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RON CURRY  
Secretary

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Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

August 25, 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: NOTICE OF DISAPPROVAL: SUMMARY REPORT FOR MIXED WASTE  
LANDFILL MONITORING WELL PLUG AND ABANDONMENT AND  
INSTALLATION -- DECOMMISSIONING OF GROUNDWATER  
MONITORING WELL MWL-BW1 INSTALLATION OF GROUNDWATER  
MONITORING WELL MWL-BW-2, APRIL, 2008  
SANDIA NATIONAL LABORATORIES, EPA ID# NM5890110518  
HWB-SNL-08-015**

Dear Ms. Wagner and Mr. Nimick:

The New Mexico Environment Department (NMED) has reviewed the subject document submitted in April, 2008 and has identified several deficiencies. Within 60 days of receipt of this letter, the U.S. Department of Energy and Sandia Corporation must submit additional information to correct these deficiencies which are noted in the following five comments.

1. Section 2.4, Initial Groundwater Level and Well Construction, 4<sup>th</sup> paragraph states "A 30-ft volclay coarse chip plug was placed from 426 to 456 ft bgs. The first 18 ft of chips were hydrated and allowed to set overnight. The next day, chips were added up to 426 ft bgs, hydrated, and allowed to set for approximately 2 hours." Apparently based on this information two separate lifts were placed, followed by hydration of the chips. However, the work plan calls for 5-ft lifts with hydration done between each lift, or placing 6 separate lifts. Clarify how many lifts were emplaced.

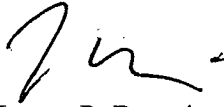
Also associated with the above paragraph, the response of SNL to item 8 in NMED's Notice of Deficiency dated June, 2007, includes "also, please note that the first sentence of the fourth paragraph in Section 5.2.2 of plan has been changed from "A 30-ft thick layer of ¼-inch bentonite pellets or 3/8-inch bentonite chips will be placed above the filter pack...." to now read "A 10-ft thick layer of ¼-inch bentonite pellets or 3/8-inch bentonite chips...". This change was made based on consultations with experienced well drillers who pointed out that a 30-ft thick layer of bentonite pellets/chips would be difficult to confidently install inside drive casing." Clarify why SNL chose to stay with the 30-ft layer after requesting and getting approval for a 10-ft layer.

2. The work plan calls for use of centralizers and has spacing specifications. Discuss the installation of centralizers and their spacing.
3. The work plan, Section 5.2.3, Well Development, states "representative water is assumed to be obtained when pH, temperature, turbidity, and specific conductivity readings stabilize (less than 10% variability over three consecutive well bore volumes) and the water is visually clear of suspended solids with a target turbidity of less than five Nephelometric Turbidity Units (NTUs)". The field data submitted in the report shows that these conditions were met except for turbidity, which did not stabilize to within 10% variability. However, NMED does accept that the well was adequately developed and that representative groundwater samples can be obtained. However, rewording of the above criteria should be considered in any future work plans to avoid confusion as to what situations are applicable for the two different criteria for turbidity.
4. Section 5.0 Variances, states "there were no instances of variance from either the Plan or the FOPs/AOPs during these activities". However, NMED notes at least two instances of variance. One is stated in Section 2.4, Initial Groundwater Level and Well Construction, 4<sup>th</sup> paragraph, where the use of #60 sand instead of #40-60 sand is acceptable for the reason stated, but such a change is a variance from the plan. Another example, is that the plan calls for cutting off the casing at approximately 5 ft. bgs. As discussed in Section 3.0, Plug and Abandonment, 2<sup>nd</sup> paragraph in the report, the casing was cut off at about 14 inches above ground. Again, this is acceptable for the reason stated, but it is still a variance. There may be other variances depending upon the answers to the above items. List and discuss each variance.
5. Much of the Combination Lithologic and Geophysical Logs with Well Construction Details for MWL-BW2 submitted in Attachment C is difficult to read. Submit a readable version. Also, submit an electronic version of the geophysical log data, preferably in depth/value spreadsheet format.

Ms. Wagner and Mr. Nimick  
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If you have any questions regarding this matter, please contact Mr. Sid Brandwein of my staff at (505) 222-9504.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

JPB:sb

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File: SNL 2008 and Reading