

## Official confident Yucca plan to clear licensing challenges

A top Department of Energy (DOE) official expressed confidence on June 13th, that the DOE's voluminous application to build a Yucca Mountain nuclear waste repository will clear initial license hurdles.

"We believe we have met your requirements in terms of a complete and accurate license application. We have addressed all the acceptance criteria," repository director Ward Sproat told Nuclear Regulatory Commission staff at a briefing.

Sproat, head of the DOE's Office of Civilian Radioactive Waste Management, said the application was "complete and high quality." That is the criteria that NRC staff will



Edward F. Sproat, III "Ward"  
Director, Office of Civilian Radioactive Waste Management

use to judge whether to docket the DOE bid and initiate comprehensive safety reviews.

But Nevada officials who attended the same briefing said it confirmed to them the Yucca application has holes. They said DOE presenters made clear that more work remains to be done on detailed blueprints for the site 90 miles northwest of Las Vegas.

The purpose of the briefing scheduled for two days at NRC headquarters was for DOE to explain how it organized its 8,600 page application packet that was filed June 3, as well as thousands of pages of supporting documents. Officials stressed that issues of substance would not be discussed.

The level of detail in the application has emerged as an early point of contention in the licensing process.

DOE officials said the plans they submitted are acceptable. Nevada attorney general Catherine Cor-

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### DOE Submits Yucca Mountain License Application

On June 3rd, the U.S. Department of Energy submitted its Yucca Mountain license application to the Nuclear Regulatory Commission. The license application comes after nearly 25 years of scientific investigation and study at the site 100 miles north of Las Vegas. The Nuclear Regulatory Commission will now review the license for completeness. Formal hearings on the application will begin at the end of the year and will take about 3 years to complete at which time the Nuclear Regulatory Commission will decide to issue a license to construct the repository.



Delivery of the DOE's Yucca Mountain Nuclear Repository License Application to the Nuclear Regulatory Commission in Maryland, Md.

### Approximate Yucca Mountain Licensing Time Line

- June 2008 - DOE submits license application.
- October 2008 - The NRC decides on whether to accept (docket) license application and, if accepted, publishes a notice of hearing in the Federal Register.
- November 2008 - Potential parties submit request to participate in the hearings. Petitions include initial contentions.
- January 2009 - Licensing board rules on hearing participation request.
- June 2010 - Discovery (between participants) is complete. Licensing board finalizes issues to be litigated and sets a schedule for hearings.
- October 2010 - Hearings begin.
- January 2011 - Hearings end.
- May 2011 - Licensing board makes initial decision on whether to grant construction authorization.
- July 2011 - NRC commissioners complete supervisory review of licensing board's decision and construction authorization can be issued.

## Official confident (continued)

tez Masto filed a petition asking the top NRC commissioners to reject the DOE application as incomplete.

The commission has not ruled but in a legal opinion the week of June 22nd agency attorneys appeared to side with the DOE.

The attorneys said regulations do not require the DOE to "fully describe" all designs, as long as they provide "sufficient information" about components important to safety.

In one of the DOE presentations June 18th, Yucca regulatory director William Boyle said the design detail was consistent with NRC's regulations and its repository review plan. DOE is using NRC-approved methodologies to set the technical boundaries within which the final designs would fit, he said.

Likewise on nuclear waste casks and containers, the DOE evaluated representative designs since it has only recently awarded contracts for the specific multi-purpose canisters that would be used at the site.

Martin Malsch, an attorney for Nevada, also questioned whether 196 documents the DOE has submitted as primary references will be considered an official part of the license application.

If the NRC deems they are not part of the application, they may be out of reach from Nevada legal challenges.

The NRC staff has until September to decide whether to docket the repository application for further reviews and hearings that could consume the next three or four years at least.

