

# Yucca Mountain News

Publication of:  
Churchill County Nuclear  
Projects Oversight Program

Summer Issue 2004

## Scientists shift view on cask corrosion at Yucca



Rugged transportation casks will travel on dedicated trains to the Yucca Mountain facility.

LAS VEGAS - Prominent scientists have shifted their stance on a key element of a national nuclear waste dump in Nevada, saying they no longer fear one type of corrosion would quickly weaken casks designed to contain radioactivity.

The new position by members of the Nuclear Waste Technical Review Board boosts plans for the Yucca Mountain repository while the Energy Department prepares to seek a crucial operating license from the Nuclear Regulatory Commission.

Board executive William Barnard attributed the shift to the evolution of understanding about the first-of-its-kind repository.

"It's a learning process for DOE," he said, "and a learning process for the board." Opponents downplayed the effect the finding would have on state efforts to block the federal government from burying the nation's most radioactive waste 90 miles northwest of Las Vegas.

Steve Frishman, a state consultant on Yucca Mountain, said that while it appeared the Energy Department had solved one corrosion problem, Yucca engineers had not addressed questions about other minerals that could create problems.

Sen. Harry Reid, D-Nev., insisted that "overwhelming scientific evidence shows that Yucca Mountain is not safe."

"Deciding which type of corrosion is most dangerous will not change that underlying fact," he said.

The Energy Department maintains the Yucca project will be safe.

The board outlined its position in a four-page letter to Margaret Chu, director of Energy Department's Office of Civilian Radioactive Waste Management, which directs the Yucca project. Chu did not plan to comment, a spokesman said.

Technical Review Board staff members said that while some concerns had been allayed, more needed to be known before scientists can be confident the Yucca Mountain repository would work the way the Energy Department expects.

Congress in 2002 picked Yucca Mountain as the site to bury 77,000 tons of highly radioactive waste from commercial nuclear reactors and military and industrial sites in 39 states.

The Energy Department wants to open the repository in 2010 and spend 24 years entombing the waste in casks made of nickel 22 metal alloy in tunnels 1,000 feet below ground.

### Special Points of Interest

*It's a great day for Nevada and a great day for those of us who have stood by our convictions. I've said in all of my speeches that we filed in four or five different areas and we only really needed to win in one of them.* — Gov. Kenny Guinn (page 2)

*"It (the appeals court decision) means nothing to Nye County," Neth said after being told of the ruling. "It just means more money to the taxpayers. The people of Nevada have spoken as far as I'm concerned. They're tired of spending money to fight this thing when it could be a boon to the state."*

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## Scientists shift view on cask corrosion *(continued)*

The Technical Review Board threw a wrench into the plan last October, with a report based on Energy Department research that calcium chloride, a mineral compound, could react with moisture in the tunnels and form a brine that could corrode casks within 1,000 years. Such a finding would make it difficult for the repository to win an operating license.

The review board, created by Congress to evaluate Yucca science, convened a two-day seminar in May at which the Energy Department and other organizations presented updated analyses. *Source: Associated Press*



Japanese scientists examine a fault that had been discovered in the wall of one of the exploratory tunnels carved out of the interior of Yucca Mountain.

## The dump's dead, say Yucca foes

WASHINGTON — A federal appeals court threw out most of Nevada's legal arguments to stop Yucca Mountain but handed the Silver State one victory that could delay or possibly derail building the nuclear waste repository.

The U.S. Court of Appeals in Washington said the government had to make sure Nevadans would be protected from radiation for more than 10,000 years, which was the standard set for Yucca Mountain.

Energy Department officials called it a technical point that could be remedied, but Nevada officials said it would halt the waste dump.

"The project's over. It's effectively dead," said Bob Loux, who heads the state's Agency for Nuclear Projects, which opposes Yucca Mountain. "In our view, we're planning the party."

The court rejected all but one of Nevada's arguments, including its challenge of the process for designating Yucca Mountain as the nation's nuclear waste dump and its challenge of the constitutionality of the federal government taking Nevada's rights to the land.

But the court said the government's 10,000-year safety standard for radiation needs to be reviewed.

The 10,000-year standard is a crucial issue for determining whether to build the waste dump at Yucca Mountain, about 90 miles northwest of Las Vegas.

But it remains unclear how the court's decision will affect the project.

