

TA-16

LANL 2004



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 428-2500
Fax (505) 428-2567
www.nmenv.state.nm.us



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

(TA 16)

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

May 12, 2004

David Gregory, Federal Project Director
Los Alamos Site Office
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, NM 87544

G. Pete Nanos, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, NM 87545

**RE: NOTICE OF DISAPPROVAL FOR THE INVESTIGATION WORK PLAN FOR
THE TA-16-340 COMPLEX, SOLID WASTE MANAGEMENT UNITS 13-003(a)-
99, 16-003(n)-99, 16-003(o), 16-026(j2), AND 16-029(f) AT TECHNICAL AREA 16
LOS ALAMOS NATIONAL LABORATORY, NM0890010515
HWB-LANL-04-004**

Dear Mr. Gregory and Mr. Nanos:

The New Mexico Environment Department (NMED) has received Los Alamos National Laboratory's *Investigation Work Plan for the TA-16-340 Complex, Solid Waste Management Units 13-003(a)-99, 16-003(n)-99, 16-003(o), 16-026(j2), and 16-029(f) at Technical Area 16* dated March 2004 and referenced by LA-UR-04-1466 (ER2004-0095). NMED has reviewed this document and is issuing a notice of disapproval. LANL must respond to the comments as outlined in the attachment to this letter within thirty (30) days of receipt of this letter.



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Mr. David Gregory and Mr. Pete Nanos

May 12, 2004

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Should you have any questions, please feel free to contact me at (505) 428-2548.

Sincerely,



Darlene X. Goering

Project Leader

Permits Management Program

cc: J. Bearzi, NMED HWB
D. Goering, NMED HWB
C. Voorhees, NMED DOE OB
S. Yanicak, NMED DOE OB, MS J993
L. King, EPA 6PD-N
J. Vozella, DOE OLASO, MS A316
B. Ramsey, LANL RRES/DO, MS M591
D. McInroy, LANL E/ER, MS M992
N. Quintana, LANL E/ER, MS M992
file: Reading and LANL

ATTACHMENT

Investigation Work Plan for the TA-16-340 Complex SMWUs 13-003(a)-99, 16-003(n)-99, 16-003, 16-026(j2), and 16-029(f)

1. Section 2.5 Potential Receptors, pg. 8:

Permittees Statement: "Receptors potentially exposed to contamination at the TA-16-340 Complex include the following: on-site environmental workers, trail users, and construction (or D&D) workers. These are the receptors that were identified and approved by NMED for use in the TA-16-260 outfall corrective measures study (CMS) (NMED 1998, 62327.1; LANL 2003, 77965, p. 6-3). In this report, however, the industrial outdoor worker scenario is used for establishing interim soil cleanup levels. Use of this scenario is protective of all of the above workers because an industrial outdoor worker would spend the most time at the site."

NMED Comment: According to the Department's *Technical Background Document for Development of Soil Screening Levels*, screening levels developed for the industrial worker may not be protective of a construction. Even though the exposure duration for the industrial worker is greater than that of the construction worker, the construction worker has a greater soil ingestion rate due to the type of activities associated with D&D. The Permittees must use both the industrial worker and the construction worker soil screening levels developed by Department in its' SSL guidance (Revision 2.0 now available on the Department's website). For each analyte, the Permittees must use the most conservative of the two soil screening levels as their interim cleanup levels.

2. Section 4.2 General Investigation Strategies for Remediation and Characterization, pg. 22, paragraph 6:

Permittees Statement: "Sample sets from each location will consist of a sample from the surface to 6 in. below the surface (either a pre-existing surface or a surface exposed by excavation) and a sample from 2 ft into tuff. This will ensure that vertical extent has been determined 2 ft below each excavated area".

NMED Comment: This sampling strategy does not include areas that will not be excavated under this plan. For instance, if contamination is encountered below the interim cleanup levels but above background levels, the Permittees must describe how extent will be determined. In areas where existing data show contamination above background levels but below interim cleanup levels, the Permittees must also explain how extent will be determined (see also comment #4).

3. Section 4.2 General Investigation Strategies for Remediation and Characterization, pg. 22, paragraph 8:

Permittees Statement: “Approximately half of the samples spot-tested for HE will be quantitatively screened using the D-Tech HE screening kit (see section 5.1.2) and the results compared to interim action levels. The D-Tech HE screening will include screening for RDX but not TNT....”

NMED Comment: The Permittees are using a field screening method (HE spot test) with a high detection limit (100 ppm) to determine which samples are further analyzed and which areas are possibly remediated. With such a high detection limit and interim action levels as low as 8.5 ppm (RDX), the Permittees risk overlooking areas contaminated with HE that would warrant further investigation and even remediation. The Permittees must solely use the D-Tech HE screening for screening purposes. In addition, the Permittees must explain if and how the D-Tech kits measure other HE compounds such as HMX and expected degradation products.

4. Section 4.2 General Investigation Strategies for Remediation and Characterization, pg. 23, paragraph 5:

Permittees Statement: “To fully characterize the vertical and lateral extent of contamination may require reoccupying sample locations to sample farther into tuff and the collection of additional surface samples within or outside of SWMU boundaries. Additional sampling, if necessary, will be conducted after initial evaluation of nature and extent data for these sites.”

