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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 12, 2010

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

**RE: SECOND NOTICE OF DISAPPROVAL  
RCRA FACILITY INVESTIGATION WORK PLAN  
FOR THE MAIN POST POL, SWMU 219  
WHITE SANDS MISSILE RANGE  
EPA ID # NM 2750211235  
HWB-WSMR-09-004**

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) has received the U.S. Army White Sands Missile Range (Permittee) *Revised RCRA Facility Investigation Work Plan for the Main Post POL Storage Site SWMU 19* (Work Plan), dated February 2010. NMED has reviewed the Work Plan and hereby issues this second Notice of Disapproval (NOD) with the following comments.

**Comment 1**

The objectives of this Work Plan, as identified by the Permittee in Section 1 (Introduction) are to investigate a fuel spill that occurred in December 2005 and determine if the spill has migrated to surrounding groundwater and soil. In addition to investigating the fuel spill, this Work Plan must also investigate the entire Solid Waste Management Unit (SWMU) 219 (Main Post POL) as required by the December 2009 Hazardous Waste Facility Permit (Permit). Appendix 8, Table 8-2 (SWMUs and AOCs Requiring Corrective Action) of the Permit requires the submittal of a Work Plan to investigate SWMU 219 no later than May 15, 2010. The Permittee must revise the

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Work Plan to propose investigation of the entire SWMU as well as the fuel spill in accordance with Permit Appendix 8, Table 8-2. The revised Work Plan must fulfill the aforementioned Permit requirement. Additional required revisions to the Work Plan are addressed in the comments below.

**Comment 2**

In Section 1 (Introduction), page 1, the Permittee states “[t]his Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan was developed by ARCADIS on behalf of White Sands Missile Range (WSMR) pursuant to requirements of WSMR’s Hazardous Waste Permit (No. NM2750211235) dated October 14, 1989.” Since the initial submittal of this Work Plan, NMED has since renewed the Permit. The Permittee must revise the Work Plan to reference and adhere to the Permit.

**Comment 3**

In Section 1 (Introduction) of the Work Plan, page 1, the Permittee states that one of the primary objectives of the proposed activities is to “evaluate potential risks to human and ecological receptors exposed to the affected media” and in bullet three states “[p]erform Human Health and Ecological Risk Assessments, if needed (Appendices A and B, respectively).” The Permittee further discusses conducting human and ecological risk assessments in Section 7 (Risk Assessment). The Permittee may choose to conduct risk assessment(s), but only if the nature and extent of contamination for all of SWMU 219 have been fully defined; a risk assessment(s) cannot be performed on a portion of a SWMU (e.g., the spill area). The Permittee must revise the Work Plan as appropriate.

**Comment 4**

The Permittee’s NOD response (*Response to Notice of Disapproval for the RCRA Facility Investigation Work Plan for the Main Post POL, SWMU 219*), to Comment 1 indicates the risk assessment work plans were removed from the Work Plan; however, Section 1 (Introduction), page 1, bullet 3, the Permittee states “[p]erform Human Health and Ecological Risk Assessments, if needed (Appendices A and B, respectively).” Appendix A and B do not contain information pertaining to the risk assessments. The Permittee must revise the Work Plan to address this discrepancy.

**Comment 5**

In Section 2 (Background Information), page 2, the Permittee states “[o]n December 7, 2005, a release of approximately 1,730 gallons of gasoline occurred while transferring gasoline between one of the 25,000 gallon gasoline ASTs to one of the 6,000 gallon gasoline ASTs.” Because there are several 6,000 gallon and 25,000 gallon gasoline above ground storage tanks (ASTs) located within the SWMU, the Permittee must revise the text of this Section to reference an additional figure that specifically shows the location of where the release occurred.

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**Comment 6**

In Section 3 (Site Conditions), page 2, the Permittee provides a very brief description of the current conditions at the Main Post POL and the location of the spill. The Permittee must expand this section in the revised the Work Plan to describe the current site conditions for the entire SWMU 219 (e.g., include ASTs, loading racks, storm drains and catch basins, all structures and their uses). See Appendix 7, Section 7.2.6 of the Permit.

**Comment 7**

In Section 1 (Introduction), page 1, bullet four, the Permittee states “[p]erform a statistical evaluation of analytical results and background levels.” in Section 4 (Previous Investigations), page 8, states “[r]esults from this investigation will be used in this RFI to statistically compare background lead concentrations to site concentrations,” and in Section 6.2 (Evaluation of Data for Site Characterization), page 16, states “[l]ead data collected during the investigation will be compared with the background lead value established from the site wide background study conducted for the Main Post Area (BAE Systems, 2004).” The Work Plan does not discuss how the statistical evaluation will be conducted, does not explain its purpose, nor address which statistical test will be used to compare background concentrations to site concentrations. The Permittee must revise the Work Plan to discuss the purpose of the statistical evaluation and describe how the statistical evaluation will be conducted and what test will be utilized. In addition, the Permittee must compare all inorganic constituents to the established background values and not limit the comparison to lead (RCRA 8 metals will be required as part of the chemical analyses; see Comment 8).

**Comment 8**

In Section 5.1 (Soil Sampling), page 9, the Permittee states “[s]oil samples will be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using United States Environmental Protection Agency (USEPA) Method 8021B: Gasoline Range Organics (GRO) using EPA method 8015; and lead using USEPA Method 6010A.” Because 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 must revise the Work Plan to include this proposed work.