The department was reviewing the decision to determine whether it would slow down the project, said Joe Davis, a Department of Energy spokesman. The Energy Department must file its application to the Nuclear Regulatory Commission by December to stay on schedule to start storing nuclear waste from power plants and government facilities by 2010.

"DOE will be working with the EPA and Congress to determine appropriate steps to address this issue," Energy Secretary Spencer Abraham said in a statement.

Congress wrote a law saying the Environmental Protection Agency was to develop a radiation standard that would prevent humans from being harmed based on recommendations by the National Academies of Science (NAS). The NAS said the peak exposure of radiation to humans would be hundreds of thousands of years, and the nuclear waste repository should be designed to last that long.

But the EPA set the standard at 10,000 years, which would be easier for Yucca Mountain to meet.

The appeals court ruled that the EPA standard was inconsistent with the NAS findings, but did not state what the standard should be.

*(Continued on page 5)*

## Rural areas unfazed by Yucca ruling

A federal appeals court decision made in the first week of July could set the planned nuclear waste repository at Yucca Mountain back indefinitely and went almost unnoticed in rural Nevada by some of those most affected by the ruling.

Henry Neth, chairman of the Nye County Commission, said that he had not yet been briefed on the decision, which came after the court found that the federal Environmental Protection Agency's 10,000-year safety benchmark at Yucca Mountain was incorrect.

Neth and other rural Nevada leaders have touted the proposed 319-mile rail line to Yucca Mountain as a boon for cash-strapped local economies.

Further studies, he said, would only drain more money from state taxpayers.

"It (the appeals court decision) means nothing to Nye County," Neth said after being told of the ruling. "It just means more money to the taxpayers. The people of Nevada have spoken as far as I'm concerned. They're tired of spending money to fight this thing when it could be a boon to the state."

Lea Rasura-Alfano, coordinator for the Lincoln County Nuclear Oversight Program, refused to discuss the decision and referred calls to Lincoln County Commission Chairman Spencer Hafen. Several phone calls to Hafen were not returned.

Work will continue on the project while appeals of the court decision are made, but the ruling gave Nevada officials who have been fighting the proposal to build the nuclear waste dump 90 miles northwest of Las Vegas.

The anti-Yucca sentiment, which permeates throughout the state, isn't as strong in the counties where there will be impacts, in large part because of the potential economic impact of the project -- new jobs and federal money.

Caliente Mayor Kevin Phillips, a long-time advocate for Yucca Mountain, called the state's efforts to stop the project "misguided."

"It's unfortunate we're spending the kind of money we are on what I think is a futile cause," he said.

Lincoln County Commissioner Tommy Rowe was out of town when the court handed down its decision -- considered a victory by state leaders -- and said he had not yet spoken with other commissioners about the decision.

If built, the rail line would carve a path through Caliente and much of rural Lincoln County before reaching Yucca Mountain, located 90 miles northwest of Las Vegas in Nye County.

Rowe, while never a particularly outspoken proponent of the project, previously said the rail line is inevitable and that the county should focus on negotiating for benefits.

"Both sides (the state and the federal government) claim victory so I don't know if we're in the same spot as we were before," Rowe said of differing

analysis of the court's decision. "If it does go through we should get our benefits."

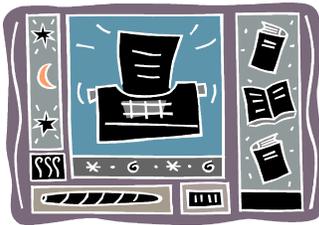
Nevada leaders viewed the ruling as a victory for the state, as the decision effectively put the project on indefinite hold while scientists reassess safety concerns stemming from proposed nuclear waste dump. The federal government, however, claimed victory after the three-judge panel's decision to strike down Nevada's claim that the dump was unconstitutional. *Source—Las Vegas Sun*



## Yucca Mountain Documents Made Available for Licensing Proceeding

WASHINGTON, June 30, 2004 -- The U.S. Department of Energy (DOE) today certified to the Nuclear Regulatory Commission (NRC) the public availability through the Internet of approximately 1.2 million documents totaling some 5.6 million pages regarding Yucca Mountain. The documents are available on the Department's website, and will be included in the NRC's Licensing Support Network (LSN). This certification is in anticipation of DOE's submitting a license application for Yucca Mountain to the NRC by December of this year. Following submittal of the license application, the Commission will conduct a full and public adjudicatory process on the license application, for which Federal law contemplates a three- to four-year time period.

