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RON CURRY
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

April 3, 2006

David Gregory
Federal Project Director
Los Alamos Site Office
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, NM 87544

David McInroy
Remediation Services Deputy Program Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, NM 87545

**RE: SECOND NOTICE OF DISAPPROVAL
INVESTIGATION REPORT FOR SOLID WASTE MANAGEMENT UNITS
03-010(a) AND 03-001(e) AT TECHNICAL AREA 3
LOS ALAMOS NATIONAL LABORATORY, EPA ID #NM0890010515
HWB-LANL-06-002**

Dear Messrs. Gregory and McInroy:

The New Mexico Environment Department (NMED) is in receipt of the *Response to the Notice of Disapproval for the Investigation Report for Solid Waste Management Units 03-010(a) and 03-001(e) at Technical Area 3*, dated March 24, 2006 (Response). NMED has reviewed the Response and hereby issues this second notice of disapproval (NOD). The University of California and the Department of Energy (collectively, the "Permittees") did not provide adequate responses to several of the comments in the first NOD dated February 20, 2006. As the comments herein are not different from those provided in the first notice of disapproval, the Permittees must provide the requested information within 15 days of receipt of this letter. In any event, the Permittees' failure to adequately respond to this or any NOD may subject the Permittees to an enforcement action. All submittals must be in the form of two paper copies and one electronic copy in accordance with section XI.A of the Consent Order.



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1. Section 3.7 Waste Management, pg. 8:

NMED Comment: The Permittees must provide information on the waste management activities. Specifically, the Permittees must provide waste characterization results and final disposal location(s) for all media and the removed well casing. In the Response, the Permittees state that this information will be provided by April 28, 2006. This response is inadequate. This information should have been provided as part of this Response as requested.

2. Section 5.2 Groundwater Standards, pg. 23:

NMED Comment: NMED stated in its comment that it was not clear why the Permittees discuss the use of surrogate chemicals. In Appendix F (Risk Assessment), Table F-10.2.2, the Permittees identified contaminants in the groundwater that all have associated standards (except total petroleum hydrocarbons, which are addressed in NMED guidance). The Permittees clarified in the Response that the "chemical trifluoroethane [1,1,2-] was the only chemical for which a surrogate chemical (trichloroethane 1,2,2) was applied." NMED assumes from Table F-10.2.2 the Permittees are referring to the chemical trichloro-1,2,2- trifluoroethane [1,1,2-]. This chemical has toxicity data available on the U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS) website. This data should be used and surrogate toxicity data is not needed. In addition, the Permittees state in the Response that the text and table would be clarified and submitted by April 28, 2006. This response is inadequate. This information should have been provided as part of this Response as requested. The Permittees must use the toxicity data for the chemical trichloro-1,2,2- trifluoroethane [1,1,2-] as provided in IRIS.

3. Section 6.2 Fill, Sediment and Rock Sampling Analytical Results at SWMU 03-010(a), pg. 27:

NMED Comment: The Permittees state that "[r]esults of the hydrogeologic samples and several analytical requests were not received by LANL SMO by the time of this report and are, therefore, not included in the data review." According to Table 6.2-1, there are percent moisture, percent porosity, bulk density, and hydroconductivity data pending for 18 samples (four locations); metals data pending for 6 samples (two locations); and metals, SVOCs, VOCs, radionuclide, and total petroleum hydrocarbon data pending for 4 samples (one location). The Permittees must provide these data in order for NMED to complete its review of the Report. The Permittees must also convert tritium data units into pCi/mL using the percent moisture data. These data should then be compared to background/fallout values for tuff so that NMED can evaluate site contamination. The Permittees may also need to re-evaluate risk based on the results of the additional data.

In the Response, the Permittees state that the analytical results are still pending, even though the report was submitted to NMED in August 2005. The Permittees have had ample time to receive, evaluate, and include additional data since the submittal of the report. Also in the Response, the

Permittees state that this information will be provided by April 28, 2006. This response is inadequate. This information should have been provided as part of this Response as requested.

4. Section 7.1.1 Nature and Extent of Contamination at SWMU 3-010(a), pg. 41:

NMED Comment: The Permittees state that NMED has concurred that “[c]haracterization of the sediments in the drainage channel south and west of the site will be completed and evaluated as part of the Two-mile canyon investigation, following the “Canyons Approach”.” NMED agrees that “data from this SWMU will be used by the Canyons Focus Area as part of the Twomile Canyon and Upper Twomile Canyon investigation, in the planning of the investigation as well as in the interpretation of fate and transport of contaminants that is presented in the Pajarito Canyon surface aggregate report” (*Addendum to RFI Report for 03-010(a)*, pg. 13). However, the sediments in the drainage channel are within the boundary of SWMU 3-010(a) (see Figure 4.2-1) and the Pajarito Canyon Work Plan does not include characterization of this drainage. The Permittees must continue to investigate this drainage as part of the SWMU investigation following NMED-approved characterization methods implemented by the Canyons Focus Area.

