

Research Money More Important to UNLV Than Dangers

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STAFF REPORTER

News Analysis

Many here at UNLV, students & faculty, realize the dangers of storing nuclear waste at the Yucca Mountain site. The plan to bury 70,000 metric tons is the equivalent of 1 million atomic bombs times the strength as the one dropped on Hiroshima in 1945.

According to For Your Information, UNLV received \$450,382 for the Yucca Mountain Project (YMP) from the Department of Energy in December of 1994. The Principal Investigator for the YMP project research money is Donald Baepler.

"The university is interested in doing 'good science' out there, regardless of whether they are in favor or not. You're dealing with credible scientists, who report exactly what they find. We have a number of emphases — UNR is studying the potential for earthquakes, the engineering college is studying the containers & corrosion of containers, and the Harry Reid Center and the Desert Research Institute are studying the ground water contamination possibilities," stated Baepler.

Despite Baepler's claims that the university is not taking a stand for or against Yucca Mountain, the evidence of monetary contributions for research indi-

cate that the university is part of the system of profit and benefits paid into the local community by the federal government to support the Yucca Mountain Project (YMP). The research already completed clearly indicates, according to the U.S. Geological Survey (USGS) and the Nuclear Waste Project Office, that Yucca Mountain is completely unsuitable for a nuclear waste storage site.

Air Force Brigadier General Joel T. Hall, a former Deputy Commander of NATO's 5th Allied Tactical Air Force who worked for DOE, told former Bush administration Energy Secretary James Watkins "this is the worst federal program I have ever seen or heard of."

"What is happening here is the development of tailored data, data files, computer models, and analysis to support and validate the selected conclusion that Yucca Mountain is suitable for a repository. What is happening here, notwithstanding your claims that 'we just want to do research,' is the pervasive focusing of all activities on 'licensing issues/strategies,' which completely refutes any claim to scientific objectivity and integrity regarding the study of Yucca Mountain," further stated Hall in a letter to Watkins.

According to an interview in the New York Times Magazine,

Jerry S. Szymanski (DOE geologist at the YMP) has worked for the DOE since 1983 and has taken many pains to distance himself from foes of nuclear power. However, Szymanski (pronounced Sha-man-ski) has voiced opposition to the Yucca Mountain site for many years.

Szymanski's report indicated his opposition and concern. "This report is not the act of a disgruntled employee or an anti-nuclear freak," he wrote in the preface of a study he made on Yucca Mountain. "Rather, it is the act of a deeply concerned scientist, a public servant, and a pro-nuclear activist."

Szymanski indicated that the pro-Yucca forces suffer from "banality of thought."

"That same kind of banality was responsible for the Holocaust," furthered Szymanski. His earliest memories are of the Holocaust in his native Poland.

"Today, banality is prompting the federal government to court disaster," Szymanski stated.

The following information came from actual accounting proposals for research monies that were approved through the office of William E. Schulze, UNLV director of research administration.

For the investigation of Microbially-Influenced Corrosion of Waste Containment Packages for the YMP — \$60,000 for Penny Amy, professor of biological sciences; for studying Rock Properties at the YMP — \$35,000 for Moses Karakouzian, associate professor of civil engineering; for

the Analysis of Crises Situations Through An Interactive, Multimedia Simulation of a Hazardous Materials Crisis/Bomb Threat and Corporate Crisis Management — \$35,000 for Pat Jonker, lecturer in the management department.

In addition, government and research scientists in the local community (who also have a large stake in the research monies being appropriated to carve a niche for themselves in the scientific community) are unwilling to admit, for obvious reasons, that the earthquake and volcanic geological dangers make storing nuclear waste at Yucca Mountain an unreasonable, treacherous plan.

When queried as to why UNLV doesn't involve itself in researching solar power, electric vehicles and alternative energy sources, Schulze stated "to my knowledge, there haven't been many people who have expressed an interest in those types of projects."

This seems to be in direct contrast with the desires of many students in the Engineering and Environmental Studies programs (as well as other programs) who have indicated a strong willingness to develop projects using alternative energy sources like electronic vehicles and solar power wind generators.

