

## Yucca Boosted by Incoming Chairman of Energy Panel

WASHINGTON -- The incoming chairman of the Senate Energy Committee said that Yucca Mountain remains the best option for nuclear waste disposal and voiced skepticism about the alternative plan backed by Nevada's congressional delegation.

The proposed nuclear waste dump "is the best of the options available to us at the current time assuming that the Nuclear Regulatory Commission determines that it's an appropriate site," Democratic Sen. Jeff Bingaman said.

Sen. Harry Reid, D-Nev., and Nevada's other federal lawmakers want to store nuclear waste at the reactor sites around the country where some 50,000 tons of the stuff now sits.

"I don't think that's politically viable. I don't believe that will become law," Bingaman said.



*Incoming Chairman of the US Committee on Energy & Natural Resources, Senator Jeff Bingaman, (D) N. Mex.*

When Democrats take over Congress from the GOP in January, Bingaman will re-

place Sen. Pete Domenici, R-N.M., as head of the committee with oversight of the proposed nuclear waste dump the Energy Department is trying to build.

Domenici has been one of Yucca Mountain's strongest congressional supporters, introducing legislation the Bush administration has said is needed to move the troubled project forward.

Reid, who will become Senate Majority Leader, has said he would not allow any pro-Yucca bills to reach the Senate floor. Bingaman said he hasn't discussed with Reid what will happen with future legislation. *Source: Associated Press*

## DOE Promotes Nuclear Energy

Beginning construction of the first U.S. nuclear power plant in more than 30 years and convincing the public that the government can handle nuclear waste are key Bush Administration energy policy goals for its last 800 days in office, according to Clay Sell, deputy secretary of the Department of Energy.

Sell spoke on Dec. 5 to a conference of several hundred nuclear advocates, drawn together by the promise of the Admini-



*Clay Sell, deputy secretary of the Department of Energy*

stration's proposed Global Nuclear Energy Partnership. Global Nuclear Energy Partnership (GNEP) would have the U.S. lead an international partnership to expand use of nuclear energy and to reprocess spent nuclear fuel for reuse throughout the world. Currently, however, the U.S. by law may not reprocess spent fuel and must place it in an underground repository.

But Sell laid out a new U.S. nuclear waste program that will undertake reprocessing and re-

### Inside this issue:

■ Nevada Challenging Plan for Handling Yucca Mountain Nuclear Waste	2
■ Rising Interest in Nuclear Power Brings New Life to Uranium Mining	3
■ US Court Awards SMUD \$39 Million for Nuclear Storage Costs	4
■ Aide says Reid Won't Yield in Opposing Yucca Project	4
■ Battle Mountain Impact Report—Transportation of Spent Nuclear Fuel	5

---

## DOE Promotes Nuclear Energy (continued)

*(Continued from page 1)*

use of spent fuel while work goes forward on the long-stalled Yucca Mountain repository in Nevada. Under the most optimistic scenarios, the repository will not open until 2017 to 2020, Sell said. Meanwhile, the Bush Administration wants nuclear power to advance.

"We think we can develop—on a temporary basis—the consolidation of spent nuclear fuel at several U.S. recycling locations where it can be dealt with and where we can extract great energy value while we are working on the long-term goal of licensing and building a permanent geological repository," Sell said. "Let's be real about 'temporary,'" he added, "we are talking about decades."

Some 11 U.S. communities have expressed an interest in housing a GNEP reprocessing facility, DOE says.

Recent changes in congressional leadership will present a stumbling block, particularly in the Senate, where Harry Reid (D-Nev.) will become majority leader. Reid, although a nuclear power supporter, opposes the waste repository's location in Nevada.

The Administration's and nuclear industry's challenge, Sell said, is to show Nevada residents that nuclear reprocessing and the repository will be a "tremendously positive thing," with new jobs and a new state industry.

"I see a future in Nevada where facilities out there become centers of excellence for some of the most important materials in the world."

*Source: Chemical & Engineering*

## Nevada Challenging Plan for Handling Yucca Mountain Nuclear Waste

The state of Nevada is challenging the newest Energy Department blueprints for aboveground handling of spent nuclear fuel before burial at Yucca Mountain.

In a protest prepared for submittal to the Nuclear Regulatory Commission, the state calls the size of concrete pads on which highly radioactive spent nuclear fuel would be "aged" in reinforced containers far beyond what Congress authorized for the Yucca site.



