was recovered from the release and state as such in Section 2.2 of revised Report, or otherwise state the basis for the assumption.

Comment 7

Section 2.3 (*Surface Conditions*), page 3, states, “[s]tormwater from the northern portion of the POL Storage Area flows through a culvert located beneath Wesson Street, just south of Aberdeen Avenue. The stormwater then flows through an unlined ditch toward the east.” Propose to collect samples from the stormwater lagoons and unlined ditch to verify that gasoline from the AST release site did not reach them. This sampling must be proposed in the work plan to investigate the entire SWMU (*see* Comment 4).

Comment 8

Section 2.6 (*Climate*), page 5, describes the climate at the Main Post. However, the Permittee does not discuss whether this area experiences seasonal rains nor did the Permittee discuss any major precipitation events that occurred before, on, or around the December 2005 release date. Include this information in the revised Report.

Comment 9

Section 3.1.2 (*Soil Sample Collection and Field Screening Procedures*), page 6, states, “[t]he lead auger was used to drill through the asphalt at locations SB-001 through SB-005 and to drill through the concrete floor of the containment area of location SB-006. A hand auger was used to remove the upper 3 feet of soil at each location to verify that no utility lines were located in vicinity of the borings. Beneath the hand-augered portion of each boring, soil samples were collected by advancing core barrels ahead of the hollow stem augers. Soil cores were collected continuously to the total depth drilled at each location.” It is not clear if the hand-augered intervals from the surface to 3 feet below ground surface were continuously sampled or if soil samples were collected only after the Permittee hand-augered to a depth of 3 feet. Identify all the sampling intervals where soil samples were collected and indicate the sample intervals on the soil boring logs. Revise the Report accordingly.

Comment 10

Section 3.1.2 (*Soil Sample Collection and Field Screening Procedures*), page 6, describes the use of field screening equipment to measure the total VOCs in the headspace of the soil samples collected. Describe the equipment that was used, including manufacturer, bulb strength and detection range, the calibration process, and frequency of calibration. The boring logs from Appendix B must include instrument readings for all soil samples. Provide justification for omitting any of the readings, or if readings were not obtained. Revise the Report accordingly.

Comment 11

Section 3.1.3 (*Decontamination Process*), paragraph 1 does not include a description of the decontamination procedures for the drilling rig or other heavy equipment used. Revise the Report to include this information.

Comment 12

Section 3.1.8 (*Waste Handling*), page 10, states that “waste was disposed of off-site by WMC on April 28, 2010.” The Permittee also states that the waste generated from the April 2010 event “was disposed of July 2010.” Provide additional information pertaining to the investigation derived waste (IDW) management and disposal in accordance with Section 7.3.14.a of the Permit. The additional information must also include the quantities and types of waste generated (solids and/or liquids) and if these wastes were separated for disposal. Submit this information as an additional appendix in the revised Report.

Comment 13

Section 4.2 (*Soil Sampling Field Screening Results*), page 13, includes numerical values that do not have units. Revise the Report to include the units of measure.

Comment 14

Section 5, (*Conclusions*), page 17, states, “[b]enzene was the only [constituent of potential concern (COPC)] present at concentrations above the DAF 20 value.” However, Figure 4 (BTEX and GRO Concentrations) and Table 3 (Summary of Soil Sample Analytical Results) show that ethylbenzene and total xylenes also exceed the NMED DAF 20 screening values. Revise this conclusion to include discussion of all results that exceed screening levels and explain why a DAF 20 was chosen for comparison.

Comment 15

Section 5 (*Conclusions*), page 18, states, “[t]he RFI for the Site was successfully completed and meets the RFI requirements described in the Permit. No further investigation is recommended.” The Permittee has not demonstrated that “no further investigation” is warranted for SWMU 219 because the entire site was not investigated. The Permittee must submit another work plan to investigate the rest of SWMU 219 (*see Comment 2*).

Comment 16

Table 1 (*Depth to Groundwater in Nearby Wells*), does not include a description for the locations of each of the monitoring wells (e.g. NW of “Site”). Revise the table to include a column

labeled "Location" that describes where the monitoring wells are located with respect to SWMU 219.

Comment 17

Table 2 (*Soil Sample Locations and Depth Intervals*), must be revised to separate the row cells for SB-007 and SB-008, and include units of measure for the PID readings. It must be explained in the text and comments section why lead was not included in the analysis for samples SB-007 and SB-008.

Comment 18

Table 3 (*Summary of Soil Sample Analytical Results*), must highlight values that exceed soil screening levels (SSLs) and DAF 20 to identify the exceedances on the tables (*see* also Comment 17 regarding lead data).

