webserver@yucca-web1.ymp.gov on 11/26/2006 10:37:34 PM

To: SEIS_Comments@notes.ymp.gov CC' Subject: NOI SEIS Comment User Filed as: Not Categorized in ERMS November 26, 2006 22:37:34 IP address: 4.232.183.43 The Commentors Name: ---> Dean S. Engelhardt The Commentors Address: --->404 N. Danehurst Ave. --->Covina, California 91724 Email Information: --->dengelhardt@earthlink.net ---> Add commentor to the mailing list : yes Contact Information: ---> fax number : ---> phone number : 6263397473 ---> organization : ---> position : Comment Text : -->Most of the comments you will receive will have already been hashed and rehashed. I've seen the same in my discussions with CoRWM (British Energy). However, there is one concern that I don't believe has been considered: 1. Yucca Mountain has a layer of non-tufted rock above the tunnels that absorbs large quantities of water during the rainy season. 2. The tunnels, after loading, will be at about 200C 3. Two earthquake faults cut through both the non-tufted layer and the tunnels (Bow Ridge and Ghost Dance). They are considered inactive, but no fault is truly inactive in the presence of external forces such as nearby earthquakes. Non-tufted rock is structurally weak. The layer above it has considerably more mass. If either an earthquake on the above faults or a significant event on a nearby fault occurs, the shock wave could (a) shift the rock above the

non-tufted layer sufficient to partially crush the non-tufted layer,

pressurizing the water contained within, and (b) open one of the faults, providing a pathway into the tunnels to a large volume of water.

If water in quantity finds a path into the tunnels, it will flash to steam and overpressure the tunnels. If it were only a trickle, it would just pressurize the tunnels slightly and vent through flaws in the seals. But, in a major earthquake, a large quantity of water could be forced into the tunnels and result in a steam explosion. Mt. St. Helens was a steam explosion.

The earthquake doesn't have to be on either of the two faults at Yucca Mountain. Two earthquakes in our near future are capable of releasing the Ghost Dance and/or Bow Ridge faults: the Mojave Section of the San Andreas or the San Bernardino Section of the same fault. Both of these earthquakes have the potential of knocking down large buildings in Las Vegas (per Dr. Tom Heaton - Cal Tech Seismologist at a 1996 lecture). These earthquakes occur every 150 - 250 years. During the 10,000 years you are committed to securing Yucca Mountain and the containers, there would be about 100 chances that a major earthquake could cause a major radiation release. (The earliest just as soon as the tunnels are loaded and sealed - both earthquakes are overdue.) Such a release, depending upon the winds, could be deadly for anyone not in a fallout shelter within a few hundred miles and a cause for health concerns throughout the nation and beyond. This is predicated on the rupture of only 25% of the containers.

This could be the world's largest radiation bomb and largest man-made disaster.