Nevada officials accused the Energy Department of planning speed removal of waste from sites in 39 states by circumventing a federal law forbidding nuclear waste from being placed in aboveground "monitored retrievable storage" at the Yucca site.

"Clearly, DOE's proposed 'aging facility' is nothing more than an unlawful MRS in embarrassingly thin disguise," state officials said in documents obtained by the Las Vegas

Review-Journal for a December 22, report.

The state said that while some aboveground handling might be necessary before burial, an aboveground facility with a capacity of 21,000 metric tons of nuclear waste would be too big.

Energy Department spokeswoman Gayle Fisher told the Review-Journal the aging pads were being designed to cover about 75 acres and hold 2,500 canisters, but could be reduced to 45 acres.

She said system engineers determined the capacity of the pads by calculating the rate at which nuclear waste containers would arrive at Yucca Mountain.

The state intends to ask the Nuclear Regulatory Commission to decide that no waste would be allowed at

Yucca Mountain without a "reasonable assurance" that it could be moved underground within a year.

Above ground, the containers would be vulnerable to earthquakes, plane crashes or terrorist attacks, the state said.

Energy Department officials previously described aging pads as part of a "thermal loading" strategy, where the heat of highly radioactive waste would be allowed to

dissipate to safe levels before canisters would be entombed.

Congress in 2002 approved burial of 70,000 metric tons of the nation's most radioactive waste at Yucca Mountain, 90 miles northwest of Las Vegas.

The plan has since been stalled by lawsuits, budget shortfalls and quality assurance questions. The target date for opening the repository, originally 1998, has been pushed back at least to 2017. *Source: Las Vegas Sun*

---

# Rising Interest in Nuclear Power Brings New Life to Uranium Mining

ARANDIS, Namibia -- This sandy little company town, with its tree-lined streets and concrete homes set amid a vast, forbidding desert, had all the signs of terminal decline just a few years back. Both banks closed. The only gas station shut off its pumps. And employable young men, realizing the bleak future of the giant uranium mine that gave Arandis life, began drifting away.

But something unexpected happened on the way to the funeral for Arandis: The nuclear industry, stagnant for two decades, reversed its fortunes at a time of rising oil prices and growing realization that burning fossil fuel caused global climate change. Nuclear went from being seen as a dirty source of energy to a comparatively clean, efficient one.

From that shift in perception, mainly in the minds of Westerners thousands of miles away, the fate of this remote African town went from doom to boom.

"The future was very dark," said the energetic mayor of Arandis, Daniel Muhuura, who like hundreds of residents here has spent his entire professional life working for Roessing Uranium Mine. "Now the future is very bright."

Dramatic turnarounds have happened across the continent as a quest for mineral riches, similar to the one that helped fuel the 19th century's "Scramble for Africa," has become a hot economic story of the decade. Decisions in boardrooms around the world have sent prices soaring for copper in Zambia, coltan in Congo and oil in Angola, Nigeria and Sudan.

From rising demand for these commodities, sub-Saharan Africa's economic growth has hit rates not seen in three decades.

Perhaps no renaissance, however, has matched that of the uranium industry's.

Roessing Uranium Mine opened in 1976 during nuclear power's heyday. But the Three Mile Island accident in 1979 and Chernobyl in 1986 caused a profound political backlash that nearly halted new reactor construction. Uncertainty about how to handle the dangerous radioactive waste created by nuclear power plants also contributed to its unpopularity.

By 2001, the price for uranium oxide had fallen to about \$7 a pound, one-sixth of its peak. Two years later, facing massive losses, Roessing announced plans to close.

Under that plan, the mine was to cease operations in 2007 after having dug 1 billion tons of rock out of a jagged, bleached landscape often compared to the surface of the moon. Instead, oil prices soared and global warming became the stuff of newspaper headlines and Hollywood movies. Interest in building new nuclear reactors grew, and the price of uranium oxide rose to \$62.50 a pound.

Roessing, which recently made its first delivery to an increasingly energy-hungry China, has decided to continue mining until at least 2016, mine officials say.

They expect to end this year with Roessing's first substantial profit, and tax bill to the Namibian government, in five years. And the mine, whose workforce dropped from 3,800 in the 1970s to 860 last year, has begun hiring again.