Comment 19

Table 4 (*Waste Characterization Samples Analytical Data Summary*), must provide a note/comment for sample CS-001 that identifies the sample matrix (i.e., solids or liquids). Revise "Acronym/Notes" to define "NA" and explain why analysis was not conducted for certain constituents.

Comment 20

The following comments pertain to figures:

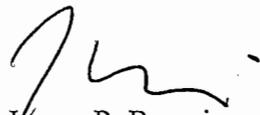
- a. The current Figure 2 must be changed to Figure 3 (*AST Release Site Layout*) in the revised Report. Clearly "illustrate the boundaries, structures, [and/or] features" of the December 2005 AST Release as required by the Permit, Appendix 7, Section 7.3.13, Item 2. All existing and former buildings and structures must be properly labeled. Provide additional figures to identify specific features if they are unable to be clearly displayed on one figure. All existing and former ASTs and USTs must be identified on the figure(s). Ensure all text on figure(s) is consistent and legible (*see* Comment 3). Differentiate between buildings, ASTs, and USTs on the figure(s). Ensure the USTs, ASTs and associated secondary containment are shown to scale. The figure(s) must depict surface conditions (e.g., asphalt and gravel) and topography.
- b. The current Figure 3 must be changed to Figure 4 (*Soil Boring Locations*) in the revised Report. Revise the symbol color of soil sample locations from yellow to black so it does not conflict with Note 2 on the figure reporting the BTEX and GRO concentrations.

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Address all comments contained in this NOD and submit a revised Report no later than June 1, 2011. Submit a work plan that extends the investigation to include the entire SWMU 219 site on or before July 31, 2011. The revised Report must include a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised Report and Work Plan must be submitted that identifies where all changes have been made in red-line strikeout format.

If you have questions regarding this letter please contact Leona Tsinnajinnie of my staff at 505-476-6057.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: R. Solomon, Acting Director, NMED WWMD
J. Kieling, NMED HWB
D. Cobrain, NMED HWB
K. Van Horn, NMED HWB
L. Tsinnajinnie, NMED HWB
Robert Peters, WSMR
Jose Gallegos, WSMR
Benito Avalos, WSMR

File: Reading and WSMR 2010 and HWB-WSMR-09-004

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- c. The current Figure 4 must be changed to Figure 5 (*BTEX and GRO Concentrations*) in the revised Report. Revise the symbol color of the soil sample locations from yellow to black as required by Item C above. Also define "NA" from the SB-006 (3-4) result table.

Comment 21

Revise the table formats for the Boring/Well Construction Logs as described below:

- a. Reformat the cells to show all field parameters recorded, and provide the appropriate units (e.g., air temperature in degrees Fahrenheit or Celsius).
- b. Provide consistent names on all figures, (e.g., "Pumps" used instead of "Dispenser Island" and "Tanks" used instead of "ASTs, 3 X 6,000 gallon unleaded gasoline").
- c. Explain why the number of blow counts was not recorded when split barrel samplers were utilized.
- d. On the SB-006 boring log, the column labeled "Color" is incomplete. Explain why the log was not completed.
- e. Define "TOC."
- f. Provide a key to symbols and identify the soil or rock classification system used to log the soil borings in accordance with Appendix 7, Section 7.3.14.b of the Permit. The soil classification must be included in the boring logs.

Comment 22

Appendix D does not show the PID readings collected at all depths. Explain how the screening intervals were selected and why not all measurements were recorded (including readings of 0 ppm). Provide this information in the revised Report and in the boring logs.

Comment 23

Remove Appendix E (*Risk Assessment*) from the Report because it is not appropriate for such a small portion of a SWMU.

Printed from Google Map 01/02/11



SWMU 219 Boundary

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Fig. 2

I:\WhiteSands\GIS\ArcMap_MXD\MainPost\MP_POL_RF1\Fig1_MainPost_SiteMap.mxd

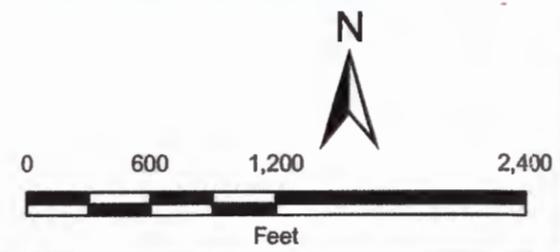


LEGEND

-  Test Well
-  Monitoring Well

 SWMU 219 BOUNDARY

SOURCE:
BASE MAP INFORMATION AND AERIAL PHOTOGRAPH PROVIDED BY ZIA, OCTOBER 2008



WHITE SANDS MISSILE RANGE
NEW MEXICO
MAIN POST POL AST RELEASE SITE
RCRA FACILITY INVESTIGATION

SITE MAP



FIGURE
1