



BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us



RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 29, 2009

Kimberly A. Davis
Acting Manager
U. S. Department of Energy
NNSA/Sandia Site Office
P.O. Box 5400, MS 0184
Albuquerque, NM 87185-5400

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

**RE: NOTICE OF DISAPPROVAL: MIXED WASTE LANDFILL GROUNDWATER
MONITORING REPORT CALENDAR YEAR 2008, MAY 2009
SANDIA NATIONAL LABORATORIES, EPA ID# NM5890110518
HWB-SNL-09-012**

Dear Ms. Davis and Mr. Nimick:

The New Mexico Environment Department (NMED) has reviewed the *Mixed Waste Landfill Groundwater Monitoring Report Calendar Year 2008*, dated May 2009, with cover letter dated May 27, 2009. The subject report was submitted by the U. S. Department of Energy (DOE) on behalf of the Sandia National Laboratories Facility. NMED has identified a number of deficiencies in the subject report, some which require a response from the DOE and Sandia Corporation (collectively, the Permittees).

The following comments must be addressed by the Permittees.

1. Page 1-1, last paragraph, the sentence states "...and five downgradient or cross-gradient wells (MWL-MW5, MWL-MW6, MWL-MW7, MWL-MW8, and MWL-MW9) (Figure 1-2)" -- Indicate which well(s) the Permittees consider to be cross-gradient.
2. Page 4-1, 2nd paragraph in Section 4.1, second to last sentence -- Explain what is meant by "more variation in the flow field" in the localized flow pattern.
3. Figure 4.1-1, page 4-3 -- The groundwater elevation values shown for MWL-MW7, MWL-MW9, and MWL-BW2 are not the same as those listed in Table A-1, Appendix A,

- page A-1. Indicate which values are correct. Indicate also whether the other groundwater elevation values shown on Figure 4.1-1 are correct.
4. Section 5.1, page 5-1, and in Table A-3, Appendix A, page A-5 -- There is no test method listed for semivolatile organic compounds (SVOCs) in Section 5.1. Also there is no Target Quantitation Limit for SVOCs on Table A-3. Indicate the method used and the Target Quantitation Limit for SVOCs.
 5. Section 6.5 -- The last paragraph on page 6-2 seems to indicate the highest uncorrected gross activity level was 17.8 +/- 10.5 pCi/L in the April MWL-MW6 sample. Table A-10 indicates a gross alpha activity of 20.7 +/- 5.07 in the April MWL-MW5 sample. Indicate which number should be considered the highest level and explain your rationale for selecting the highest value.
 6. Section 6.5 and Table A-11 -- Uranium is being subtracted from the gross alpha activity levels reported in Table A-10 (these values are referred to as "corrected gross alpha activity"). A footnote at the end of Table A-11 states "The MCL for gross alpha activity is 15 pCi/L; however, total uranium is not intended in the standard and can be subtracted as needed". Given that the Mixed Waste Landfill (MWL) contains considerable depleted-uranium waste, provide an explanation as to why uranium should be subtracted from the gross alpha data for the MWL when the purpose of acquiring the data is to monitor the groundwater for contaminant releases.
 7. In Table A-1, Appendix A, page A-1, the 6th Column seems to be elevation of bottom of sump, not "Total Well Depth". Clarify whether "Total Well Depth" is correct for the column heading. If "Total Well Depth" is incorrect as the column heading, submit a revised Table A-1 with the correct heading.
 8. Tables A-5, A-6, and A-10, Appendix A, pages A-10 through A-41 and A-48 through A-52 -- The Permittees are not required to revise the tables mentioned in this comment for the subject report. However, in future monitoring reports for the MWL, include in each similar table a column listing for each constituent their approved background concentrations. This applies to metals, radionuclides, and other inorganic substances which occur naturally in the environment or are found worldwide as a result of fallout from nuclear testing.
 9. Page 6-1, Section 6.2, first paragraph and page 6-2, Section 6.5, first paragraph -- In future reports, when discussing analytes and comparing them to MCLs or other water quality standards, state also if the analytes exceed background levels.

Ms. Davis and Mr. Nimick
October 29, 2009
Page 3

The Permittees must respond to the above comments no later than January 6, 2010. If you have any questions regarding this matter, please contact Sid Brandwein of my staff at (505) 222-9576.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
W. Moats, NMED HWB
S. Brandwein, NMED HWB
T. Skibitski, NMED DOE-OB
L. King, EPA-6
J. Cochran, SNL, MS 0719
J. Gould, SNL, MS 0184
File: SNL 2009 and Reading
SNL-09-012