"It is definitely a dramatic change," said company spokesman Reha-beam Hoveka. "It is good news for Arandis. It is good news for Namibia, too."

A second uranium mine, meanwhile, is slated to open nearby soon. Three others within 60 miles are in various stages of development. So where Arandis was once going to be a mining town without a mine, soon there could be five in the area.

## *Firm's Boom Helps Namibian, Africa Town, Worries Environmentalists*

The boom in uranium mining has caused grumbling from the tourism industry, which fears the loss of pristine landscapes, and environmentalists, who fear damage to the fragile biodiversity of the Namib, regarded as the driest and oldest desert in the world.

Some environmentalists also are concerned about the renewed growth of an industry they still regard as dangerous despite industry claims of safety improvements since the Chernobyl disaster.

"They cannot tell us that they are safer than before," said Bertchen Kohrs, head of Earthlife Namibia, speaking from Windhoek, the capital. "It starts here with mining uranium, the whole cycle starts. Who says that some day we won't have to take back the nuclear waste here in Namibia?"

Roessing mine is a massive, dun-colored canyon two miles long, nearly a mile wide and more than 1,000 feet deep. From its lip, the giant dump trucks that haul uranium ore from the mine floor look like children's toys.

Several crushing machines pulverize the rock into sand, then powerful acids extract the traces of uranium. The end product, after processing, is a fine gray powder that leaves the mine in steel drums weighing 900 pounds. Mine officials say each holds as much potential energy as 40,000 barrels of oil.

*(Continued on page 4)*

## Rising Interest in Nuclear Power Brings New Life to Uranium Mining (continued)

*(Continued from page 3)*

All of Roessing's uranium oxide is used by civilian reactors, mine officials say, and is exported only to countries approved by the International Atomic Energy Agency.

The government of Iran owns 15 percent of Roessing, a legacy of early investment in the 1960s by the shah there. Mine officials say no shipment of uranium has ever been made to Iran, and the country has no right to the mine's product. Roessing's majority owner is Rio Tinto, a global mining conglomerate.

Officials in Arandis say they hope to use the unexpected revival of the mine to secure the future of their town, which already has, by African standards, an enviable infrastructure, including paved roads, a soccer stadium, a library, streetlights and steady sources of electricity and clean water. Two small clothing factories and a technical college provide some jobs not directly affiliated with the mine.

The banks have not resumed operations, but one recently opened a cash machine in Arandis, and work on a new gas station is to begin this month, said Muhuura, the mayor. With population on the rise again, the town recently made a deal with a builder to construct 50 homes.

The mine also has donated one of its dump trucks to Arandis, where it sits massively, with giant rubber wheels twice the height of most men, in the center of town. It is the first piece of what town officials hope is an eventual mining museum, part of the plan to help the town survive the next big downturn in uranium demand, whenever it comes. *Source: Washington Post Foreign Service*

## US Court Awards SMUD \$39 Million for Nuclear Storage Costs

The US Court of Federal Claims has awarded the Sacramento Municipal Utility District (SMUD) \$39.8 million in a breach of contract lawsuit against the US Department of Energy.

SMUD said the award comes after two related trials on the storage of spent nuclear fuel from the utility's closed Rancho Seco Generating Station.



SMUD had contracted with DOE to collect and permanently dispose of its spent nuclear fuel as required by federal law. But SMUD said the federal government did not follow through on its obligation to collect and dispose of SMUD's spent fuel due to delays in opening the Yucca Mountain storage facility in Nevada.

In 1998, SMUD filed a lawsuit with the Court of Federal Claims in Washington to recover the cost of building and operating a dry cask storage system because the federal government was not making progress on the Yucca Mountain disposal site.

"This is a major victory as it substantially mitigates the costs SMUD has incurred due to the lack of a federal repository," said Steve Cohn, SMUD chief assistant general counsel. *Source: Platts Electric Power Daily*

## Aide says Reid Won't Yield in Opposing Yucca Project

WASHINGTON -- Nuclear industry executives were told Thursday that Sen. Harry Reid, D-Nev., will not bend in his opposition to nuclear waste burial at Yucca Mountain.

"Senator Reid's opinion is not going to change," aide Drew Willison told participants at a nuclear conference.

