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ENTERED

July 25, 2006

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 for Other Facilities; Review of Response to Comments on the Closure Certification Report, McGregor Range Open Detonation (OD) Unit Fort Bliss Otero County, New Mexico, Task 2 Deliverable.

Dear Mr. Cobrain:

Attached please find a draft deliverable for the above-referenced work assignment. The deliverable addresses the review of the response to comments on the "Closure Certification Report, McGregor Range Open Detonation (OD) Unit Fort Bliss Otero County," New Mexico and dated December 2005.

This deliverable was emailed to you on July 25, 2006 at David.Cobrain@state.nm.us to Ms. Tammy Diaz-Martinez at Tammy.Diaz@state.nm.us. A formalized hard (paper) copy of this letter deliverable will be sent via mail. If you have any questions, please call me at (303) 763-7188 or Ms. Paige Walton at (801) 451-2978.

Sincerely,

June K Dreith
June K. Dreith
Program Manager

Enclosure

cc: Tammy Diaz-Martinez, NMED
Ms. Paige Walton, TechLaw
Dallas/TechLaw Files



TASK 2 DELIVERABLE

**REVIEW OF THE RESPONSE TO COMMENTS ON THE
CLOSURE CERTIFICATION REPORT
MCGREGOR RANGE OPEN DETONATION (OD) UNIT,
FORT BLISS, NEW MEXICO**

Risk Assessment of Other Facilities

Submitted by:

**TechLaw, Inc.
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Westminster, CO 80030**

Submitted to:

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

In response to:

Work Assignment No. 06280.150

July 25, 2006

**REVIEW OF THE RESPONSE TO COMMENTS ON THE
CLOSURE CERTIFICATION REPORT
MCGREGOR RANGE OPEN DETONATION (OD) UNIT,
FORT BLISS, NEW MEXICO**

Unless otherwise noted below, the response to the comment was deemed adequate as presented.

Specific Comment 1: The original comment requested that a table that clearly shows what site data were used to compare to the New Mexico soil screening levels (SSLs) and the corresponding risk/hazard levels be included in the report. The response indicated that since the data were being compared to the SSLs, which are risk-based numbers, the cumulative risk/hazard does not require calculation. This response is not adequate. While individual constituents are compared to the SSLs and on an individual basis the residual concentrations may be less than the SSLs, the cumulative risk and hazard must also be evaluated when making risk-based decisions. It is possible that individually the risk/hazard levels are acceptable, but when cumulative risk/hazard is assessed, the target risk level (1E-05) and hazard level (1.0) may be exceeded.

Using the data provided in Table C-3 with the response to comment package, the associated risk and hazard were estimated. Arsenic is the only carcinogen. As shown in the table below, using the maximum detected concentrations, both the pre-remediation and the post-remediation risks are above the New Mexico target risk level of 1E-05. Applying the 95% upper confidence level of the mean (95% UCL) for the pre-remediation data also results in a risk level above the target risk level. However, the post-remediation 95% UCL results in a cumulative risk (9.38E-06) within the target risk level.

For the noncarcinogenic constituents of concern, both the individual hazard quotients (HQs) and the overall hazard index (HI) were below the target level of 1.0. Please note that New Mexico has released the 2006 version of the New Mexico SSLs. The 2006 values were compared to the data applied in the closure certification report. New SSLs are available for barium and cadmium. However, the use of the 2006 data do result in either a HQ or the HI being greater than the target level of 1.0.

Table 1. Estimation of Cumulative Risk and Hazard.

Metal	Minimum	Maximum	95% UCL	NM SSL residential soil	C/NC	Risk (Max)	Risk (95% UCL)	Hazard
antimony	1.01	0.974		31.3	NC			0.031118
arsenic - pre	0.602	20.3	4.83	3.9	C	5.21E-05	1.24E-05	
arsenic - post	0.602	6.37	3.66	3.9	C	1.63E-05	9.38E-06	
barium	15	139		5450	NC ^a			0.025505
beryllium	0.242	0.677		156	NC			0.00434
cadmium	0.097	6.48		74	NC ^b			0.087568
chromium	1.35	13.5		100000	NC			0.000135