




Q: *Would a repository at Yucca Mountain withstand earthquakes?*

A: The repository would be located about 1,000 feet underground in a relatively stable block of solid rock, which would keep its contents safe from any significant impacts of any earthquake. Because vibratory ground motion decreases with depth, earthquakes have much less impact underground than on or near the surface. Underground inspections at Yucca Mountain and the tunnels at the Nevada Test Site, some of which are over 40 years old, have revealed little disturbance from historic seismic events. This phenomenon is not unique to the Yucca Mountain area; worldwide, inspections of subsurface structures after major earthquakes have reinforced this observation.

Nuclear Regulatory Commission regulations require that all facilities it licenses be designed and constructed to withstand the effects of natural phenomena, including earthquakes, without representing a threat to public health and safety from their operations.

Sudden movement in rock along ruptures or faults causes earthquakes. Scientists' extensive knowledge of the faults in this area allows them to estimate the frequency and size of future earthquakes, the potential intensity of ground movement, and the possible effects on the area's geologic features and man-made structures. Scientists expect future earthquakes to occur in the Yucca Mountain area. However, engineers can and will design the facilities to withstand any severe earthquake considered likely to occur at Yucca Mountain.

Additionally, extensive experience and proven techniques allow building the repository's surface structures so that they perform their safety functions both during and after an earthquake.



Yes. Geologic evidence shows that the mountain has resisted earthquakes for hundreds of thousands of years. Engineers will be able to design facilities to withstand severe earthquakes considered likely at Yucca Mountain.