## Accessing the License Application

*The Yucca Mountain License Application is available on the Nuclear Regulatory Commission's public Internet site at <http://www.nrc.gov/waste/hlw-disposal/yucca-lic-app.html>.*

*The License Application is available to the public in hard copy at the following locations:*

*Pahrump Information Center  
2341 Postal Drive  
Pahrump, NV 89048  
(775) 727-0896*

*Beatty Library District  
4th Street and Ward  
Beatty, NV 89003  
(775) 553-2257*

*National Nuclear Security Administration Nevada Site Office  
Public Reading Room  
Frank H. Rogers Building  
755 E. Flamingo Road, Suite 103  
Las Vegas, NV 89119  
(702) 794-5117*

*DOE Forrestal Public Reading Room  
1000 Independence Avenue, SW  
Room 1G-033  
Washington, DC 20585  
(202) 586-3142*

*Pahrump Community Library  
701 S. East Street  
Pahrump, NV 89048  
(775) 727-5930*

*Amargosa Valley Public Library  
829 E. Farm Road  
Amargosa, NV 89020  
(775) 372-5340*

*The licensing process is open to the public - DOE's license application references studies were conducted by more than 3,000 scientists and engineers representing five national laboratories and several major universities. The licensing process will require full public disclosure of all documentation of this work.*

*The NRC established an Internet-based Licensing Support Network to catalog these documents. Already, millions of documents are available for public viewing at [www.lsnnet.gov](http://www.lsnnet.gov). The NRC also plans to test the value of webcasting licensing hearings to further expand access to this information.*

## \$9 billion later, Yucca gets its day

The only indication that June 18th was a special day at the Nuclear Regulatory Commission was the long line of people trying to get inside the towering headquarters, situated out in the suburbs.

The compound has especially tight security, even by Washington standards.

Still, the Energy Department's formal presentation of its long-awaited Yucca Mountain application drew a crowd. Guards were processing visitor passes. People were late.

"I've been waiting 40 years for this meeting," shrugged one guy in line. A few more minutes wouldn't matter.

"I've only been waiting 30," offered another.

The actual presentation of the application for the nuclear waste repository 90 miles outside of Las Vegas had a tough time living up to the hype. There was lots of technical house-cleaning about which documents could be found where, and how the thousands of pages were organized.

Even the high-tech hook-up with Las Vegas, which linked the meeting by sight and sound, was a little fuzzy. You couldn't quite make from this end out who was watching from the desert.

The Energy Department's project director, Edward "Ward" Sproat, summed up what some of the couple hundred gathered probably felt when he said many in the room had been working on Yucca Mountain "for a long time."

"Many of whom probably felt they'd never see this day come," he added.

Among those participating were Nevada's representatives, who are fighting the project, a representative from Clark County and former Gov. Bob List, who is representing four rural counties just north of the site.

List had drawn some criticism in Nevada a few years ago when he went to work for the Nuclear Energy Institute, the main industry lobbying promoting Yucca Mountain. But he said they dropped his contract in December, and now he represents the rural counties who want to be environmentally protected

but who are also interested in economic development possibilities if Yucca Mountain goes forward.

"This day's been a long time coming," List said. "I think everybody wants to get an answer on this."

The state, however, has questions.

(Quick primer: Yucca Mountain was chosen as the nation's nuclear waste dump 20 years ago. It was supposed to open in 1998, but is now slated to open by 2017. Supporters say the country needs a central waste storage facility. Opponents worry the government plan will pollute Nevada with toxic waste. So far, \$9 billion has been spent.)

Martin G. Malsch, the state's lead attorney fighting the process, posed one simple question early during the proceeding.

The state is concerned because the Energy Department offered 196 supporting items, but refused to formally submit them as part of the license.

Leaving the items in a gray zone puts the state in a tough spot, creating a bit of a moving target as it tries to argue against the license.

"The most fundamental question we face is what is the license application?" Malsch asked the gathering. "The answer to that question is very important to us."

The question led to some scrambling among officials at the Nuclear Regulatory Commission, the government agency that will decide by Labor Day whether the application can be accepted for formal review – which could then take up to four years. *Source: Las Vegas Review Journal*



Yucca Mountain Ridge 90 miles northwest of Las Vegas

## 'Dumb as we wanna be'

The federal government's effort to store 77,000 tons of spent nuclear fuel at Yucca Mountain began with the passage of the Nuclear Waste Policy Act in 1983. Since then, the effort has had a rough and expensive ride.

In the first part of this brief history of Yucca Mountain, we looked at the first years of the project. In Part 2, we trace some of the politics that have driven the project, suggest reasons why the effort has not succeeded up to now, and discuss the price we have paid for our failures.

### Yucca stalls

The U.S. Department of Energy's (DOE) workman-like approach in dealing with Nevadans on Yucca Mountain is, I believe, a symptom of the agency's and the nuclear industry's misunderstanding of the spent nuclear fuel storage issue.