DOE has previously released a substantial number of scientific documents related to Yucca Mountain, including the Yucca Mountain Science and Engineering Report, Site Suitability Evaluation, and Final Environmental Impact Statement. Many of the 1.2 million documents served as background material for those reports. The documents represent the scientific studies, evaluations, and opinions of more than 20 years of scientific study of Yucca Mountain. Each individual document represents only a piece of the information in the development of the license application.



All information must be considered in context and as part of the entire set of documents for any user to draw substantive conclusions about the scientific information in the license application. Selective use of individual documents or portions of documents by any user, including DOE, outside the context provided by other relevant documents is likely to result in inappropriate, faulty, or misleading conclusions.

If the 5.6 million pages searchable on the Internet were stacked one on top of the other, the stack would reach a height of approximately 1,800 feet – some 3 times the height of the Washington Monument. Laid end-to-end, these 5.6 million pages would extend approximately 1,000 miles or almost one-half the distance from Washington, D.C. to Las Vegas, NV.

The DOE will be providing additional documents to the LSN as an ongoing activity. Other participants in the licensing proceeding are also required to submit documents to the LSN.

Documents submitted to the NRC may be accessed at <http://www.ocrwm.doe.gov>, and will be available through the NRC's LSN web site at <http://www.lsnnet.gov>. Persons without access to Internet connections may use the public access computers at the at most libraries worldwide. *Source: DOE Office of Civilian Radioactive Waste Management*

## Nevada Requests More Funds to Keep Fighting Yucca Project

Nevada is asking the Nuclear Regulatory Commission for millions of dollars to continue fighting government plans for a national nuclear waste dump in the state.

"We are coming to you with hat in hand but with a justifiable argument why we should get assistance," Joe Egan, the state's lead anti-Yucca lawyer, told commission officials in Washington.

The state got no immediate commitment from Jack Strosnider, head of the commission's office of Nuclear Material Safety and Safeguards, and staff members from the Office of General Counsel in Washington.

Janet Kotra, an NRC senior project manager, said the commission might not be able to grant the request, but said the state should get a decision later this year.

Kotra said commissioners in 1985 interpreted NRC regulations to rule out such financial assistance and that decisions about federal funding for the state's Yucca efforts might be up to the Energy Department.



The Energy Department has given the state \$1 million for Yucca activities this year and rejected state requests for more. The state has sued, arguing it is entitled to more funding under the Nuclear Waste Policy Act of 1982.

It also submitted a 34-page funding request to the NRC in May.

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“Without financial assistance for Nevada, the Yucca Mountain licensing proceeding will be seriously compromised by Nevada’s inability to participate meaningfully and by the lopsided nature of the parties and their respective resources,” the petition said.

The state opposes the Yucca plan, and Bob Loux, state director of nuclear projects, has projected the cost of fighting the license application at \$10 million a year for at least four years.

Included in the NRC request is \$2 million to examine repository performance, \$1.8 million to continue corrosion research, \$800,000 for hydrology work and \$600,000 for transportation analyses.

Nevada also seeks \$4.75 million to pay Egan and his law firm, based in McLean, Va.

## Reid Pushes Plan to Aid Workers Exposed to Silica Dust

Sen. Harry Reid says he might try to gain compensation for workers who believe their efforts to drill the exploratory tunnel at Yucca Mountain have led them to contact lung disease. “I think we need to get them some treatment,” said Reid. “They should be compensated.”

DOE admitted that it knew silica, which can cause the lung disease silicosis, existed at Yucca Mountain but did not require workers digging a tunnel or mining rock there to wear protective gear to protect against silica.

Reid criticized Energy Secretary Spencer Abraham over the Yucca Mountain Project, but did not detail his plans, which he outlined briefly at the Senate hearing in Nevada.

“DOE’s record for protecting workers from foreseeable risks is just horrible,” Reid told Abraham. “I’m not making this up.” Reid’s office noted that the senator’s father was a miner who suffered from silicosis.

