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RON CURRY  
Secretary

JON GOLDSTEIN  
Deputy Secretary

**CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

February 14, 2008

Patty Wagner  
Manager  
Sandia Site Office/NNSA  
U.S. Department of Energy  
P.O. Box 5400, MS 0184  
Albuquerque, NM 87185-5400

Francis B. Nimick  
Deputy Director  
Nuclear Energy & Global Securities Technologies  
Sandia National Laboratories  
P.O. Box 5800, MS 0701  
Albuquerque, NM 87185

**RE: RESPONSE TO PUBLIC COMMENT AND APPROVAL WITH MODIFICATIONS  
SOIL-VAPOR SAMPLING AND ANALYSIS PLAN FOR THE U. S. DEPARTMENT  
OF ENERGY/SANDIA NATIONAL LABORATORIES' MIXED WASTE  
LANDFILL  
SANDIA NATIONAL LABORATORIES, EPA ID NM5890110518  
HWB-SNL-05-025**

Dear Ms. Wagner and Mr. Nimick:

The Soil-Vapor Sampling and Analysis Plan (SV SAP) for the Sandia National Laboratories' (SNL's) Mixed Waste Landfill (MWL) was required by the New Mexico Environment Department (NMED) in the Notice of Disapproval (NOD) issued on November 20, 2006, for the MWL Corrective Measures Implementation Plan. The SV SAP was submitted to the NMED in December 2006 as part of SNL's response to the NOD.

Public comment was received on the SV SAP from February 5, 2007, through March 7, 2007, and from April 15, 2007, through May 15, 2007. Additionally, a public meeting on the SV SAP was held at the Los Griegos Health and Social Services Center in Albuquerque on May 1, 2007. Representatives from the U. S. Department of Energy and Sandia Corporation (Permittees) attended this meeting. A copy of NMED's response to public comment on this matter is enclosed.

Based on our review of the SV SAP, and in consideration of the public comment received NMED hereby approves the SV SAP with the following modifications:

1. Six boreholes for the collection of soil gas and soil samples shall be drilled at the locations shown on the enclosed map (at locations DP1-DP6). Two other boreholes (DP7 and DP8), planned for background locations southwest of the landfill, may be drilled at the background locations as proposed in the SV SAP.

Soil-gas and soil samples from DP1-DP8 are to be analyzed for volatile organic compounds (VOCs) and tritium, as appropriate, as described in the SV SAP. As shown on the enclosed map, the locations for DP4 and DP5 shall be the same as those shown on Figure 2-1 of the SV SAP; the rest of the boreholes, DP1-DP3 and DP6, are to be moved to different locations (see the enclosed map) because of the heterogeneous nature of waste placed into the MWL. To protect workers, the borehole locations for DP1-DP6 may be adjusted by a maximum of 20 feet in any horizontal direction to avoid drilling directly through waste buried in the MWL.

As discussed in the SV SAP, duplicate samples are to be taken from DP5 and DP6. Because the location of DP6 is to be changed, the Permittees may choose a different borehole than DP6 for the collection of the second set of duplicate samples.

The Permittees shall collect soil samples to be analyzed for tritium prior to collecting soil-gas samples in each borehole, opposite of the sequence noted in the SV SAP.

2. Soil-gas and soil samples from boreholes DP2, DP3, and DP5 shall be collected at depths of 10, 30, and a minimum of 50 feet. Samples from all other boreholes shall be collected at depths of 10 and 30 feet.

3. The radon detectors proposed in the SV SAP (track-etch type) are not the same type as those used in the 1997 radon survey for the MWL. To ensure that radon data are directly comparable with the 1997 data, the Permittees shall use the same radon detector type as those used in the 1997 survey (*i.e.*, 4-inch diameter activated-charcoal radon canisters to be analyzed for radon by gamma spectroscopy).

4. Nine radon detectors (RN1-RN9) shall be deployed at the locations shown on the enclosed map. These locations were selected, in part, based on the highest flux rates for radon as determined in the 1997 survey, and do not include the two background locations proposed in the SV SAP. The locations for RN1, RN3, RN4, RN5, RN6, RN7, and RN8 correspond to locations 30, 5, 8, 44, 13, 64, and 18 of the 1997 survey, respectively. The locations of RN2 and RN9 are new.

5. The radon data shall be submitted at the same time as the VOC and tritium data.

6. In addition to VOCs, all soil-gas samples shall be analyzed for methane.

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7. The data and results of the SV SAP shall be submitted in writing to the NMED for its review and approval no later than July 31, 2008.

If you have any questions regarding this matter, please contact William Moats of my staff at (505) 222-9551.

