

Yucca Mountain: Good spot for nuke waste?

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A U.S. government study suggests the proposed Yucca Mountain radioactive waste repository in Nevada is arguably the best location for such storage.

D.J. Andrews and colleagues at the U.S. Geological Survey in Menlo Park, Calif., said they determined Yucca Mountain offers unique characteristics -- chiefly a water table so low that it is possible to store steel canisters of waste 1,000 feet below ground and 1,000 feet above the water table.

Although seismic hazard assessments usually involve a 500- to 1,000-year period, the Nuclear Regulatory Agency is requiring an evaluation that considers what would happen with odds as low as 1 in 10,000 during a 10,000-year period -- equivalent to something that occurs only once every 100 million years, the USGS said.

Andrews' team looked at the worst-case scenario and determined the ground can move a maximum of 11.8 feet per second -- near the most intense ground motion ever recorded, but within the range of feasible engineering mitigation.

The scientists suggest their findings support a long-term stable seismic environment for Yucca Mountain.

The research that included Thomas Hanks and John Whitney appears in The Bulletin of the Seismological Society of America.

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