

SPECIAL POINTS OF INTEREST:

- A new report says radiation doses occurring in the far distant future show the Yucca repository's geological and man-made design elements are working.
- A planned completion date of 2010 was recently abandoned by Department of Energy officials. They have yet to set a new date.

INSIDE THIS ISSUE:

- Report urges feds to keep 10,000-year radiation standard 2
- Energy Department not fazed by Yucca e-mails 2
- Regardless of what happens at Yucca, PFS wants Utah storage 3
- Americans' Average Radiation Exposure 4
- Homeland clarifies position on study of storage of nuclear fuel 5

Churchill High School Students Tour Yucca

In March the Churchill County High School science students took an annual trek to Yucca Mountain. This year marked the 10th trip that students from Churchill County have traveled to Beatty, Nevada, spending the night and rising early to board the DOE tour bus and head to the gates of Mercury, Nevada. This year over 35 students and their chaperones attended the tour.

The annual trip is organized and funded by the Churchill County Nuclear Waste Oversight Program and is encouraged as to provide local students an opportunity to see the controversial Yucca Mountain, which is

planned to house 77,000 tons of the nations high-level nuclear waste right in their neighborhood.

Along the drive from Beatty to Mercury a DOE tour guide talked about the scenic view and Area 25, which is Yucca Mountain. Once through the Mercury gates, he pointing out buildings and structures like the Bear Reactor Experiment Nevada (BREN) building, and Jackass Flats and Western Railroad which is the shortest rail road in the US at 12 miles short!

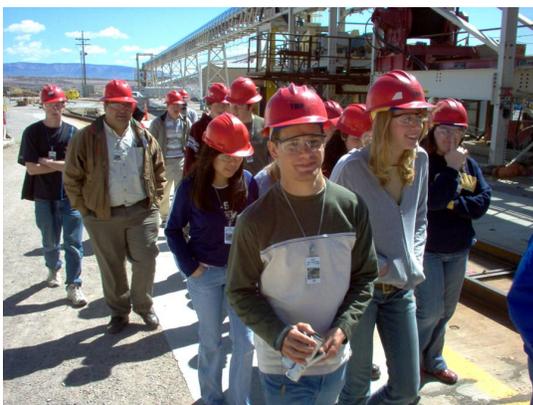
Outside the entrance to the tunnel students and chaperones posed for a photograph in front of the enormous tunnel boring

machine used to drill through the mountain.

After donning safety glasses and hard hats the group entered the exploratory tunnel and walked approximately 500 yards to the location of the first test hole. There they received a briefing about the scientific testing underway at the site.

Finally they traveled to the crest of Yucca Mountain to be briefed on the geology where the distant cinder cones of volcanoes and earthquake faults in the surrounding area were pointed out.

On May 13th, the students will make a presentation to the Churchill County School Board.



After donning hard hats and safety goggles the group enters the test site.



Students and chaperones in front of the tunnel boring machine



The group walked about 500 yards into the repository tunnel and stop at the first bore hole test.



DOE tour guide points to earthquake fault near Yucca Mountain



The Electric Power Research Institute is not advocating a specific dose beyond the 15-millirem per year limit now, a little more than a chest X-ray, but the report says a 100-millirem per year dose would be "considered protective under all potential exposure situations.

Report urges feds to keep 10,000-year radiation standard

WASHINGTON -- Federal officials should keep the original 10,000-year radiation standard in place for the Yucca Mountain nuclear dump and should consider allowing a higher dose limit for the time frame beyond the 10,000 years, according to a recently released report.

Factors such as climate change and human behavior become harder to predict over longer time frames, according to the report, so analysis for the new standard should change to reflect those uncertainties instead of just extending the compliance period, according to the Electric Power Research Institute.

Nevada objects to the institute's suggestions, and Bob Loux, head of the state's Agency for Nuclear Projects, will be sending the state's comments to the group outlining the state's concerns.

The Environmental Protection Agency is currently working on rewriting the radiation standard for the proposed nuclear waste storage site at Yucca, 90 miles northwest of Las Vegas.

