



Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

OCT 31 1989

Mr. Ramon E. Hall
Director, Uranium Recovery
Field Office
Region IV
U.S. Nuclear Regulatory Commission
P.O. Box 25325
Denver, CO 80225

Dear Mr. Hall:

On September 15, 1989, we received a copy of your staff's report based on their visit to the Lakeview, Oregon Uranium Mill Tailings Remedial Action (UMTRA) site on August 29-30. The issues and concerns, which were raised by Mr. Gary Konwinski, were appreciated. The following information is provided in response to Gary's concerns.

As you are aware, the DOE and the NRC have previously met in attempting to develop field methods for measuring the efficiency of the drain, which was installed to prevent natural seepage from penetrating the disposal cell at the Lakeview disposal site. The final Lakeview RAP, Section 6.3 (DOE 1989), states DOE's intent to install monitor wells upgradient of the drains to monitor the groundwater flowing seasonally from the two identified seeps. This was agreed to by the NRC and was considered acceptable to the DOE. However, recent discussions amongst our technical staff tend to oppose this position, as the installation of upgradient wells will not monitor the effectiveness of the drain. The placement of monitor wells downgradient and perpendicular to the line of flow of the seeps would more adequately determine the efficiency of the drain with regard to the encapsulation cell. However, installation of such wells would require penetration through the cell. Upon review of this option, the DOE and DOE contractor hydrological staff have suggested that technical problems associated with installation of these wells may far exceed any benefits provided.

Generally, the DOE believes that any method employed to measure the drains' effectiveness will, at best, provide data which only allows ambiguous interpretations. Monitor wells installed through the disposal cell may not only collect water from the seeps, but also provide a collecting point for water from the emplaced tailings or from other sources within the cell. Analytical testing of collected water may then become necessary, and would likely be unsuccessful in determining the origin of the water. While the rest of the Collins Ranch disposal cell is designed for a 200 to 1000 year performance period, installation of the referenced monitor wells may be impractical.

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The longevity of monitor well construction through the tailings pile is not consistent with program design criteria of 200 to 1000 years performance nor is it consistent with the pile design. Degradation of the monitor wells could provide a conduit for fresh water migration downward through the tailings or potential contaminants upward. The DOE feels that the risk associated with this request would compromise the current design and the risk exceeds all potential benefits. As a result of these factors, the DOE recommends that monitoring the drain be maintained at the point of compliance wells to determine whether the overall disposal facility is in compliance with EPA groundwater protection standards.

With reference to the Lakeview point of compliance (POC) wells, the DOE agrees that four (4) downgradient monitor wells, installed vertically at the edge of the rock mulch and completed with the screened interval near the top of the uppermost aquifer, will be sufficient to provide prompt detection of any contaminant leakage. Construction of these POC monitor wells using four-inch ID, schedule 40 PVC casing, and a screened interval of twenty (20) feet is appropriate. The northeast POC monitor well will be installed first, to help determine the direction of groundwater flow and guide the placement of the remaining three POC monitor wells. Standard UMTRA borehole lithologic logs, borehole/well construction summaries, and well completion records will be documented. Copies will be provided to the NRC on request.

Next, the DOE believes that it has resolved the concerns of the NRC with a design modification to the Energy Dissipation Area (EDA). This modification has been presented as PID 13-S-30 and verbally concurred upon by DOE, NRC, and the State of Oregon. The modification was initiated to remove the potential for ponding of water within the EDA.

Your final comment concerned the listing of groundwater parameters which are monitored at the Lakeview site. Inorganic hazardous constituents to be analyzed in samples drawn from monitor wells at the Collins Ranch disposal site and the Lakeview processing site are currently being evaluated by the DOE. The DOE agrees that the choice of chemical analyses may be reduced to the list of hazardous constituents in the source at each site, resulting in both increased data interpretation efficiency and cost reductions. The NRC will be provided with a list of recommended chemical constituents to be analyzed at each of the Lakeview sites.

Lastly, the DOE agrees that monitoring the temporal changes in groundwater quality following the completion of the remedial action at the Lakeview processing site could be advantageous. The removal of contaminated materials at Lakeview may have established a new environmental baseline at the site, and the judicious monitoring of potential preliminary temporal changes in groundwater quality would provide valuable data for future modeling of the effectiveness of a passive, groundwater quality, restoration scenario. The remaining issue is one of funding and finding the available dollars to complete the work. The DOE will continue to

Mr. Ramon E. Hall

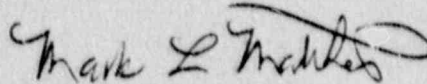
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investigate this option from a budgetary standpoint, and will keep the NRC apprised of any changes or decisions.

We sincerely hope that the NRC will be in agreement with the enclosed responses and that we may closeout Lakeview on a positive note.

Should you have any questions, please contact Jolene Garcia of my staff at 844-3941.

Sincerely,



Mark L. Matthews
Acting Project Manager
Uranium Mill Tailings Project Office

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