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State of New Mexico
ENVIRONMENT DEPARTMENT

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ENTERED

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 17, 2001

Howard E. Moffitt
Deputy Base Engineer
49 CES/CD
550 Tabosa Avenue
Holloman Air Force Base, NM 88330-8458

**SUBJECT: NOTICE OF DEFICIENCY: SWMU 123
HOLLOMAN AIR FORCE BASE
EPA ID NUMBER: NM6572124422
TASK #: HWB-HAFB-01-007**

Dear Mr. Moffitt:

Pursuant to its authority under the New Mexico Hazardous Waste Act, N.M.S.A. 74-4-1 et seq., and regulations promulgated pursuant thereto, the Hazardous Waste Bureau (HWB) of the New Mexico Environment Department (NMED) has reviewed the letter report submitted by Holloman Air Force Base (HAFB) requesting a risk-based no further action (NFA) for the petroleum-oil-lubricant (POL)-contaminated soil at solid waste management unit (SWMU) 123.

Following review of the letter report, HWB has made a determination that additional information is required prior to making a final determination for NFA. The enclosed attachment lists the comments that HAFB must address and submit to NMED for review and NFA determination.

Please submit the requested information to HWB within sixty (60) calendar days from the date you receive this letter and the attached notice of deficiency (NOD). NMED HWB may consider a petition for a deadline extension, provided that a written justification and the expected submittal time are given.

RED HAFB/01

Mr. Howard Moffitt
August 17, 2001
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Please present the required information in two hard copies and on a 3.5" diskette compatible with MS Word.

If you have any questions regarding this NOD please contact Cornelius Amindyas of my staff at (505) 841-9488, or at the above address.

Sincerely,

James P. Bearzi
Chief

Hazardous Waste Bureau

JPB:ca

cc: John E. Keiling, NMED HWB
Will Moats, NMED HWB
Cornelius Amindyas
Kirby Olson, NMED HWB
David Neleigh, EPA Region VI (6PD-N)
John Poland, HAFB
Jose Gallegos, HAFB
File: Red HAFB 01 and Reading

ATTACHMENT
NOTICE OF DEFICIENCY ON SWMU 123, [BUILDING 704, WASTE OIL TANK]
HOLLOMAN AIR FORCE BASE
August 17, 2001

The following is a list of comments that the New Mexico Environment Department (NMED) Hazardous Waste Bureau compiled following review of Holloman Air Force Base (HAFB) letter report titled "Results of additional soil sampling for remediation of the POL-Contaminated SWMU 123, at Holloman Air Force Base."

HAFB must address these comments and submit the required information to NMED to enable HWB make a final determination for NFA on the subject SWMU.

COMMENT #:

1. The sampling results for BTEX given in Table 6-1 exceed the NMED soil screening levels (SSLs) for protection of groundwater (DAF=20) for ethylbenzene, toluene, and xylene in sample SWMU123-SB-C-9. The migration to groundwater SSLs are relevant at this site because the groundwater table is only 15-30 ft below ground surface. Also, the sampling results showed elevation of these three constituents at all of the deep samples and the text refers to excavation of contaminated soil near the washrack to the groundwater table. **Most importantly, the above sample contains ethylbenzene at a concentration almost double the saturation-based direct exposure NMED SSL. This means that there is substantial chance that free product may be present in the soil under the washrack.** The potential for groundwater contamination and for free product in the soil are not addressed in this document, so potential risk pathways have not been adequately addressed in the document.
2. It is not possible to assess whether there may be risks from other RCRA constituents at the site, because sampling results are submitted only for BTEX and TRPH. The TRPH levels are quite high, particularly at 8-9 ft, so there is no assurance that individual constituents don't exceed the risk-based guidelines issued by NMED. Since the site collected waste oil, there may also be concerns about risks from metals; no sampling results are submitted for metals in the letter report. The sampling results given in this NFA proposal are inadequate for determining if there is residual risk from contaminants remaining at the site; the sampling analysis should have been for RCRA constituents to allow for comparison to risk-based cleanup levels.
3. This document does not present a valid risk assessment to support the requested risk-based NFA due to the deficiencies mentioned above. HAFB should therefore conduct further investigation to delineate the nature, horizontal and vertical extent of the contaminant plume by sampling for RCRA constituents, pH, and metals at SWMU 123.

4. HAFB should address free product during the investigations, since elevated concentration of ethylbenzene and TRPH with depth in the soil samples strongly suggests the possibility that free product exists below.
5. Provide a site plan (with a scale and north arrow) that shows the locations of the concrete pad, the waste oil tank, the boring locations, the limits of the remedial excavation, all soil sample locations, surrounding site structures (including the office building 704), any subsurface structures such as USTs, utility lines, storm drains, manholes, and any surrounding monitoring wells.
6. Provide information on the containment of wash water on the pad, and explain whether it drains off the sides of the pad, is there a drain or sump and associated drain lines, are there sewer lines or tanks? And, if present, has HAFB investigated these structures previously? Earlier studies conducted in 1994 did not cover/discuss these.
7. Provide the analytical methods and detection limits for each chemical analysis performed for all past and future sample analyses. NMED recommends that sample analysis values be reported as less than instrument detection limits, versus a non-detect (**ND**) reporting.
8. Drill one boring at the downgradient end of the concrete pad, since the letter report indicates that HAFB's deepest soil boring only reached a maximum depth of 9 feet below ground surface. The new boring should be drilled to a minimum depth of 5 feet below the seasonal low water table elevation and also to apparent clean soil based on field screening. Soil samples should be collected at 2.5-foot intervals or continuously from the boring. HAFB should submit the soil sample collected from immediately above the water table, from the base of the boring and also the most contaminated sample (based on field screening) to a laboratory for analysis of gasoline range organics (**GRO**), diesel range organics (**DRO**) and oil range organics (**ORO**) by EPA Method 8015M, VOCs by EPA Method 8260, SVOCs by EPA Method 8270 and RCRA metals (i.e., **Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver**).
9. HAFB should install a monitoring well in the boring with a screened interval that extends above the water table. HAFB should test for phase-separated hydrocarbons. If there is no free product then HAFB must collect groundwater samples for analyses of GRO, DRO, ORO, VOCs, SVOCs and RCRA metals.
10. If the waste oil UST was in a different location, HAFB must install a well there also as described above and add PCBs to the soil sample analytical suite.
11. If HAFB doesn't have information on the direction of groundwater flow, it must install a minimum of 3 wells so that it can determine and indicate the groundwater flow direction at the site.

12. NMED is suggesting analysis of VOCs by EPA Method 8260 because solvents may have been used at the wash rack and would have been discharged to the waste oil UST. Therefore HAFB should check for HVOCs. If HAFB already has some of this information, then just test for BETX (EPA Method 8021B or the latest version will do).
13. Submit a work plan to complete this work within 60 calendar days from the date HAFB receives this Attachment and the cover letter. Based on the results of the investigation, NMED may require further investigation and possibly corrective action. Further, should the POL contamination be limited to soil, HAFB could consider excavating and disposing of the contaminated soil appropriately to protect the health of the office workers in the building(s) located near SWMU123.

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