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October 29, 2009

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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.
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

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File:  SNL 2009 and Reading  
       SNL-09-012