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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 7, 2009

Mr. David Scruggs, Chief  
Environmental Restoration Program  
49 CES/CEVR  
550 Tabosa Ave.  
Holloman AFB, NM 88330-8458

**SUBJECT: NOTICE OF DISAPPROVAL: RESPONSE TO THE NOTICE OF  
DISAPPROVAL FOR THE RCRA FACILITY INVESTIGATION WORK  
PLAN SWMUs 122 AND 123, JUNE 2009  
HOLLOMAN AIR FORCE BASE, NM, EPA ID# NM6572124422  
HWB-HAFB-08-009**

Dear Mr. Scruggs:

The New Mexico Environment Department (NMED) has reviewed Holloman Air Force Base's (the Permittee's) August 18, 2009 response to NMED's May 22, 2009 Notice of Disapproval (NOD) for the RCRA Facility Investigation Work Plan for the performance of additional site characterization activities SWMUs 122 and 123. NMED has determined that the response does not adequately address the issues raised in the NOD. The following are the remaining deficiencies the Permittee is required to address before the NMED can approve the Work Plan:

**GENERAL COMMENTS**

1. The Work Plan only addresses human health risk assessment. While there is some mention of non-human receptors in the Work Plan and Section 4.4 identifies potential receptors present at the site, there is no specific discussion of how an ecological risk assessment will be conducted. The Permittee must either provide sufficient evidence to justify why an ecological risk assessment is not warranted (i.e., lack of sufficient

habitat due to small area and industrial uses) or revise the Work Plan to include the methodology that will be used to assess ecological risk.

2. The Work Plan includes use of NMED screening levels from the 2006 NMED Soil Screening Guidance and Region 6 Medium Specific Screening Levels (MSSLs) dated 2008. Please note that NMED updated the 2006 Screening Guidance; the current version is dated August 2009 version and is available on-line (<http://www.nmenv.state.nm.us/hwb/guidance.html>). Region 6 MSSLs are no longer applicable and have been replaced by the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) located at [http://www.epa.gov/region06/6pd/rcra\\_c/pd-n/screen.htm](http://www.epa.gov/region06/6pd/rcra_c/pd-n/screen.htm). All data collected as part of this Work Plan (and all previously collected data combined with the proposed data) must be compared to the 2009 NMED Screening Levels. If an NMED screening level is not available, then data should be compared to the 2009 RSLs. In the event that neither an NMED screening level, an RSL, or appropriate surrogate data are available, potential risks of the constituent must be addressed in the uncertainties section of the risk assessment. The Permittee must revise the Work Plan accordingly.

### **SPECIFIC COMMENTS**

3. **Page 1-2, Section 1.1, 5<sup>th</sup> Bulleted Item**

This bullet was added to address the “site-specific” risk assessment protocol contained in Section 7. This Section also includes the methodology for conducting the initial generic screening assessment to determine whether additional risk evaluation is warranted. The Permittee must revise this bullet to remove the reference to site-specific risk assessment and reference only risk assessment methodologies.

4. **Page 7-1, Section 7.1**

This section indicates that all constituents of potential concern (COPCs) will be compared to the analyte-specific screening levels (NMED screening levels, RSLs, or NMED total petroleum hydrocarbon guidance screening levels). However, the text does not indicate if any conclusions will be drawn from the comparison. The Permittee must clarify the intent of this section.

5. **Page 7-3, Section 7.2.4**

This section indicates that the maximum detected concentration will be compared to the risk-based screening levels referenced in Sections 6.2.1.1 (soil) and 6.2.1.2 (groundwater). The text is not clear that the cumulative risk/hazard will be determined, and that only if cumulative risk and/or hazard are below the NMED target levels (1E-05 for carcinogens and hazard index of 1.0 for noncarcinogens) will

the site be proposed for no further action. The Permittee must clarify the text to indicate that cumulative effects will be determined.

6. **Page 7-3, Section 7.2.4**

As noted in both the technical guidance for the NMED screening levels and the RSLs, the use of the generic screening levels is appropriate only for those exposure pathways used in developing the screening levels. Inhalation of vapors from the vapor intrusion pathway is not included in the generic screening levels. If volatile organic compounds (VOCs) are present in either soil or groundwater and are identified as COPCs, then the risks/hazards via the vapor intrusion pathway must be determined and combined with the risks/hazards contributable from the generic screening levels. Evaluation of the vapor intrusion pathway is not limited only to a site-specific risk assessment. The Permittee must revise this section accordingly.

7. **Page 7-3, Section 7.2.5**

In the event that a site-specific screening level needs to be calculated, the Work Plan indicates that toxicological data provided in the NMED screening guidance will be used. The toxicological data provided in the screening tables is for reference only, to indicate the current toxicological data that were available and used at the time the screening levels were derived. A review of toxicological data (following the hierarchy of sources listed in the NMED Soil Guidance) should be conducted prior to calculating a site-specific screening level to ensure that the most recent toxicological data are being used. In the event that a screening level provided in the NMED tables has not been updated to reflect new toxicity data, the potential for under/over-estimation of risk/hazard should be addressed in the uncertainties analysis of the risk assessment. The Permittee must revise this section accordingly.

8. **Page 7-3, Section 7.2.5**

The Work Plan proposes to calculate risk ratios based upon the 2006 NMED Soil Guidance. However, the use of the term hazard index is somewhat confusing, as this infers only non-carcinogenic hazard will be assessed. The preferred method is to determine cumulative risk. However, while use of the ratio may still be applied if preferred by the facility, the Permittee must replace the term "hazard index" with "risk ratio."

9. **Page 7-3, Section 7.2.5**

The text addressing development of site-specific screening levels is vague. It appears that if site concentrations are above the generic screening levels, then site-specific parameters (mostly geological and hydrogeological) will be used to fine-tune the generic levels. However, the Work Plan does not provide any discussion as to what steps will be taken in the event that site concentrations are above the site-specific

screening levels. The Permittee must add some clarifying text that, in the event site concentrations are above the site-specific screening levels, either removal actions and/or a site-specific risk assessment will be conducted.

10. **Page 7-3. Section 7.2.6**

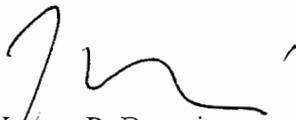
The text does not provide specific discussion as to what constitutes a “representative” site concentration. The Permittee must revise the Work Plan to provide additional detail. Also note that NMED and EPA guidance recommend the use of the 95% upper confidence level (UCL) of the mean as the exposure point concentration in risk assessments. The UCL should be determined using distributional-based statistical methods (e.g., EPA’s ProUCL).

11. **Page 7-3. Section 7.2.6**

The Johnson and Ettinger (J&E) model is appropriate for determining exposure concentrations via the vapor intrusion scenario. However, because the J&E model is several years old, the toxicological data included in the model is not current and thus the model shall not be used to calculate resulting risk/hazard. The Permittee must revise this section accordingly.

Please submit the revisions required in this Notice of Disapproval by December 7, 2009. If you have any questions regarding this matter or if you would like to discuss the comments prior to your response, please contact David Strasser of my staff at (505) 222-9526.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
W. Moats, NMED HWB  
C. Amindyas, NMED HWB  
D. Strasser, NMED HWB  
L. King, EPA, Region 6 (6PD-F)  
File: HAFB 2009 and Reading  
HWB-HAFB-08-009