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Wendy Dixon, EIS Project Manager
Yucca Mountain Site Characterization Office
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
PO Box 30307, Mail Stop 010
North Las Vegas, Nevada 89036-03007

Dear Ms. Dixon,

The following constitute my comments on the Department of Energy's Draft Environmental Impact Statement (DEIS) for Yucca Mountain.

1 **SITE SELECTION** — I believe that Yucca Mountain is an unacceptable site for an underground repository for high-level nuclear waste because:

- At least 33 seismic faults lie close to or within the site.
- 621 earthquakes of magnitude 2.5 or greater have occurred within 50 miles of the site within the last 20 years. In 1992, a 5.6-level quake occurred just twelve miles from the site.
- A magnitude 5 or 6 earthquake at the site could dramatically raise the water table, flooding the repository, and create a rapid corrosive breakdown of the metal disposal canisters and possible steam explosion. Either event would allow plutonium to leak into the water table (which serves Las Vegas), groundwater and atmosphere.
- Rather than taking thousands of years for rainwater to reach the proposed repository as previously predicted, rainwater was recently found that was only 40 years old.
- A volcano 12 miles from the site is now thought to have erupted within the last 20,000 years, rather than 270,000 years, as previously estimated.

2 **TRANSPORTATION** — Current estimates are that transportation of spent fuel to Yucca Mountain will involve 100,000 truck and rail shipments over a 30-year period. Such shipments will go through 43 states and occur within a half-mile of 50 million residents. Current estimates are that 210 to 354 accidents can be expected during the 100,000 shipments.

How bad these accidents will be depends in part upon the adequacy of the truck and rail casks used to transport the spent fuel. Unfortunately all casks currently in use are only computer designed (they've never been physically tested) to withstand a 30 m.p.h. crash and a half-hour fire at a temperature of 1,475 degrees. Because many accidents exceed these standards, significant releases of radioactivity are likely.

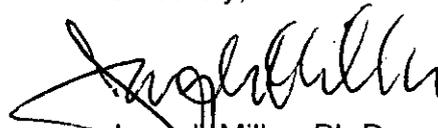
3 How dangerous such releases are depends, in turn, upon how well trained and equipped emergency personnel are in the 43 states that will experience the 100,000 shipments. Most are neither trained nor equipped to deal with such emergencies.

4 The DEIS should clearly and accurately characterize the risks involved along the transportation routes. It should include site-specific data to show the effects of accidents in highly populated areas, areas where it would be difficult to retrieve a leaking cask, and areas where accidents are more likely (steep inclines, sharp curves, areas with severe weather).

5 The DEIS should characterize the emergency response personnel training and equipment that would be needed in all of the communities along the transportation routes, and characterize what the specific impacts of a transportation accident would be. The DEIS should also indicate what emergency response equipment, facilities
6 (e.g., isolation rooms for radioactively contaminated individuals), and trained personnel are available in these communities, and what the effects of a transportation accident could be based on what is currently available in each community.

Please keep me informed about the ultimate EIS that is adopted.

Sincerely,



Joseph Miller, Ph.D.
Associate Professor