According to Nevada Nuclear Waste Project Office (NNWPO), "Accepting benefits seriously impairs Nevada's right to oppose the dump in the future, even in the face of serious geotechnical flaws. Nevada Attorney General

Frankie Sue Del Papa, as well as her predecessor, believes that accepting 'benefits' gives Nevada's implied consent to the project, and thus the State could not legally challenge it, even on health and safety grounds."

According to a Seismic Risk Map of the United States, Yucca Mountain is located in an area that the USGS has classified as being highly prone to earthquakes. The USGS designated the region as a Class 4 earthquake zone, which is the highest rating that can be given.

In fact, according to the USGS, there was an earthquake in June of 1992 which registered 5.6 on the Richter scale in the Yucca Mountain area. Several hundred aftershocks also increased the damages considerably.

It caused substantial damage to the YMP surface facilities. The whole area around Yucca Mountain is riddled with evidence of many past earthquakes (obvious to anyone who cares to look) and there are at least 33 known earthquake faults within the area being studied around the repository site. Two of those faults cut right through the fault itself.

Water and gas are the main catalysts for the corrosion of the containers used for the high-level nuclear waste. The definite earthquake arena makes it a reasonable certainty that in less than 100-300 years (the present life expectancy of the containers) water and gases will be in the underground portion of the facility and speed the corrosion of the containers.

Volcanic activity is another well-known fact about Yucca Mountain. The evidence for its long history of volcanic activity consists of material from volcanic eruptions found that date back to as far as 11 million years. In recent years, there has been active volcanic centers in the immediate vicinity of the Yucca site. Since the most recent volcanic activity is a relatively young (in geologic time) few thousand years old, and volcanic activity is expected based on the history of the area at least every few thousand years, it is going to experience volcanic activity within the next 10,000 years.

Eruptions are not predictable events. Mt. St. Helens is an example. But the relative certainty of volcanic activity is inevitable in a 10,000 year period of time. The waste isolation capability of the facility will be severely impaired when the volcanic activity occurs.

All of the above are excluding the thermal loading. Thermal loading is caused from the effects of the heat generated by the spent nuclear fuel and high-level radioactive waste. Not only are the wastes highly radioactive, but also the spent fuel generates a huge amount of heat. Underground heat acts as a catalyst to fracture rock, affects water movement in the subsurface area, and changes environmental conditions at the surface.

Spent fuel temperatures will remain at the hundreds of degrees initially, but after 100 years the spent fuel will still be hot enough to boil water instantly. Also, the very hot spent fuel will be transported across the United States from the nuclear power plants all the way to Yucca Mountain.

The rock at Yucca Mountain is already highly fractured. Any underground facility that has a temperature hot enough to boil water will turn the water in the rocks to vapor. The vapor will be forced away from the heat source until it cools and becomes liquid again.

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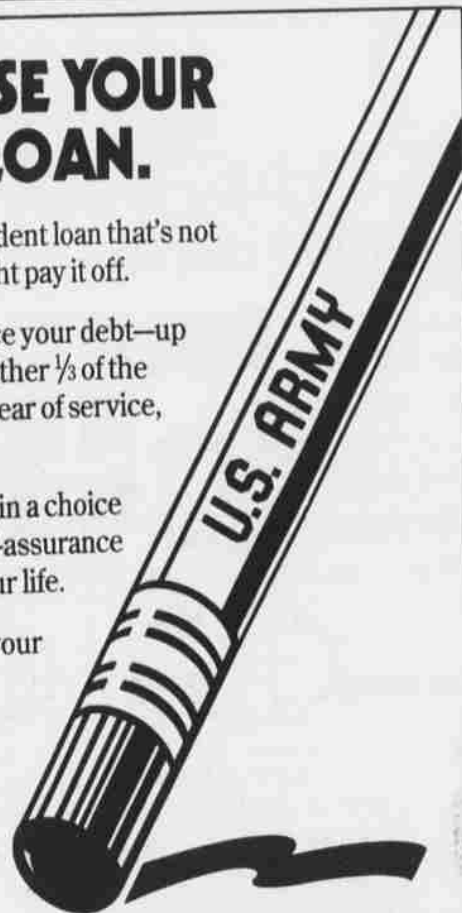
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