Willison's comments came a day after Sen. Larry Craig, R-Idaho, told the group that he was planning to reintroduce a bill clearing a path for the Department of Energy to move forward on the planned nuclear fuel repository.

Reid, who will be Senate majority leader beginning in January, will have to deal with the issue, Craig said.

But Willison, Reid's clerk for energy and water programs on the Senate Appropriations Committee, said "it will be very difficult" for Reid to allow changes in nuclear waste law benefiting the Yucca bid.

"I don't think there is a case to be made in Nevada," where public opinion remains strong against Yucca, Willison said.

Though Craig said repository supporters might be able to attach a Yucca bill to other legislation moving in the Senate, Willison said, "It won't be moving for long if the majority leader is running the agenda."

Willison noted that DOE Deputy Secretary Clay Sell has said the Bush administration "wants to find new accommodations" on nuclear waste.

Other than that, the Reid aide said, "I don't want to say that Yucca Mountain will be moving along quickly." *Source: Washington Bureau*

---

# Battle Mountain Impact Report

## Transportation of Spent Nuclear Fuel to the Proposed Repository at Yucca Mountain, Nevada

If a high-level waste repository opens at Yucca Mountain, a large number of rail and potentially truck shipments of nuclear waste are expected to pass through Lander County and the Town of Battle Mountain. Under a new plan being considered by the Department of Energy (DOE), almost all train shipments from east of the Rockies would pass through Battle Mountain. This represents a marked departure from DOE's previous scenarios using routes mostly in southern Nevada.

In a previous report prepared for Lander County (Lander County Impact Report, Feb. 2006), population and maximum-exposed individual radiation doses were assessed for both incident-free and accident scenarios for shipments passing through the Battle Mountain/Lander County region in both east- and west-bound directions. The previous report assumed rail shipments from the east would not pass through Battle Mountain, but would instead go to Yucca Mountain through Caliente on the eastern side of the State. Rail shipments from the West would have passed through the area on the northern branch line of the Union Pacific Railroad.

With the potential of a rail line on the Western side of the State (Mina Route), all rail shipments from the East would pass through Battle Mountain. The current report provides a risk analysis solely of west-bound spent fuel shipments, many more than considered in



our previous report, and additionally provides an economic assessment of remediative costs for the north-central Nevada region, in the event of the most serious potential truck and rail accident scenarios, respectively.

Since the East to West rail line passes through the center of Battle Mountain, the report examines the effects of a rail accident location in downtown Battle Mountain, Nevada. This change is effected due to the higher traffic pattern across this rail crossing, which cumulatively raises its incident probability, and the greater population and development that would be likely impacted.

Waste shipments through Lander County could result in a radiation dose to the public even if the transport is incident-free, as no shielding material can fully inhibit direct gamma radiation by 100%. As a result, residents, drivers, pedestrians and workers will receive varying radiation doses, the amount of which is dependent on the recipient's proximity and duration exposed to the passing source material. Depending on population estimates, the population dose due to incident-free transportation of the entire waste that is planned to pass Battle Mountain could be as high as 10.1 person-rem. This dose level and the resulting population risk are relatively small.

*(Continued on page 6)*



# Battle Mountain Impact Report (continued)

(Continued from page 5)

In case of a severe accident involving a nuclear shipment, the dose to individuals and the population could be much higher. In contrast to incident-free transportation, such an accident would cause both acute and long-term exposures, because radioactive particulates would be dispersed in the environment and continue to lead to radiation exposures. A severe transportation accident leading to a release of radioactive particulates was also considered. Such an accident could be

caused by high impact, long duration fire or sabotage. Such an accident could lead to high radiation exposures due to inhalation (acute dose) and ground shine (long-term dose). Excerpt from report - by: J. D'Agostino, M.S. and M. Resnikoff, Ph.D.

*The full report can be accessed and downloaded from the Lander County Repository Planning and Oversight Website at [landercountynwop.com/publications](http://landercountynwop.com/publications)*

## 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 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.

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 [www.ymp.gov](http://www.ymp.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 <http://www.state.nv.us/nucwaste>. Lander County's Nuclear Waste Oversight website is at <http://www.landercountynwop.com>.

Lander County Repository Planning  
and Oversight Program  
825 N. Second St.  
Battle Mountain, NV 89820

Presorted Standard  
US Postage Paid  
Battle Mountain, NV  
Permit No. 255