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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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AUG 22, 1995

Mr. Joseph Vozella
Acting Assistant Area Manager
Environment and Projects
Department of Energy
Los Alamos Area Office
Los Alamos, NM 87544

Dear Mr. Vozella:

The Environmental Protection Agency (EPA) has reviewed and approves the sampling plan submitted for solid waste management units (SWMUs) 15-006(c), 15-006(d), and 15-008(g) in Operable Unit 1086 contingent upon the enclosed list of modifications. Los Alamos National Laboratory may initiate fieldwork on September 5, 1995, as indicated in the schedule and a report will be submitted to EPA on May 22, 1996.

Should you have any questions, please feel free to contact Ms. Barbara Driscoll at (214) 665-7441.

Sincerely yours,

Allyn M Davis

Allyn M. Davis
Director
Multimedia Planning and
Permitting Division

Enclosure

cc: Dr. Ed Kelley
New Mexico Environment Department
Mr. Benito Garcia
New Mexico Environment Department
Mr. Jorg Jansen
Los Alamos National Laboratory



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**List of Modifications
Los Alamos National Laboratory
Technical Area 15**

- 1. 4.0 Data Needs and Data Quality Objectives, p. 6 -**
 - a. Los Alamos National Laboratory needs to revise the data quality objectives (DQOs) for these sites. In order for Los Alamos National Laboratory to calculate the upper confidence limit (UCL) or the mean for risk assessment, at least 10 data points must be assessed. This means 10 sampling points which have acceptable laboratory analysis, and this would normally not include field screening sampling results. In order to meet this DQO, LANL will need to submit 50% of all surface soil samples (0-6 inches) for laboratory analysis.
 - b. LANL shall provide information on the laser-induced breakdown spectrometry (LIBS) field method being used, including the detection limits of the instrument and potential limitations. Results from the LIBS may not be used solely for field screening, but should be used in conjunction with x-ray fluorescence until this technology is proven.
 - c. The high explosive (HE) spot test kit employed by LANL is not sensitive enough to be used to determine the presence of HE below 100 ppm; therefore, LANL shall submit a minimum of four surface samples (0-6 inches) for laboratory analysis from within the first 25 foot grid. At solid waste management unit (SWMU) 15-006(c) this means four samples from the central grid, and four samples from the Optical Diagnostic grid for a total of eight samples submitted for HE analysis (SW 846 method 8330). Additional samples may need to be submitted based on results of the HE spot test kit.
- 2. LANL shall submit a minimum of 50% of the surface drainage samples collected at all SWMUs in this work plan for laboratory analyses. Because the SWMUs in Firing Site R-44 overlap, surface drainage sample results should be used to determine the migration of contamination from the entire area, and can not be attributed to any single source.**
- 3. 5.5 Sampling at Firing Site R-45, PRS 15-006(d) and PRS 15-008(g), p. 8 -**
 - a. LANL shall submit a revised Figure 5-3 which indicates the location of PRS 15-008(g).
 - b. The number of samples being collected at PRS 15-008(g) indicated in text and Table 5-1 do not agree. LANL shall revise the table.

TOPIC:

RFI Work Plan approval at Technical Area 15, Los Alamos National Laboratory

BACKGROUND INFORMATION:

This work plan contains sampling and analysis plans for three solid waste management units (SWMUs) in Operable Unit 1086. Based on records over 75 metric tons of natural and depleted uranium were expended at these firing sites since the Mid-1940s.

Firing Site R-44 contains SWMU 15-006(c) which combines two firing sites which were used for diagnostic tests of weapons components. Previous sampling at Firing Site R-44 indicated high levels of lead, beryllium, and uranium in the top foot of soil.

Firing Site R-45 contains two SWMUs 15-006(d) and 15-008(g). This site was the least used of the sites at Technical Area 15, and was used only for small quantities of explosives.

CURRENT STATUS:

At Firing Site R-44 samples will be collected at three depths (0-6 in., 18-24 in. and at the soil/tuff interface) starting at the firing point and moving out every 25 feet on four radial axis. Samples will be analyzed for metals, total Uranium, tritium and high explosives. Surface drainage leading way from Firing Site R-44 and several other SWMUs will also be sampled for a total of 22 samples. Sampling locations will be biased toward sediment catchments and elevated radiological and metal field-screening readings.

Samples will be collected at the two firing points in Firing Site R-45, and then samples will be collected randomly at fifteen other sampling points based on a 25 foot grid of the site. Surface soil samples will be collected within each drainage leading away from the firing sites.

TECHNICAL CONCERNS:

EPA is requiring additional laboratory analysis of sampling locations for high explosives (HE) and metals. LANL proposed to use primarily field screening for metals and HE sampling points.

COMMUNITY CONCERNS:

No concerns have been received on these sites.

CONTACT/TELEPHONE NUMBER:

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