Abraham did not immediately respond to Reid’s comments at the Senate hearing, but later in the hearing he defended DOE. He said the department established a free health screening program for Yucca Mountain employees and former tunnel workers soon after the issue came to its attention last years. *Source: Nuclear Waste News*



## The dump’s dead (continued)

(Continued from page 2)

Joe Egan, an attorney representing Nevada, said EPA will have set a standard far beyond 10,000 years, which Yucca Mountain cannot meet.

“All the performance runs of the repository show that after 10,000 years, it starts to leak (radiation) like a sieve,” Egan said. “The radiation doses would vastly exceed the EPA’s rule.”

“It’s the ballgame, in our view,” he said.

Not so, according to the Nuclear Energy Institute, an industry trade group representing utility companies.

Congress could pass a law ordering the 10,000-year standard or the government could ask for a rehearing on that one point, said Mike Bauser, associate general counsel for group. Or the EPA could rewrite its rule to solve the problem, he said.

“(Nevada) lost everything except the potential issue of period of compliance,” Bauser said. “The program, site-selection process and other elements of the program that were challenged all remain intact.”

• • • Nevada officials cheered Friday’s federal appeals court decision on Yucca Mountain: “The court’s ruling is a significant blow to the Department of Energy and the Yucca Mountain project and I believe enough to effectively kill the project,” — *Sen. Harry Reid, D-Nev.*

“Today’s court ruling provides Nevada a crucial legal tool to defeat the Yucca Mountain project once and for all,” — *Sen. John Ensign, R-Nev.*

“It’s a great day for Nevada and a great day for those of us who have stood by our convictions. I’ve said in all of my speeches that we filed in four or five different areas and we only really needed to win in one of them.” — *Gov. Kenny Guinn*

“Nevada has been united in its fight. This decision, in part, said there are significant risks to the safety of Nevadans, and I think, the entire country.” — *Former Nevada Attorney General Frankie Sue Del Papa*

## Judges to hear state's complaint on nuclear documents

WASHINGTON -- A three-judge panel will hear Nevada's complaint that the Energy Department has not filed all of its backup documents with the Nuclear Regulatory Commission, a complaint that if upheld could delay the department's licensing request.

Nevada officials charge that the federal government has not properly "certified" its documents -- the backup information is supposed to be public six months before the license application.

Nevada officials argue that the law requires that the documents must be on an NRC Web site. The department says it satisfied the law by putting the documents on its own Web site while the NRC processes the documents.

If the judges side with Nevada, the database would not satisfy the Nuclear Regulatory Commission's requirements that begin the Yucca Mountain licensing process, said Joe Egan, a lawyer who represents Nevada on Yucca issues.

That could cause another delay in the department's plan to submit the project's license application to the commission in December, which could stall the entire project. Nevada already believes work on the application is in jeopardy because Friday's federal appeals court decision threw out the project's 10,000-year radiation compliance standard, leaving a hole in the commission's licensing rules.

The department intends to continue work on the ap-

plication and supplement it later if the Environmental Protection Agency issues a new radiation standard, officials have said. It insists it will meet its December application deadline and still open the site by 2010.

The commission's Pre-License Application Board, a three-judge panel, announced Wednesday it will hear oral arguments on July 27 on Nevada's challenges. *Source—Washington*



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*This newsletter is a publication of the Churchill County Repository Planning and Oversight Program. Churchill County is one of ten Affected Units of Local Government (AULG) involved in the proposed Yucca Mountain Repository. Funding provided to Churchill County is paid by users of electricity generated by nuclear power plants, under a general contract with nuclear generating utilities. The federal government collects a fee of one mill (one-tenth of a cent) per kilowatt-hour from utility companies for nuclear generated electricity. The money goes into the Nuclear Waste fund which is used to fund all program related activities.*

*For more information on Churchill County's program contact Churchill County Nuclear Waste Oversight Program at 85 North Taylor, Fallon, NV 89406, (775) 428-1592. Additional information on the repository program can be obtained from the U.S. Department of Energy, Yucca Mountain, Site Characterization Project Office at (702) 794-1444 or contact them at [www.ymp.gov](http://www.ymp.gov), or the Nevada Agency for Nuclear Project, Nuclear Waste Project Office, Capital Complex, Carson City, Nevada 89570, (775) 687-3744 or visit them at their web site at [www.state.nv.us/nucwaste](http://www.state.nv.us/nucwaste)*