Prior to 1983, DOE officials had been advised by Battelle, one of their large contractors, that successful construction of a repository for spent nuclear fuel was much more a social-political problem than a technical challenge.

The engineers and scientists, a Battelle report stated, could handle quite well the safe transportation and permanent storage of the spent nuclear fuel. However, if social and political aspects of the storage of spent nuclear fuel were not dealt with effectively, Battelle suggested, the effort could become controversial and divisive.

The issue was ripe for political manipulation.

For several years following DOE's first public meeting on Yucca Mountain, held in Las Vegas in early 1983, I believe opinion in Nevada regarding the repository was rather soft; most people didn't take a firm position one way or the other. I believe this was still some-

what true even after 1987, when Yucca Mountain was singled out as the sole candidate for a spent fuel repository.

People wanted more information; they needed to be persuaded.

In my travels in Las Vegas and in Nye, Esmeralda, Eureka and Lincoln counties, most people with whom I spoke were not worked up about the issue. When people did have opinions, they were likely to be weakly held.

Perhaps uppermost in most people's minds was, "What's in it for us?"

In the rural areas it was, "Hey, we need jobs out here."



*"I believe Nevada's opposition to Yucca Mountain has been costly in many ways." Bob McCracken*

Most of Nevada's congressional delegation had open minds on Yucca Mountain for several years after 1983. Nevada Sen. Chic Hecht, a Republican who took office in January 1983 and described himself to me as President Ronald Reagan's man in the Senate, was strongly pro-repository and very much a champion of Nye County's interests.

Judging from accounts in the press, Republican Sen. Paul Laxalt, also a strong Reagan supporter who served between 1975 and 1987, was also pro-Yucca Mountain.

Representative Barbara Vucanovic, a Republican from Nevada's 2nd Congressional District, appeared open-minded about the repository. Harry Reid was the only member

of Nevada's congressional delegation who strongly opposed the proposed Yucca Mountain repository in those first years.

The Las Vegas Sun and its editor, Hank Greenspun, were adamantly opposed, as they had been to the Nevada Test Site throughout its history. The Las Vegas Review Journal for years was equivocal on Yucca Mountain, I would say neither strongly in favor nor opposed.

The big Las Vegas casinos for years were also equivocal.

In the meantime, anti-Yucca Mountain, anti-nuclear opinion among many in Nevada was slowly taking root, especially in the urban areas.

Perhaps a significant amount of this negative opinion may have come from the many newcomers to the state in this period. Chernobyl in 1987 had the effect of feeding it. Anti-Yucca Mountain sentiment was free to develop more or less unimpeded in the state, having been given a free ride by the failures of DOE and others in favor of nuclear power to educate the public and counter the negativity.

The Las Vegas Sun put out a steady stream of biased information on Yucca Mountain and nuclear energy technology. They even had a reporter, Mary Manning, whose specialty was nuclear negativity.

The negativity from Bob Loux's state office has never stopped. Both Harry Reid and Richard Bryan rode the anti-Yucca Mountain sentiment they had helped create to the Senate.

Reid moved to the Senate in 1987, replacing Laxalt. Bryan moved from Nevada governor to the Senate in 1989 by defeating Hecht.

About a year before he died, Hecht told me he attributed his defeat

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## 'Dumb as we wanna be' (continued)

primarily to Bryan's milking of the Yucca Mountain issue.

In about 1986, I suggested to Loux that Bryan was on the wrong side of the Yucca Mountain issue.

"Are you kidding?" he replied. "It's the best issue he's got."

Instead of two pro-Yucca Mountain senators, by 1989 Nevada had two senators who strongly opposed it. The die was nearly cast.

I asked Hecht how Bryan and Reid knew early on Yucca Mountain was going to be such a good issue for them. He replied, "Fear always makes a powerful issue for a politician."

Bryan retired after two terms in the Senate; Reid built his political career around his opposition to Yucca Mountain and has been highly effective in playing the role of obstructionist.

From the late 1980s on, most Nevada politicians from both sides of the aisle have been obliged to toe the anti-Yucca Mountain party line.

### Costs we pay

I believe Nevada's opposition to Yucca Mountain has been costly in many ways.



The federal government collects a tax on all nuclear power produced in the United States.