Last year, a federal appeals court threw out the 10,000-year standard set by the agency in 2001 because it was not consistent with a recommendation by the National Academy of Sciences, as required by law. The court ruling also threw out the Nuclear Regulatory Commission's licensing requirement that followed the radiation standard.

The Electric Power Research Institute, an energy and environmental research group that promotes the benefits of nuclear power, does not take issue with the court's ruling, but in its 132-page report released on May 11, 2005, it outlines what it believes are

the EPA's options for setting a standard for "very long time frames."

John Kessler, the Electric Power Research Institute's manager of its High Level Waste and Spent Fuel Management program said the report assumes Congress will not take action to change the court ruling, so the agency will have to follow the National Academy of Sciences' recommendation to set a standard up to "peak dose" or the time the most radiation would be released from the mountain or 1 million years, whichever ever comes first.

It is unclear exactly when the peak dose may occur, but there is general agreement that it would be hundreds of thousands of years in the future, Kessler said. The Electric Power Research Institute advocates that the federal

(Continued on page 5)

Energy Dept. Not Fazed by Yucca E-Mails

Energy Department officials concluded last month that e-mails by Yucca Mountain workers talking about making up data "are not likely to discredit or bring into question" key scientific conclusions about the proposed nuclear waste dump site, according to internal department documents.

The memos, released in March by a congressional committee, also indicate department officials learned about the problem in early December — more than

three months before making it public in mid-March.

And while saying that "the potential for significant technical impacts is believed to be low," one memo dated March 15, the day before the problem was made public, acknowledges that "the credibility and defensibility of the (U.S. Geological Survey) technical work supporting the project is brought into question."

The names of authors and recipients and some proper nouns and sections of text

were blacked out by the subcommittee staff to avoid compromising ongoing investigations by the FBI and the inspectors general at the departments of Interior and Energy.

At issue are dozens of e-mails written between 1998 and 2000, mainly by two USGS field workers studying how water moves through the proposed waste dump site 90 miles northwest of Las Vegas, Nev. The USGS validated Energy Department

(Continued on page 3)

Yucca E-Mails (Continued)

(Continued from page 2)

conclusions that water seepage was relatively slow, so radiation would be less likely to escape.

The e-mails, portions of which were released last Friday, show the workers discussing concocting facts and keeping two sets of figures, one for themselves and one to show quality assurance officers.

"If they need more proof, I will be happy to make up more stuff," one message said.

The House Government Reform Subcommittee on the Federal Work Force and Agency Organization, chaired by Rep. Jon Porter, R-Nev., is holding a hearing on the issue. May 11th, the subcommittee released some Department of Energy memos — written around the time the e-mails surfaced — about what they meant and "talking points" about how to respond.

The newly released memos show officials deeply concerned about the effect of the e-mails on the project — but also insistent about sticking to the message that no real harm to the underlying science was done.

"Depending on the current status of the work to which he contributed, these e-mails may create a substantial vulnerability for the program," says a second memo, apparently referring to the principle author of the e-mails. The page that includes that assessment is almost entirely blacked out.

A third memo has a section entitled "key points for your discussion with the secretary." Among those points: "We do not believe that the questionable data has any meaningful effect on the results supporting the site recommendation."

An Energy Department spokeswoman declined comment be-

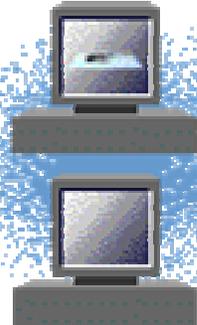
cause of the continuing investigations.

The memos show that the individuals named in the e-mails created 150 or more reports and data sets. They were producing data used to estimate how much precipitation that falls on Yucca reaches the depths of the proposed underground waste repository. But the memos say that because large uncertainty factors are assumed in an overall program assessment, the potentially manipulated records probably didn't change outcomes.

