



May 30, 2007

DCN 06280.150.ID.007

Mr. David Cobrain
State of New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building One
Santa Fe, New Mexico 87505-6303

Reference: Work Assignment No. 06280.150; State of New Mexico Environment Department, Santa Fe, New Mexico; Risk Assessment Support; Review of the Response to Comments on the Notice of Deficiency, "Corrective Measures Study at SWMUs 31, 48a, 77, and 127, Cannon AFB, NM, EPA ID No. NM7572124454," dated June 2000, Task 2 Deliverable.

Dear Mr. Cobrain:

This letter serves as the deliverable for the above-referenced work assignment and addresses the facility's response to the risk assessment comments (RTC document) in the Notice of Deficiency for the Remedy Completion Report for the Corrective Measures Study at SWMUs 31, 48a, 77, and 127, Cannon AFB, NM dated June 2000 (CMS Report).

The responses to the risk assessment comments are adequate as presented with the following exceptions: Specific Comments 10 and 19 which address the use of more current toxicity values; and Specific Comments 13, 15, 18 and General Comment 3 which address the exclusion of a vapor intrusion evaluation of volatile organic compounds (VOCs).

In responding to Specific Comments 10 and 19, the Permittee did not indicate that a review of more current toxicity data would be performed and there is no indication in the RTC document that such a review was undertaken. The New Mexico Environment Department (NMED) recognizes that the June 2000 CMS Report was based on the most current methodology available at the time. To ensure that the conclusions drawn from the 2000 analysis have not changed, NMED requested, through Specific Comments 10 and 19, that the Permittee conduct a thorough review of current toxicity data and United States Environmental Protection Agency (EPA) Region 6 media-specific screening levels (MSSLs). Further, NMED requested that the CMS Report be revised, as appropriate, based on the results of the review.

In evaluating the Permittee's responses to Specific Comments 10 and 19, NMED conducted a qualitative comparison of the screening values used in the June 2000 CMS versus the most current soil screening levels (SSLs) published in NMED's *Technical Background Document for Development of Soil Screening Levels, Revision 4.0*, Hazardous Waste Bureau and Ground Water Quality Bureau, Voluntary Remediation Program, June 2006. SSLs are similar to MSSLs;

Mr. David Cobrain
May 30, 2007
Page 2

however, SSLs are based on a target risk level of 1×10^{-5} for carcinogens while risk-based MSSSLs are based on a target risk level of 1×10^{-6} . Based on this qualitative comparison of site data against the current NMED SSLs, NMED has determined that the conclusions presented in the June 2000 CMS will not change and thus, remain valid.

In responding to Specific Comments 13, 15, and 18 and General Comment 3, the Permittee noted that VOCs were detected infrequently at low concentrations and that the vapor intrusion pathway was not considered to be significant. No additional supporting information was provided.

NMED utilized EPA's Johnson and Ettinger (J&E) vapor intrusion soil screening model, SL-Screen-Feb04.xls (www.epa.gov/oswer/riskassessment/airmodel/johnson_ettinger.htm), to determine if additional analysis of the vapor intrusion pathway might be warranted. NMED ran the SL-Screen-Feb04.xls J&E model in back-calculation mode under the following assumptions:

- Maximum detected concentrations of the more toxic VOCs from Tables 5-5, 6-9 and 7-6 (note the highest maxima were identified in Table 7-6) were used;
- NMED target risk of 1×10^{-5} or a target hazard quotient of 1.0 was specified;
- Sandy loam along with leaky soil properties were specified; and
- Average flow rate into the building (Qc) was left blank allowing the spreadsheet to calculate this value.

Based on this qualitative screening analysis, NMED determined that residual concentrations of VOCs at SWMU-127 may pose a potential vapor intrusion concern because the maximum concentrations of a subset of VOCs are above the target screening level concentration as follows:

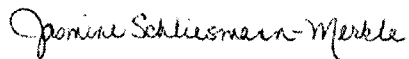
<u>Site</u>	<u>Chemical</u>	<u>Maximum Concentration (mg/kg)</u>	<u>Target Concentration to Protect for Indoor air (mg/kg)</u>
SWMU-127	Ethylbenzene	54	25
	Benzene	3.8	0.021
	Tetrachloroethene	0.0029	0.021
	Toluene	82	5.8
	Xylenes	260	3

NMED has documented these findings and is furnishing this information to the Permittee for the administrative record for the site. Because application of the currently accepted screening tool for the vapor intrusion pathway shows that concerns may exist over potential vapor intrusion at some facility sites, the Permittee must perform an analysis of this exposure pathway. This analysis should include additional lines of evidence, other than frequency of detection, that establish the significance of the vapor intrusion pathway at facility sites. Examples of acceptable lines of evidence include but are not limited to: site-specific applications of the J&E model, descriptions of the distribution of the data to support the absence of a VOC source and collection of soil gas samples.

Mr. David Cobrain
May 30, 2007
Page 3

Our deliverable is formatted in Microsoft Word®. The deliverable was emailed to you on May 30, 2007 at david.cobrain@nmenv.state.nm.us and to Mr. Swarna Latha Vonteddu at swarna.vonteddu@state.nm.us. A formal hard (paper) copy of this deliverable will be sent via U.S. Mail. If you have any questions, please call me at (770) 752-7585, extension 105 or Ms. Claire Marcussen at (352) 332-0669.

Sincerely,



Jasmine Schliesmann-Merkle
Program Manager

Enclosure

cc: Mr. Swarna Latha Vonteddu, NMED
Ms. Claire Marcussen, TechLaw, Inc.
Ms. Mandy Ford, TechLaw, Inc.
NMED Files