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BECKY DENNEY

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13 MS. DENNEY: My name is Becky Denney. This
14 speech is dedicated to my grandmother who was born in
15 1891 in Wells, Nevada. She was named Maude Nevada Goble.

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16 A 21 year study tells us much about the structure of
17 Yucca Mountain, but does not tell us when earthquakes
18 will happen there, exactly where they will happen or how
19 they will change the rocks and fissures that exist.
20 Since 1910 there have been over 600 earthquakes of
21 greater than magnitude 2.5 within a 50 mile radius of
22 Yucca Mountain. How many earthquakes will happen within
23 50 miles of Yucca Mountain before 1,000 years is over?
24 This basin area is a dynamic area.

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25 Science reported in March, 1998 that a team
1 of nine scientists using GPS data found that within nine
2 miles of Yucca Mountain the earth is expanding ten times
3 faster than was believed. And again, Brian Wernicke was
4 quoted in the Las Vegas Review Journal as saying, " I
5 think the main message is if the rates we've seen is
6 reflecting some long-term process, then the hazards at
7 Yucca Mountain, volcanic eruption and frequency of
8 earthquakes would have been underestimated."

9 This could change an earthquake prediction
10 from every 10,000 years to every 1,000 years. In
11 January, 1999 there were at least seven earthquakes at
12 Frenchman's Lake. One of the earthquakes of magnitude
13 4.7 with epicenter at Frenchman's Lake knocked pictures
14 off walls and left file drawers ajar at two facilities in
15 the Nevada Test Site buildings at Frenchman's Flat. The

16 magnitude 4.7 tremor in January was at the east end of
17 the 40 mile Rock Valley Fault which, according to Tim
18 Sullivan, a Department of Energy geologist, is capable of
19 magnitudes as large as seven.

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20 In the January 28 Las Vegas Review Journal
21 Nevada Senator Richard Bryan was quoted, "This is an
22 earthquake zone. It's a bad idea to place high-level
23 nuclear waste on a place with earthquake activity."
24 Nevada Representative Jim Gibbons, a geologist said,
25 "This is something the Department of Energy cannot
1 ignore. Yucca Mountain did not become Yucca Mountain
2 through some placid event. This is a strong warning
3 signal that it is unsuitable for nuclear storage."

4 Greg de Polo, research geologist with the
5 Nevada Bureau of Mines and Geology mentioned two faults
6 in Death Valley capable of magnitude seven. He was
7 discussing ways the Las Vegas Valley could suffer
8 earthquake damage in an April, 1999 article in the Las
9 Vegas Review Journal. He said that geologists estimate
10 such strong earthquakes as magnitude seven occur in Death
11 Valley west of Yucca Mountain every 500 to 1,000 years.
12 In fact, a magnitude 5.6 earthquake did occur on August
13 1, 1999 at Scotty's Junction centered 50 miles west of
14 Yucca Mountain. It rattled residents of the Las Vegas
15 Valley, but left no injuries or damage. There were also
...2 16 13 aftershocks of magnitude three or greater. Steve
17 Frishman, consulting geologist with the State Nuclear
18 Projects Agency referring to the amount of earthquake

19 activity said, "It poses a real danger to an operating
20 surface facility where they plan to have spent pools of
21 nuclear waste."

22 From the questions and answers section of the
23 web page for the seismology lab for UN, Reno run by
24 Associate Professor John Louie, Ph.D., I quote, "There is
25 an active fault at the base of nearly every mountain
1 range in the state." We don't know when an earthquake
2 is going to happen, no matter how many studies we do.

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3 Transportation and disposition of radioactive materials
4 will take at least 30 years. What happens if an
5 earthquake occurs before the wastes are completely buried
6 underground? There may be aftershocks and other
7 earthquakes following the first one. Is there a
8 contingency plan? Could one even work? How many systems
9 such as communication, transportation, computers, must
10 work properly? How many people must be involved? How
11 much of the surface area would be damaged around Yucca
12 Mountain?

13 The largest earthquake this century close to
14 Yucca Mountain was a magnitude 5.6 recorded in 1992 at
15 Little Skull Mountain about 12 miles southeast . This
16 one knocked out windows and cracked walls at the energy
17 Department's field center, an estimated one million
18 dollars damage. The earthquake at Little Skull Mountain
19 occurred 24 hours after the Landers, California sequence
20 with a magnitude of 7.4, a Big Bear magnitude 6.5 quake
21 and hundreds of aftershocks and may have been related to
22 that sequence. The Little Skull Mountain earthquake

23 occurred on a hidden subsurface fault about three miles
24 from the closest trace of the Rock Valley Fault. I will
25 quote from the web page for the seismology lab for the
1 University of Nevada, "Now we know that the 1992 Landers
2 earthquake caused minor events all the way up into
3 southern and western Nevada. A magnitude seven
4 earthquake might be big enough to repeat that, but note,
5 the Little Skull Mountain earthquake was on a hidden
6 subsurface fault."

4 7 Nuclear waste should not be stored in Yucca
8 Mountain. A study in 1996 discovered traces of
9 Chlorine-36 in rock samples 600 feet below the mountain
10 surface which indicates rainwater seepage deep into the
11 mountain in less than 50 years. Studies that contradict
12 earlier assumptions about the mountain suggest that water
13 seepage will result in corrosion and radioactive
14 particles will be released into the region's ground
15 water. Yucca Mountain does not qualify under the Nuclear
16 Waste Policy Act and should be disqualified. The 1,000
17 rule on water seepage must not be changed.

18 Even the Draft Environmental Impact Statement
19 of July, 1999 admits that earthquakes will happen in the
20 area and could cause damage of the waste package at
21 postclosure by falling rock from earthquakes which would
5 22 then allow water intrusion into the nuclear waste. We
23 need many more years of study to understand the geology
24 of Yucca Mountain so that the citizens of Nevada can be
25 protected from the radioactivity that is already there.

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1 But we know Yucca Mountain does not meet the suitability
2 guidelines for long-term storage of nuclear waste. These
3 guidelines must not be changed. The federal government
4 has a mandate to protect American citizens and that
5 mandate includes protecting Nevada citizens.

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6 Under no condition should nuclear waste be
7 stored at Yucca Mountain. This repository cannot contain
8 radioactive material from escaping to the surface of the
9 ground water for 10,000 years. Spent fuel rods should be
10 left at the nuclear plants where they are generated. I
11 want to support the six month extension of hearings for
12 the DEIS. Thank you.