Yucca Mountain, approved by Congress in 2002, is planned as the nation's repository for 77,000 tons of radioactive defense waste and used reactor fuel from commercial power plants. The material is supposed to be buried for at least 10,000 years beneath the Nevada desert.

Source: Associated Press

"if they need more proof, I will be happy to make up more stuff"



Regardless of what happens with Yucca, PFS wants Utah storage

SALT LAKE CITY -- Regardless of what happens with plans to store nuclear waste at Nevada's Yucca Mountain, Private Fuel Storage plans to press ahead with its proposal to temporarily store such waste in western Utah.

"We know there will be (a permanent repository) someplace. It's just a question of where and when," said John Parkyn, chief executive officer of the coalition of utility companies that has a deal with the Goshutes to store depleted nuclear fuel rods on the Skull Valley Band's reservation 50 miles southwest of Salt Lake City.

"PFS is just temporary. We aren't applying for a permanent storage license

and we don't want one," Parkyn said.

PFS is seeking a license for temporary storage of 44,000 tons of waste on the Skull Valley reservation and their proposal is coming up for final action by the Nuclear Regulatory Commission.

"How can a facility be temporary when the place you're going to send it -- Yucca Mountain -- isn't built?" said Dianne Nielson, director of the Utah Department of Environmental Quality. "If Yucca Mountain isn't going to be built, then the waste needs to stay where it is, at the reactor sites in the control of the companies that generate it where it's quite safe until a permanent solution can be found."

The state argued that point before the Atomic Safety and Licensing Board, but the board rejected it. It likely will be part of the state's case, either before the Nuclear Regulatory Commission, or before a federal appeals court, Nielson said.

Nevada's governor, attorney general and congressional delegation demanded a halt to the Yucca Mountain project pending federal investigation.

"The evidence is becoming overwhelming that the Yucca Mountain program is broken beyond repair," Nevada Gov. Kenny Guinn said.

However, Theodore Garrish, deputy

(Continued on page 4)



How can a facility be temporary when the place you're going to send it – Yucca Mountain – isn't built?" said Dianne Nielson, director of the Utah Department of Environmental Quality.

PFS wants Utah storage (continued)

(Continued from page 3)

director of the Energy Department, said his staff plans to double-check the data and, if the department believes Yucca can be done safely, it will submit a license application to the NRC by the end of the year.

"I can assure you we will not go forward unless we have the feeling ourselves first that this repository will be safe," Garrish said.

Utah Republican Sens. Orrin Hatch and Bob Bennett supported Yucca Mountain in the past. In 2002, they agreed to vote for the Yucca Mountain

project in exchange for a pledge from then Energy Secretary Spencer Abraham and White House Chief of Staff Andrew Card that federal funds would not be used to help ship nuclear waste to the Goshute facility, should it be approved.

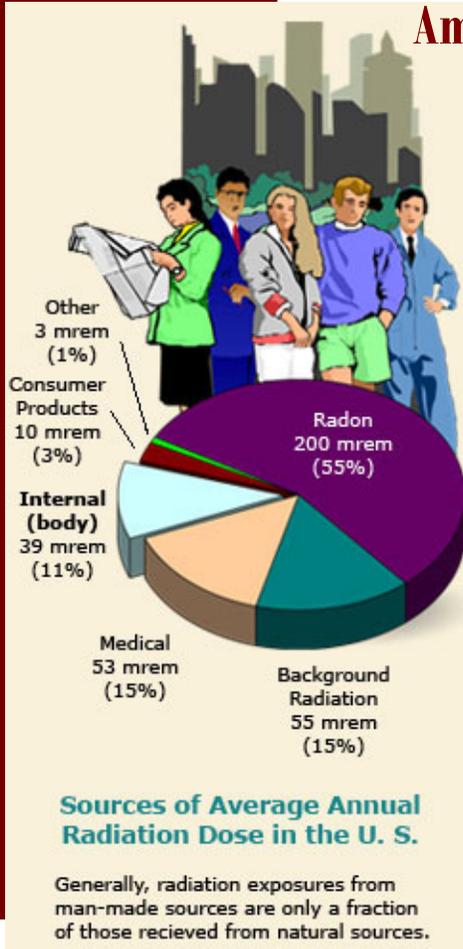
However, Hatch said recently that while he will not stop supporting the government's plan to store the waste in Nevada, he would be elated if the administration decided to keep nuclear waste at the reactors that produced it. And Bennett said earlier that he might favor

leaving the waste at the reactors.

