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November 18, 1997

Mr. John P. Sands
U.S. Department of Energy
P.O. Box 550 (HO-12)
Richland, WA 99352



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Dear Mr. Sands:

Please include the following in the record of public comments for the "Phase I Feasibility Study for the Canyon Disposition Initiative (221-U Facility)." It summarizes what I feel should be done in solving this problem. If there are questions, please phone me at home at (509)-946-4409.

I prefer Alternative 6: Close in Place - Collapsed Structure. My reasons for this choice are related to minimizing the amount of clean fill needed for the base of the environmental barrier, the timing involved in obtaining solid waste to fill internal voids in the cells, and the current status of the roof and upper walls of the canyon building. As stated in DOE/RL-97-11 Rev 0, Alternative 6 is one of the four choices to proceed into the next phase of analysis. It also transforms a problem area into a permanent waste disposal site that can be used to support the overall Hanford Site cleanup effort.

I prefer Option 4 for future use of the Central Plateau as a 200 Area waste management area. Alternative 6 is consistent with the recommendations of "Hanford Future Site Uses Working Group, Future for Hanford: Uses and Cleanup." Any Hanford Site wastes and compatible DOE wastes from off-site should be allowed, but commercial wastes should be limited to plutonium, $\geq 20\%$ enriched uranium, U-233, plus commercial wastes that are beneficial for DOE to receive (e.g., prepaid). No commercial spent reactor fuel should be accepted at Hanford for a Monitored Retrievable Storage Facility.

It is difficult to project when waste generated by other Hanford Site activities will become available, when the 221-U facility (or other canyons) will be available to accept radioactive and hazardous wastes, and nearly impossible to predict when the political agreements and regulatory requirements will be met. However, 221-U is the best of the five canyons to exhibit entombment (per Table 1-1 of DOE/RL-97-11). Still, full characterization of the cells and vessels will be required to demonstrate that there are no criticality safety or other problems that need mediation or solution before entombment starts. Then criteria must be met to minimize contained void space inside vessels, pipes and cells to prevent future ground subsidence.

As much waste should be placed inside the 221-U canyon cells, pipe trench, and galleries as is reasonably (time-wise) and cost-effectively available and the above-cell-cover-block structure demolished. It would also be cost-effective to obtain a RCRA permit for disposal of non-CERCLA wastes in 221-U and to make sure waste acceptance criteria are satisfied so that other Hanford wastes could be brought in without separate CERCLA decision documents and time lost for each separate instance. It is time-critical to entomb as much waste as is suitable for near-surface disposal as possible inside 221-U (and eventually the other four canyons) and avoid extra costs for enlarging the ERDF burial site.

I understand that the canyon end walls and roofs are not attached to the side walls in a manner that will resist a major seismic event. Placing fill inside and outside the canyon walls and roofs will help to stabilize this problem. However, I feel that removal of all structures above the cell cover block level will help to ensure that the entombed wastes inside the canyon cells, pipe trenches, and galleries will stay inside very heavily reinforced structures, which are principally below current ground level.

Sincerely,

Leslie C. Davenport
Leslie C. Davenport,
Senior Engineer, Nuclear Safety (Retired)