**Comment 9**

In Section 5.2 Groundwater Sampling, page 10, the Permittee states “[g]auging information from monitoring wells on the Main Post, specifically, T-12, OS-12, 0063MW-11, and 0063MW-12, indicate that groundwater is encountered greater than 200 ft bgs.” The location of these monitoring wells within the Main Post area is not clear. The Permittee must identify the location of these monitoring wells in a figure and also include a table that presents the past two years of

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water depth measurements and associated water elevations. This information must be included in the revised Work Plan.

**Comment 10**

In Section 5.2 (Groundwater Sampling), page 10, the Permittee asserts that if groundwater is detected, a temporary monitoring well will be installed and a groundwater sample will be obtained and analyzed for BTEX and GRO. In the unlikely event that groundwater is encountered, the Permittee must contact NMED prior to the construction of any monitoring well(s) to consult with regard to the well installation(s) and the groundwater sample(s) chemical analyses. The Permittee must revise the Work Plan to discuss these changes.

**Comment 11**

In Section 5.6 (Decontamination Procedures), pages 11-12, the Permittee states “[d]econtamination of environmental sample collection equipment will follow the same procedure. For additional discussion of this process please refer to *Standard Practices for Decontamination of Field Equipment Used at Waste Sites* (ASTM 05088-02).” As addressed in Appendix 5 of the Permit, Permit Section 5.1 (Standard Operating Procedures), NMED requires a description of field methods in a Work Plan (see Permit Appendix 7, Section 7.2.8). The Permittee must remove reference to the guidance document and describe all relevant proposed decontamination information in the revised Work Plan.

**Comment 12**

The Permittee discusses investigation derived wastes (IDW) in Section 5.7, page 12 and states “[s]uch additional characterization may include collection of composite samples from soil drums and analysis of specific parameters required for disposal purposes only.” As a reminder, composite samples cannot be used for VOC analysis; samples tested for VOCs must be discrete samples. The Permittee must describe how composite samples will be collected. The Permittee must revise the Work Plan accordingly.

**Comment 13**

There are discrepancies as to which New Mexico Soil Screening levels (NM SSLs) will be compared to the soil chemical analytical results. In Section 6.2 (Evaluation of Data for Site Characterization), page 16, the Permittee states “[s]oil analytical data will be evaluated according to the guidance contained in the Technical Background Document for Development of Soil Screening Levels, Revision 4.0 (NMED, 2006). Specifically, soil data will be compared to the NM Soil Screening Levels published by the NMED and current at the time the field investigation is completed...Soil data will also be compared to the Dilution Attenuation Factor (DAF) 20 values published by the NMED to evaluate the potential for soils to leach.” In Section 8 (Reporting), page 17, bullet 1, the Permittee states “[s]ummary tables of the analytical data compared to residential SSLs and background levels.” The Permittee must apply the soil screening standards as specified in Appendix 3 of the Permit (i.e., the NM SSLs Revision 5.0

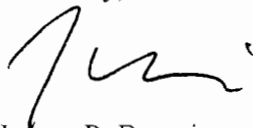
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- b. Identify and label the main post building, Building 1785, the POL station, storage locations, and the buildings west and southwest of the dispenser island.
- c. The Permittee may choose to include additional figures to convey the required information.

The Permittee must address all comments contained in this NOD and submit a revised Work Plan to NMED on or before July 30, 2010. The revised Work Plan 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 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 Hope Monzeglio or Kristen Van Horn of my staff at 505-476-6045.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
K. Van Horn, NMED HWB  
H. Monzeglio, NMED HWB  
Robert Peters, WSMR  
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(2009) and use the residential and industrial land use scenarios). In addition, the Permittee must also compare the analytical results to the NMED Total Petroleum Hydrocarbon (TPH) Screening Guidelines (October-2006), Table 2a, for residential and industrial land use. The Permittee must revise the applicable sections of the Work Plan accordingly.

**Comment 14**

In Section 8 (Reporting), the Permittee discusses the information to be included in Investigation Report. In addition to what is listed in Section 8.0, the Permittee must refer to Appendix 7, Section 7.3 of the RCRA Permit for the reporting requirements for the Investigation Report. If the Permittee chooses to conduct human health and ecological risk assessments, the reporting requirements for a risk assessment are found in Permit Appendix 7, Section 7.5. The required information must be included as an Appendix to the investigation report. The Permittee must revise the Work Plan as applicable.

**Comment 15**

In Appendix B (Data Quality Objectives), page 3/5, bullet one, under *Evaluation of Compliance*, the Permittee states “[a]ll chemistry data generated will undergo a Tier 2 validation (Section 7.2.2.1).” It is not clear what Section 7.2.2.1 is referring to because this Section is not included in the Work Plan. The Permittee must revise the Work Plan to refer to the correct section.

**Comment 16**

In Appendix B (Data Quality Objectives), page 4/5, the Permittee discusses the “Evaluation of Completeness” and the use of EQUIS Data Qualification Module (DQM). NMED requires laboratory data to be provided in electronic form and the accompanying case narrative provided by the laboratory. NMED must be capable of reviewing the electronic format included in any submittal. It is expected the Permittee will provide a discussion of any data quality exceptions documented in the laboratory reports. No revision is necessary; this information must be included in the investigation report.

**Comment 17**

Figure 2, contains a “Lined Ditch” north of Aberdeen Avenue and an “unlined ditch” east of Wesson Street. The Permittee must describe the purpose of the lined and unlined ditches and include investigation of the ditches in the Work Plan, if applicable. The Permittee must revise the Work Plan to include this additional information as necessary.

**Comment 18**

The Permittee must revise Figure 2 (Main Post POL Storage Site Proposed Soil Borings) as follows:

- a. Expand the figure to show the entire SWMU and not just the location of the gasoline spill.