If plans for Yucca continue to crumble, Parkyn expects the Energy Department to look again at sites it studied in the mid-1980s.

The Energy Department initially studied nine sites, including Davis and Laverder Canyons in southeastern Utah. President Reagan narrowed the list to Hanford, Wash., Deaf Smith County, Texas and Yucca Mountain. Source: Salt Lake City Daily Herald

Americans' average radiation exposure



We live with radiation every day. We receive radiation exposures from cosmic rays, from outer space, from radon gas, and from other naturally radioactive elements in the earth. This is called natural background radiation. It includes the radiation we get from plants, animals, and from our own bodies.

We also are exposed to man-made sources of radiation, including medical and dental treatments, television sets and emissions from coal-fired power plants.

Generally, radiation exposures from man-made sources are only a fraction of those received from natural sources. One exception is high exposures used by doctors to treat cancer patients.

Each year in the United States, the average dose to people from natural and man-made radiation sources is about 360 millirem. A millirem is an extremely tiny amount of energy absorbed by tissues in the body.

One of many factors contributing to radiation exposure is where you live. The level of radiation exposure in Nevada varies, being lower in the valley areas and higher in the elevated areas. The atmosphere is thinner at

higher altitudes and allows more cosmic radiation exposure. The current average annual radiation dose to persons living in the Amargosa Valley is around 400 millirem, some 40 millirem more than the national average.

There are primarily two different radiation exposures to the public that might be possible from having a repository for spent nuclear fuel and high-level radioactive waste. The first is from transporting the materials and the second is from the repository for the materials.

Estimates for radiation dose from transportation, based on the exposure of a person standing 100 feet

(Continued on page 6)

10,000-year radiation standard (continued)

(Continued from page 2)

government keep the 10,000-year standard as it stands now and consider the uncertainties that exist when trying to measure things out beyond that time frame.

The institute recommended only using a "interglacial" and "glacial" climate change models to avoid speculating on climate change and human behaviors.

It also recommends a "two-tiered dose limit:" one level for the first 10,000 years and a higher one for after that time consistent with "the increased uncertainty." The Electric Power Research Institute is not advocating a specific dose beyond the 15-millirem per year limit now, a little more than a chest X-ray, but the report says a 100-millirem per year dose would be "considered protective under all potential exposure situations."

"A good site should not be penalized for doing a good job," Kessler said.

The report says radiation doses occurring in the far distant future show the repository's geological and man-made design elements are working. Kessler said that measuring or predicting the peak dose is harder though, so the EPA needs to consider that while writing the standard.

Nevada's contingent opposing Yucca also questions whether consultants who worked on the report were predisposed toward their eventual conclusion because of a possible conflict of interest.

Kessler worked with contractors from Monitor Scientific, a technical consulting firm based in Denver on the report. According to the company's Website, the firm did analyses and design review for

the Electric Power Research Institute report, and the company's researchers have also supported the Environmental Protection Agency in "developing the technical basis for the radiation protection regulation for Yucca Mountain." *Source: Las Vegas Sun, Washington Bureau*



Homeland clarifies position on study of storage of nuclear fuel

WASHINGTON -The Department of Homeland Security says it will look at security concerns involving storage of nuclear fuel, but has not committed to a formal study. The department clarified its position after Gov. Jon Huntsman Jr. said following a April 12, 2005 meeting with Homeland Security Secretary Michael Chertoff that the department committed to a study of the issue. The state believes that a plan by Private Fuel Storage to store 44,000 tons of spent nuclear fuel on the Skull Valley Goshute In-

dian Reservation poses a terrorist target and raises homeland security concerns that have not been adequately addressed. "The secretary agreed to look into the issue to determine if the department would need to do a study," said Homeland Security spokesman Brian Roehrkasse.

