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GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

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**RON CURRY**  
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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

June 26, 2007

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: NOTICE OF DISAPPROVAL: MONITORING WELL PLUG AND  
ABANDONMENT PLAN AND REPLACEMENT WELL CONSTRUCTION  
PLAN, DECOMMISSIONING OF GROUNDWATER MONITORING WELL TAV-  
MW1, INSTALLATION OF REPLACEMENT GROUNDWATER MONITORING  
WELL TAV-MW10, APRIL 20, 2007  
SANDIA NATIONAL LABORATORIES, EPA ID# NM5890110518  
HWB-SNL-07-013**

Dear Ms. Wagner and Mr. Nimick:

The New Mexico Environment Department (NMED) has reviewed the subject document dated April 9, 2007 (with transmittal letter dated April 20, 2007), and has identified deficiencies in the plan that must be addressed. The U. S. Department of Energy and Sandia Corporation (collectively, the "Permittees") must respond to the following comments within 60 days of receipt of this letter.

1. Page 5, Section 5.1 – This section states that TAV-MW10 will be installed a minimum of 25 feet away from the existing well (TAV-MW1) location and that the actual location will be selected with concurrence from NMED personnel. The proposed location for TAV-MW10 as shown on Figure 1 is not acceptable to the NMED, as the distance from the existing well is too great. A location no more than 30 feet from TAV-MW1 would be acceptable to the NMED. Modify the plan to indicate the location of TAV-MW10 is to be

- within 30 feet of TAV-MW1.
2. Page 5, Section 5.2.1 – The Permittees shall log the depth of the first encounter with regional groundwater and any perched groundwater, during drilling. Modify the plan to state that the depth of regional groundwater and the depth of any perched groundwater will be logged during drilling.
  3. Page 6, Section 5.2.2 – This section states that the total depth of the borehole in which TAV-MW10 is to be constructed will be determined by a field geologist. The anticipated well screen depth as discussed in the subject plan is proposed to be 509-539 feet below ground surface (bgs). NMED expects TAV-MW10 to be screened in the uppermost part of the saturated zone, with 5 feet of screen above the water table and have a total screen length of 20 feet instead of 30 feet. Modify the plan to indicate that the well screen for TAV-MW10 will be set with about 5 feet of screen situated above the water table and that the screen length will not exceed 20 feet.
  4. Page 6, Section 5.2.2 – Sediments making up the uppermost part of the saturated zone are fine-grained. The subject plan calls for the use of 10-20 silica sand for the primary filter pack and 0.020 inch slotted screen. The Permittees must to ensure that the screen slot size and gradation of the filter pack material is of proper size to prevent water samples collected from the well from exhibiting high turbidity. Modify the plan to state that primary filter pack and screen slot size will be changed in the field if necessary based on the gradation of sediments actually encountered in the interval to be monitored.
  5. Page 6, Section 5.2.2 – The Permittees propose the use of only two centralizers located at the top and bottom of the screen. Additional centralizers located no more than 100 feet apart shall be placed along the well casing above the top of the screen.
  6. Page 6, Section 5.2.2 – The plan calls for the installation of grout in at least two lifts. During the installation of well MWL-MW5, grout intruded the well screen. Although there are several possible explanations for what caused this grout intrusion, the emplacement of grout in lifts that were too long may have led to this problem. Modify the plan to place the grout using more and shorter lifts, with a minimum of 24 hours of setting time between the first two lifts.
  7. Page 6, Section 5.2.2 – Modify the plan to indicate that the well location (easting/northing or latitude/longitude and top of casing) will be surveyed. Indicate also the degree of accuracy for the survey.
  8. Page 8, Section 5.2.3 – Modify the plan to state the parameters that are to be measured during well development.

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9. Page 8, Section 5.2.3 – Modify the plan to indicate that the method of development, the volume of water added or removed, the parameters measured, the results of the measurements, and the time these activities take place are to be documented in writing during well development. Indicate in the plan that only potable water shall be used to develop the well.
10. Page 8, Section 5.3.2 - Modify the plan to specify in detail the criteria for which well development will be considered adequate and complete.

If you have any questions regarding this matter, please contact Mr. Brian L. Salem of my staff at (505) 222-9576.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
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File: SNL 2007 and Reading  
SNL-07-013