NMED Comment: According to the figures and data tables in the historical investigation report, there are several sampling locations with contaminants above background concentrations that are not part of further investigation or the soil removal. The Permittees must resample those locations to determine vertical extent of contamination (this comment does not include further sampling at SWMU 13-003(a)-99 because it is covered under another comment). Those locations include the following:

- SWMU 16-003(n)-99: Location IDs 16-01530 and 16-01531
- SWMU 16-003(o): Location IDs 16-02024 and 16-01540
- SWMU 16-026(j2): Location IDs 16-01554 and 16-01555

5. Section 4.2.1 Soil Removal, pg. 23, paragraph 3:

Permittees Statement: “Because field screening methods are not available for the quantitative detection of arsenic and PAHs at the interim clean up levels, excavation to remove these COPCs will be guided by data from samples analyzed at off-site laboratories.”

NMED Comment: The Permittees must explain how waiting for results from the off-site analytical laboratories will affect the excavation schedule.

6. Section 4.2.2 Further Site Characterization (SWMU 13-003(a)-99 Characterization Activities), pg 26:

Permittees Statement: "Following D&D removal of utilities, 10 screening samples will be collected from locations spaced at approximately equal intervals along the length of the SWMU."

NMED Comment: Using process knowledge and other available information, the Permittees must ensure that the samples are located below the depths of the former tank and septic lines (e.g., fill or undisturbed soil or tuff).

Permittees Statement: The existing borehole (13-00001) will be drilled 2 ft deeper and sampled to define vertical nature and extent of contamination."

NMED Comment: The Permittees must provide the current depth of the borehole. The Permittees must drill a second borehole to a similar depth at this SWMU to define the extent of contamination at depth. The Permittees must advance both borings at least 5 feet below the base of the former tank location if no contamination is encountered, or 2 feet below the deepest contamination encountered.

7. Section 4.2.2 Further Site Characterization (Alluvial Wells Installation and Monitoring), pg 26:

NMED Comment: In addition to the two proposed wells, the Permittees must install alluvial wells downstream of Fishladder Seep to the Fishladder Canyon/Cañon de Valle confluence to characterize the extent of alluvial groundwater contamination within Fishladder Canyon. The Permittees may extend the HRR survey to the confluence to help determine the location of the additional wells. One alluvial well must be located just above the confluence to determine contaminant contribution to Cañon de Valle.

8. Section 5.1.1 Surface and Subsurface Sampling, pg. 29:

Permitttees Statement: "To minimize the loss of VOCs, samples for VOC analysis will be collected immediately upon recovery using disposable En Core samplers (see SOP-06.31, "Sampling of Sub-Atmospheric Air")."

NMED Comment: The referenced SOP does not contain procedures for sampling with En Core samplers. The Permittees must provide the appropriate SOP or describe the procedures.

9. Section 5.1.3 Fixed Laboratory Analytical Methods, pg. 30, paragraph 2:

NMED Comment: The text lists all of the analytes that will be analyzed for during the investigation. However, earlier the Permittees identified uranium as a COPC at all of the SWMUs except 16-029(f) and 16-026(j2). It is not clear if the Permittees intend to analyze all samples collected from all SWMUs for uranium or only the ones collected from the SWMUs with uranium as a COPC. The Permittees must analyze all samples for uranium

10. Table 1 Industrial Outdoor Worker SSLs and 50% of SSLs, pg. 53:

NMED Comment: The Permittees use the SSLs for an industrial outdoor worker from EPA Region VI as interim cleanup levels. The default exposure parameters for EPA's industrial worker scenario are similar to those for the industrial worker used in the Department's SSL guidance (Revision 2.0 now available on the Department's website). In addition to providing soil contaminant concentrations at or below which there is no unacceptable risk to the public, the Department's SSLs guidance provides concentrations that will not result in leaching of contaminants to groundwater in exceedance of a NM Water Quality Control Commission standard. The Permittees must explain why they are using the EPA values instead of the Department's. The Permittees must use the Department's SSLs (see also comment #1).

11. Section B-2.2 Soil, Sediment and Bedrock Investigation (Evaluation of Inorganic Chemicals), pg. B-5, paragraph 4:

NMED Comment: In their efforts to further determine vertical nature and extent at SWMU 16-026(j2), the Permittees must ensure that sampling locations 16-01554 and 16-01555 are included as part of the area being investigated. According to Table B-6, both of these locations have lead above the background concentration in the first 0.50 ft and deeper samples were not collected as part of the Phase I RFI (see also comment #4).

12. Table B-6 Summary of Samples with Inorganic Chemicals above Background Values in Soil, Sediment, and Tuff at the TA-16-340 Complex, pg. B-19:

NMED Comment: This table should only include laboratory analytical data. Field screening data must not be used to characterize a site or as part of risk assessments. Sample ID 0316-95-0220 is shown as a screening sample on Figure B-1. The Permittees must clarify if this is a screening sample and, thus, should not be included in the table or if it is a laboratory sample.