



TA 03

DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544



MAY 22 2006

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Re: Response to Third Notice of Disapproval for the Investigation Report and Notification of Field Activities, Solid Waste Management Units (SWMUs) 03-010(a) and 03-001(e), Technical Area (TA) 3, Los Alamos National Laboratory (LANL)

Dear Mr. Bearzi,

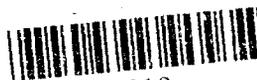
The Department of Energy (DOE) is in receipt of the New Mexico Environment Department's (NMED's) third Notice of Disapproval (NOD) for the Investigation Report for SWMUs 3-010(a) and 3-001(e) at TA 3, dated May 8, 2006. The purpose of this letter is to provide responses to NMED's NOD comments and to provide notification to NMED of field activities to be performed at SWMU 03-010(a). This notification of field activities is being provided in accordance with Section III.O of the March 1, 2005 Compliance Order on Consent (Consent Order).

NMED's third NOD addresses three of DOE's responses to the second NOD: Response #3, Response #4, and Response #6. DOE's required actions for these three responses are discussed below.

NMED's comments on Response #3 indicate that no action is required by DOE.

NMED's comments on Response #4 require DOE to revise text in the Investigation Report to indicate that the drainage to the south and west of Building SM-30 is part of SWMU 03-010(a). This text has been revised and a replacement page for the Investigation Report is enclosed.

NMED's comments on Response #6 require DOE to perform interim cleanup activities, as identified in the first (February 20, 2006) and second (April 3, 2006) NODs. In addition, NMED stated that DOE is not required to submit a formal work plan for these activities. Based on NMED's comments on Response #6, DOE will perform the interim cleanup activities described below and will not submit an Interim Measures Work Plan, as previously indicated in our April 21, 2006 response to the second NOD.



As described in DOE's March 24, 2006 response to the first NOD, recent water level data indicate that the water levels in the three monitoring wells at SMWUs 03-010(a) and 03-001(e) show a large and rapid response to precipitation events. These data provide a strong indication that precipitation is a primary source of the perched groundwater found in these wells. Therefore, as an interim measure, DOE will implement the following activities to better define the source of recharge to evaluate longer-term response actions.

- Installation of pressure transducers in each of the three monitoring wells linked to a data logger to record water surface elevations. Installation of this monitoring equipment is scheduled to take place on or about June 30, 2006.
- Quarterly monitoring. The first round of monitoring is scheduled to take place on or about June 15, 2006. Samples will be submitted for laboratory analysis of volatile organic compounds, semi-volatile organic compounds, total petroleum hydrocarbons (TPH), TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), target analyte list (TAL) metals, gamma-emitting radionuclides, isotopic plutonium, tritium, gross alpha/beta (radiation), anions, and alkalinity.
- DOE will complete a tracer test to determine the source(s) of recharge to the aquifer. The placement of the tracers will be designed to evaluate potential pathways of recharge: 1) leakage from the roof drain manifold system beneath Building SM-30, 2) runoff from the drainage channel west of SM 30, and 3) ponded water from north of the building SM 30.
- DOE will sample the condensate from the evaporative cooler at Building SM-30 and will submit this sample for laboratory analysis of tritium, deuterium, and oxygen (O)-18. This sample will be collected on or about June 30, 2006 or when the cooler is placed in operation, whichever is later.

Information from these interim cleanup activities are intended to support final remedy at this site. DOE plans to dewater the perched aquifer associated with these PRSs, and treat contaminated groundwater once the source of recharge can be controlled. Recommendations for further actions will be submitted to NMED by DOE.

Sincerely,



David R. Gregory, P.E.
Federal Project Director
Office of Environmental Stewardship

ES: 2BE- 017

See page 3 for cc list

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7.0 CONCLUSIONS

Contamination in fill and tuff is generally confined to locations close to Building 03-0030. The general trend for contaminants at SWMU 03-010(a) and 03-001(e) is a decrease in concentration with increase in depth and lateral extent from locations with the highest concentrations near Building 03-0030. Groundwater beneath SWMUs 03-010(a) and 03-001(e) appears to be a relatively small body confined to an area immediately west and possibly projecting beneath Building 03-0030. The majority of inorganic constituents in groundwater are evenly distributed; most organics and radionuclides in the groundwater are concentrated closer to Building 03-0030.

The sections below present a detailed analysis of the nature and extent of inorganic and organic chemicals, and radionuclides in soil and/or fill, tuff, shallow groundwater, and surface water at SWMUs 03-010(a) and 03-001(e). A summary of the risk screening assessments presented in detail in Appendix F, the Risk Assessment Report for SWMUs 03-010(a) and 03-001(e), is also included in this section.

7.1.1 Soil and Tuff

The following subsections present an analysis of the nature and extent of contamination in soil and/or fill and tuff at SWMUs 03-010(a) and 03-001(e).

7.1.1 Nature and Extent of Contamination at SWMU 03-010(a)

The nature and extent of contamination analysis for SWMU 03-010(a) fill and tuff presented in this report is based exclusively on the new data generated during the stage 1 and stage 2 field campaigns conducted in the summer of 2005. Soil and tuff data from previous investigations and the confirmation sampling data collected following the 1994 VCA are not included in the analysis. This approach is based on the following:

1. The soil and tuff within the defined area of SWMU 03-010(a) on the hill slope west of Building 03-0030 has been adequately characterized, and the nature and extent of contamination in the soil and tuff has been defined by previous investigations.
2. Residual contamination remaining within the defined area of SWMU 03-010(a) does not pose a risk to human health and the environment, based on the previous risk assessment.
3. The SWMU 03-010(a) drainage channel extending west and south of Building SM-30 to the confluence with two-mile canyon was characterized in December, 1999; the results of this investigation were submitted to NMED on October 12, 2000, in the Addendum to *RFI Report for Field Unit 1, SWMU 03-010(a) Environmental Restoration Project* (LANL 2000, 46195)
4. Characterization of sediments beyond the drainage channel that is part of SWMU 03-010(a) will be conducted as part of the Pajarito Canyon Investigation, following the "Canyons Approach". Existing data from the SWMU 03-010(a) drainage channel may be included in further evaluations to support the results of the Pajarito Canyon investigation.

These conclusions have been presented previously, and NMED has concurred with these conclusions as indicated in all official correspondences from the administrative authority received following the Laboratory's submittal of the report "Addendum to RFI Report for Field Unit 1, Solid Waste Management Unit (SWMU) 3-010(a)" in October of 2000 (NMED2001, 71422; NMED 2002, 73405; NMED 2004, 89366).

Further, the focus of the 2005 investigation of SWMU 03-010(a) was on the groundwater beneath the site. The soils and tuff were investigated to determine if historical practices associated with SWMU 03-010(a) generated a release in the area between Building 03-0030 and the defined area of SWMU 03-010(a) on the hill slope west of the paved area that could have impacted the groundwater historically or is acting as an on-going source of contamination to the groundwater beneath the site.

Nature and extent at SWMU 03-010(a) has been defined and sampling and analyses confirm that vertical and lateral extent of contamination at the site has been bounded. An individual analysis of the three COPC categories is presented below.