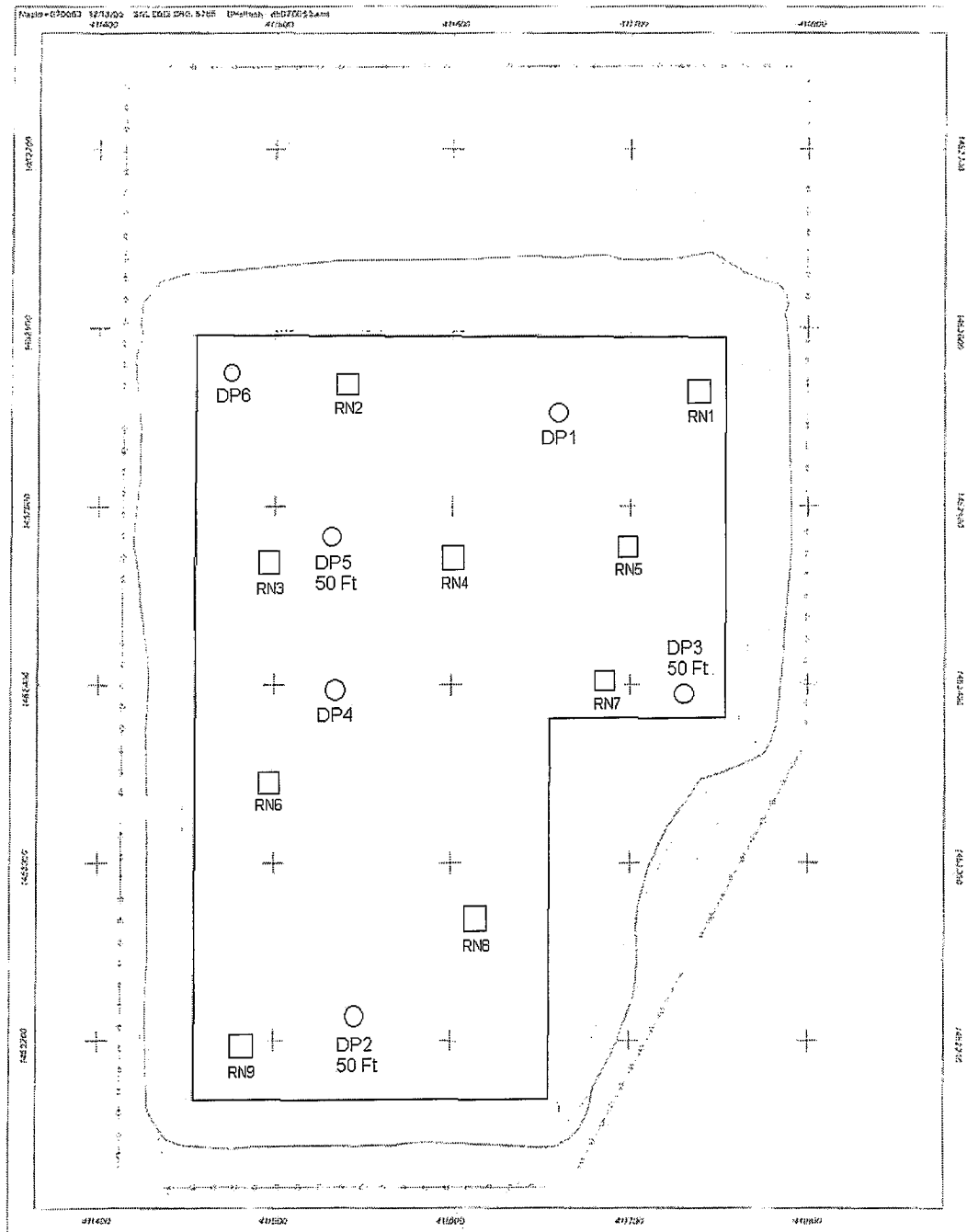
Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

enclosures

cc: J. Kieling, NMED HWB  
T. Skibitski, NMED DOE-OB  
L. King, EPA-6  
P. Freshour, SNL MS 1089  
J. Gould, DOE, MS 0184  
File: SNL 2008 and Reading  
SNL-05-025



**Legend**

- Soil Vapor and Tritium Sampling Location (DP1-DP6)
- Radon Sampling Location (RN1-RN9)

- - - Proposed Final Fence
- ..... Proposed Toe of Landfill Cover
- \_\_\_\_\_ SWMU 76, Former MWL Extent

Soil Gas VOC, Tritium, and Radon Sampling Locations, Mixed Waste Landfill