So far, \$27.2 billion has been collected under that tax. As of fiscal year 2006, almost \$10 billion has been spent on programs for permanent storage of spent nuclear fuel. As of September 2007, \$6.9 billion had been dispersed for the Yucca Mountain effort.

Since the federal government was required by law to begin accepting spent nuclear fuel from the utilities in 1997, nuclear power producers have taken to suing the federal government for breach of contract.

So far, they have been awarded more than \$7 billion. That's a total of \$17 billion out of the public's pocket and not much to show for it.

But these costs are probably insignificant compared to the damage done to the earth's environment because of the U.S.'s failure to close the nuclear fuel cycle.

Untold numbers of gas- and coal-burning power plants have been



constructed while further development of nuclear power has been on hold. Much, if not most, of that fossil fuel-based power production -- yesterday's technology -- could have been nuclear.

How much carbon dioxide, mercury and other toxic substances, some of them radioactive -- yes, burning coal sends radioactive substances naturally present in coal up the smokestack -- have been discharged into the earth's atmosphere because of this failure?

The damage done to the earth's environment, not to mention human health, is impossible to calculate, but it is likely considerable.

And then there are missed economic and social opportunities for Nye County, Nevadans and the country.

If the cards had been played right, Yucca Mountain could have seeded the development of a large advanced energy and nuclear science technology complex perhaps unmatched in the world.

In the 1980s and 1990s, it was not obvious to most that the world was headed for serious, potentially catastrophic energy and related global warming problems. The supposed need to store nuclear "waste" safely in the ground for 10,000 years, or for 1 million years, as the state of Nevada foolishly demands, was not seen as overkill.

We didn't seem to understand that there is more recoverable energy in the 77,000 tons of spent nuclear fuel intended for Yucca Mountain than in all the oil and gas in Saudi Arabia.

It is becoming increasingly clear that the nuclear "waste" to which the anti-Yucca Mountain forces have been opposed, will soon become the basis of a huge new energy industry, and Nevada (particularly Nye County) could have been -- and may still have a chance to be -- at the center of things.

That spent nuclear fuel intended for Yucca Mountain is going to be reprocessed and turned into electricity by somebody somewhere -- why not us?

The Tennessee Valley Authority just received \$4 million from the Department of Energy to develop a conceptual design for "a nuclear waste reprocessing plant." A friend who lives in east Tennessee told me, "That money should be going to Nevada."

The French have been smart about all of this. Today, France gets about 80 percent of its electric power from 59 nuclear reactors. The French, who enjoy as high a standard of living as we and a longer life expectancy, dump less than one-half the amount of carbon per capita into the atmosphere that we do.

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### 'Dumb as we wanna be' (continued)

France's reliance on nuclear power is the main reason.

In the 1970s, France analyzed its energy situation -- "No oil, no gas, no coal, no choice," they said. They concluded nuclear was the best option. The public was educated on the pros and cons and the people made a rational choice about the future.

With gas costing more than \$120 per barrel and global warming coming at us like a freight train, it's a different world from the time when Richard Bryan and Harry Reid announced their opposition to Yucca Mountain.

The day is not far off when such an unfortunate view will get a politician in trouble. But we have paid a price. *The first part of Bob's column was published on page A8 in the June 13 edition of the Pahrump Valley Times.*

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**Lander County Repository Planning and Oversight Program**

This newsletter is a publication of the Lander County Repository Planning and Oversight Program. Lander county is one of ten affected units of local government (AULG) involved in the proposed Yucca Mountain Repository. Funding provided to Lander 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. Articles in this newsletter may not necessarily reflect the positions or opinions of the Lander County Board of Commissioners

For more information on Lander County's program contact Deborah Teske at the Community Development Department (775) 635-2860 or Joy Brandt at (775) 964-2447 in Austin, NV. Additional information can be obtained from the U.S. Department of Energy, Yucca Mountain, Site Characterization Project Office at (702) 794-1444 or contact them at [ocrwm.doe.gov](http://ocrwm.doe.gov). The Nevada Agency for Nuclear Project, Nuclear Waste Project Office, Capital Complex, Carson City, NV. 89570, (775) 687-3744 or at their web site [state.nv.us/nucwaste](http://state.nv.us/nucwaste). Lander County's Nuclear Waste Oversight web site is at [landercountynwop.com](http://landercountynwop.com). *Editors: Rex Massey, & Deborah Teske, Graphics, design & format, Loreen Pitchford*

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