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ENTERED



RON CURRY
Secretary

SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 30, 2010

George J. Rael
Environmental Operations Manager
Los Alamos Site Office
Department of Energy
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Michael J. Graham
Associate Director Environmental Programs
Los Alamos National Security, LLC
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Los Alamos, NM 87545

**RE: REQUIREMENT TO DISCONTINUE USE OF B&K MULTIGAS ANALYZER
FOR FIELD SCREENING OF VOLATILE ORGANIC COMPOUNDS AT
MATERIAL DISPOSAL AREAS G, H, AND L, AT TECHNICAL AREA 54
LOS ALAMOS NATIONAL LABORATORY, EPA ID No: NM0890010515**

Dear Messrs. Rael and Graham:

The New Mexico Environment Department (NMED) has received the United States Department of Energy and the Los Alamos National Security, LLC (collectively, the Permittees) *Response to the Review of the Periodic Monitoring Report for Vapor-Sampling Activities at Material Disposal Area H, Solid Waste Management Unit 54-004, at Technical Area 54, Second Quarter Fiscal Year 2010*, dated July 22, 2010 and referenced by EP2010-0312.

The Permittees concurred with NMED that the use of the Brüel and Kjaer (B&K) analyzer to field screen for volatile organic compounds (VOCs) in the subsurface at Material Disposal Area (MDA) H is not useful because there is no significant correlation between the field-screening and fixed analytical laboratory results. The Permittees suggest that it is because low concentrations of VOCs prevalent at MDA H fall below the detection range of the instrument. The Permittees agreed to discontinue all field screening at MDA H using B&K instrument. However, the Permittees propose to continue using the B&K multigas analyzer for VOC field screening at MDAs G and L.

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The Permittees assert that at MDA G and L, where detected VOCs concentrations are significantly higher than at MDA H, the B&K instrument provides useful correlation between field-screening and analytical laboratory results. Because of a lack of correlation between field-screening results and laboratory data the Permittees propose to discontinue reporting field screening results for Freon and tetrachloroethene at MDA G and L. NMED does not concur with the Permittees' proposal to continue field-screening for 1,1,1 trichloroethane (TCA) and trichloroethene (TCE) using B&K instrument. The field-screening results for TCA and TCE in fact, do not correlate with the analytical results as shown in the example provided below. Table 4.0-2 (*Field-Screening Results Using B&K Multigas Analyzer at MDA G*) in the *Periodic Monitoring Report for Vapor-Sampling Activities at MDA G, at TA-54, for FY 2009*, dated January 2010 (referenced by LA-UR-10-0269/EP2010-0013) provides field-screening results for boreholes at MDA G and Table 5.0-1 (*Pore-Gas VOCs Detected at MDA G*) provides the analytical results for the borehole 54-01107.

Quarter	Depth (ft) Borehole 54-01107	TCA		TCE	
		Field Screening Results	Analytical Laboratory Results	Field Screening Results	Analytical Laboratory Results
1st Qtr FY08	56.5	-239,000	Not Sampled	3830	Not Sampled
4th Qtr FY08	56.5	124,000	16,000	10,800	330
4th Qtr FY09	56.5	129,000	15,000	6290	330

*results are in ug/m3

The screening results not only do not comport with the analytical results for TCA and TCE, they differ by several orders of magnitude. The B&K therefore does not provide useful field-screening data at MDA G or MDA L and the Permittees must discontinue using it for field-screening activities.

The Permittees use results of field-screening to guide collection of samples for laboratory analyses. Using a field instrument that detects only two organic chemicals out of many potential VOCs that are present at the site may result in not collecting samples from locations that may have higher concentrations of VOCs other than or in addition to TCA or TCE. The Permittees must instead use a photo ionization detector equipped with an 11.7 eV lamp or other appropriate alternate instrument to field screen for the presence of VOCs.

Messrs. Rael and Graham
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Please contact Neelam Dhawan of my staff at (505) 476-6042 should you have any questions.

Sincerely,



James Bearzi
Chief
Hazardous Waste Bureau

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