



NEW MEXICO
ENVIRONMENT DEPARTMENT



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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 28, 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: NOTICE OF DISAPPROVAL
ACCELERATED CORRECTIVE ACTION COMPLETION REPORT
FOR REMEDIATION OF DIESEL CONTAMINATED SOIL AT
MULTIPLE SITES: SWMUs 166 AND 199-214 (CCWS Sites 27, 29-32, 34-39,
42, 43, and 53) WHITE SANDS MISSILE RANGE
EPA ID# NM2750211235
HWB-WSMR-08-004**

Dear Mr. Ladd:

The New Mexico Environment Department (NMED) has completed its technical review of White Sands Missile Range's (Permittee) *Revised Accelerated Corrective Action Completion Report for Remediation of Diesel Contaminated Soil at Multiple Sites: SWMUs 166 and 199-214 (CCWS Sites 27, 29-32, 34-39, 42, 43, and 53)* (Report), dated December 2009. NMED hereby issues this Notice of Disapproval (NOD), and provides the following comments.

Comments

1. In the Verification of Remediation Sections (Section 3.1.4, 3.2.4, 3.4.4, 3.5.4, 3.6.4, 3.7.4, 3.8.4, 3.9.4, 3.10.4, and 3.11.4) the Permittee states that "[p]rior to excavation backfill, Trace Analysis of Lubbock, Texas, analyzed confirmation soil samples to verify that clean-up objectives were met. The confirmation sidewall sample locations were

preferentially selected in locations most likely to contain residual diesel contamination in any sidewall based on observation during excavation. Personnel collected samples directly from the backhoe bucket after directing the operator where to excavate the sample. Personnel then transferred discrete soil samples from the bucket into a stainless steel bowl prior to filling the appropriate sample container (4 ounce glass jar). Confirmation samples were analyzed for VOCs, SVOCs, TPH DRO, and total RCRA metals."

It is not clear if WSMR composited the discrete samples in the stainless steel bowl. Samples tested for DRO, VOCs, SVOCs, and confirmation samples cannot be composite samples. In addition, samples collected for analysis of volatile organics must be collected with minimal disturbance; therefore, transferring a soil sample from a backhoe bucket to a steel bowl and then to a sample container in unacceptable and invalidates the VOC analyses. The Permittee must revise the Report to clarify the confirmation sample collection process.

2. According to the key, Figure 2 (Plan View Map of the Denver Site) shows where the Petroflag® sample locations were located; however, they are not identified on the figure. The Permittee must revise the Report and provide a corrected Figure 2 depicting the Petroflag® sample locations, or otherwise resolve the discrepancy.
3. The Permittee is not clear regarding whether or not confirmation samples were collected from the northern excavation at the Denver Site. Figure 2 (Plan View Map of the Denver Site) does not show confirmation sample locations and Table 4 (Laboratory TPH DRO and RCRA Metals Confirmation Sample Results Denver Site) does not list any confirmation samples for the northern portion of the site. If confirmation samples were not collected, the Permittee must collect confirmation samples from the sidewalls and base of the excavation for laboratory analysis. If confirmation samples were collected, the Permittee must revise the Report to present the data and include the sample locations on Figure 2.
4. In Section 3.2.2 (Results of Corrective Action (2006-2007 ACA)), page 30, the Permittee states "[c]rews ultimately extended the excavation at the former AST at Hardin-02 to a depth of approximately 12 ft bgs. The sides of the excavation measured approximately 16 ft x 10 ft and personnel ran six test kits using the Petroflag ® system at Hardin-02. Results ranged from 96 mg/kg to 2,354 mg/kg full range hydrocarbons. Petroflag ® results higher than NMED THP Screening Guidelines initiated further excavation." It is not clear whether or not the measurements (12 ft x 16 ft x 10 ft) were the final dimensions or if the excavation was extended after the PetroFlag® indicated contamination was still present. The Permittee must revise the Report to identify the final dimensions of the excavation.

5. In Section 3.4.2 (Verification of Remediation) on page 46 the Permittee states, that "[p]ersonnel ultimately extended excavation at the former AST at Harriett to a depth of approximately 14.5 ft bgs. The sides of the excavation measured approximately 8 ft x 15 ft. Six test kits were run using the Petroflag ® system (table 12). Results ranged from 59 mg/kg to 2,190 mg/kg full range hydrocarbons. PetroFlag ® results greater than 520 mg/kg (TPH Screening Level) elicited further excavation."

It is not clear whether the measurements (14.5ft x 18ft x 15ft) were the final dimensions or if the excavation was extended after the PetroFlag® indicated contamination was still present. The Permittee must revise the Report to identify the final dimensions of the excavation.

6. In Section 3.8.2 (Results of Corrective Action), page 85, paragraph 2, the Permittee states "[r]esults ranged from 16 mg/kg to 2,526 mg/kg full range hydrocarbons, which was well below the 520 mg/kg TPH Screening Guideline." This statement is not correct, since 2,526 mg/kg is greater than the 520 mg/kg limit. The Permittee must revise the Report to correct this statement.
7. In Section 3.8.4 (Verification of Remediation) (EC-50) states that a confirmation sample (CF-001) obtained at the base of the excavation at 32 feet contained a concentration of 249 mg/kg of TPH DRO. Confirmation samples (CF-002 and CF-008) in the vicinity of that sample display concentrations of <50 mg/kg TPH DRO. An increase in the DRO concentration may be indicative of migration of contamination, even though the 249 mg/kg concentration is less than the 520 mg/kg SSL. The Permittee must ensure that the vertical extent of contamination is defined. The Permittee must advance a boring at this location to depths below the base of the excavation adjacent to the location of CF-001 and submit soil samples collected below the depth of 32 feet for TPH DRO analysis.
8. In Section 4.0 (POL Sites Not Requiring Corrective Action), the Permittee does not provide sufficient detail regarding position of the borings. For example, at the RAM site, the logic behind the boring location is not clear; were the locations selected based on the stain observed at the site, the location of the concrete pad, or other factors? The Permittee must revise the Report to explain the rationale for the location of the borings at each site.
9. In Section 5.0 (No Further Action Proposal), the Permittee asserts that it "has removed contaminated soil to proper disposal at an offsite permitted facility and replaced the sites with clean backfill material. Contaminated material and contaminant sources have been removed from the sites and do not pose a risk to potential receptors." The Permittee also states in Section 5.2 (Criterion) that "[t]he criterion applied to this site is NFA Criterion 5 as described by the NMED: The SWMU has been characterized [and] remediated in accordance with current applicable State or Federal regulations, and the available data

Thomas A. Ladd
July 28, 2010
Page 4

indicate that contaminants pose an acceptable level of risk under current and projected future land use." When corrective action is complete at these sites, the Permittee must submit a request to NMED to modify the Permit to change the status of the site from "corrective action required" to "corrective action complete."

The Permittee must address all comments in this NOD and submit a revised Report. The revised Report must be accompanied with 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 must be submitted identifying where all changes were made to the Report in red-line strike-out format. The revised Report must be submitted to NMED no later than September 15, 2010. Additional work, whether required by NMED or recommended by the Permittee will be addressed upon NMED review of the revised Report.

If you have any questions regarding this letter, please call Kristen Van Horn at (505) 476-6046.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
K. Van Horn, NMED HWB
R. Peters, WSMR
J. Gallegos, WSMR
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File: WSMR 2010 and Reading
WSMR-08-004