In the Response, the Permittees acknowledge that the drainage will be included as part of the SWMU investigation and commit to submitting modified text to reflect this agreement and state that this information will be provided by April 28, 2006. This response is inadequate. This information should have been provided as part of this Response as requested.

5. Section 7.1.4 Results of Risk Screening Assessment for SWMU 03-001(e), pg. 46:

NMED Comment: The Permittees have agreed to voluntarily provide total radionuclide risk levels in addition to total radionuclide dose. The Permittees must provide total radionuclide risk levels for SWMU 3-001(e). In the Response, the Permittees state that this information will be provided by April 28, 2006. This response is inadequate. This information should have been provided as part of this Response as requested.

6. Section 8.2 Groundwater at SWMUs 03-010(a) and 03-001(e), pg. 53:

NMED Comment: The results of the 2005 investigation reveal that groundwater at these SWMUs is currently contaminated with VOCs and tritium. Although the source(s) of the groundwater has not been determined definitively, the Permittees have identified at least two sources of groundwater at this location: water from a cooling unit condensate line and surface run-off migrating down the now-abandoned monitoring well MW-1. The groundwater seems to be confined to a small area beneath and surrounding the SWMUs. The sources of contamination have been identified (except for the tritium) and defined, and still remain a source of groundwater contamination. Because the screening assessment shows that several contaminants in the groundwater are above NM Water Quality Control Standards and/or EPA Maximum Contaminant Levels, NMED requires the Permittees to perform the following interim measure

activity while conducting the proposed quarterly monitoring.

- Because the groundwater body is relatively small, the Permittees must pump all three of the monitoring wells dry and then monitor the water levels as they recharge. If the groundwater elevations return to previous levels within 30 days of pumping, the Permittees must continue to investigate other possible groundwater sources contiguous with quarterly sampling. The Permittees must perform these operations within 15 days from receipt of this letter. The Permittees must report the results of this activity within 15 days of completion but no later than 45 days after initial groundwater removal.

As part of the original NOD, the Permittees were to perform the interim measure activities within the prescribed timeframe. Per section VII.B.1 of the Order on Consent, “[t]he Department will require interim measures, if the Department determines that such measures are necessary, to reduce or prevent migration of contaminants which have or may result in an unacceptable human or environmental receptor exposure to contaminants while long-term corrective action remedies are evaluated and implemented.”

In the Response, the Permittees propose to “focus on identification of the actual recharge location(s) to determine if the source of recharge can be controlled or eliminated.” The Permittees also propose “to refine the investigation of the actual source of solvent contamination to determine if a remedy can be implemented effectively. Quarterly sampling, analysis and reporting is also recommended.” NMED agrees with the Permittees proposal to continue to identify the groundwater source and to perform quarterly monitoring. However, the Permittees must also perform the interim measures as described above.

7. Appendix A Field Methods:

NMED Comment: The Permittees must provide descriptions of their investigation, sampling, and analytical methods and procedures. The descriptions provided in Table A-1 of the report do not provide sufficient detail to evaluate the quality of the data. In some cases, the methods and procedures used by the Permittees during this investigation are described throughout the text of the report. In some cases, it is not clear the procedures were appropriate to this investigation (for example, SOP 4.04 Contract Geophysical Logging). However, the Permittees only provide brief descriptions of what is included in the procedures instead of what was actually carried out during the field work for the following procedures:

- SOP 1.04
- SOP 1.05
- SOP 1.06
- SOP 1.08
- SOP 1.12 (Waste Characterization)

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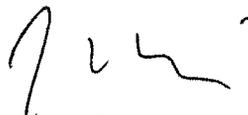
- SOP 1.12 (Field Site Closeout Checklist)
- SOP 3.11
- SOP 4.04
- SOP 6.09
- SOP 9.10
- SOP 12.01

The Permittees must provide this information. In the Response, the Permittees state that this information will be provided by April 28, 2006. This response is inadequate. This information should have been provided as part of this Response as requested.

NMED does not consider the Permittees' proposal for a new date for submitting the requested information as an adequate response. The Permittees must provide the requested information and substantively address the issues in this letter.

Should you have any questions, please feel free to contact Darlene Goering of my staff at (505) 428-2542.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:dxg

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