Roehrkasse said it's unknown at this point what the department's "look into" the nuclear storage issue might entail.

Huntsman spokeswoman Tammy Kikuchi said that, "It's

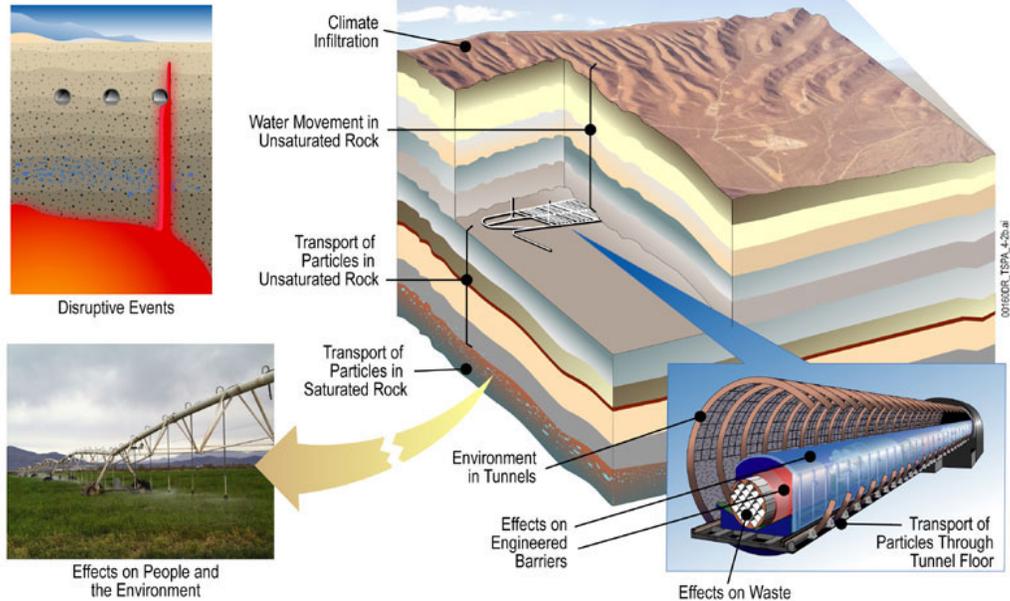
study more as a verb than as a noun." Following his meeting with Chertoff, Huntsman said that he had tried to explain the state's concerns with the PFS facility. "I was pleased with his response," Huntsman said in an interview. "He did commit to doing a homeland security study, which has not been done." - Robert Gehrke.

Source: Salt Lake Tribune

Americans' average radiation exposure (continued)

from a vehicle that is carrying waste and moving 15 miles per hour, is about 0.0004 millirem. A person would receive 5,000 to 12,500 times more radiation dose on a round-trip flight from Los Angeles to New York on a commercial airline (2.5 millirem).

DOE is estimating an average of 130 trains and 45 truck shipments per year for 24 years. However, if all shipments were sent via truck, it would result in about 50,000 shipments over the 24-year period. If a person were to stand 100 feet from a transportation route 24 hours a day for 24 years, and were exposed to all 50,000 truck shipments, that person would receive a total whole-body radiation dose of about 20 millirem. During the same 24-year timeframe, that same person would receive over 7,000 millirem from natural background radiation.



Radiation exposures from a repository are estimated by the Department of Energy as follows:

During the first 10,000 years following the closing of the proposed repository, persons living in Amargosa Valley would receive little or no increase in radiation exposure from the repository. (This community is referenced because water from Yucca Mountain flows toward the Amargosa Valley. Water is expected to be the vehicle that would move radioactive particles from a repository to the water table and from there to contact with people and the environment.)

The Department estimates the maximum exposure to occur some 300,000 years after the repository is closed. At that time, it is possible that some people living in the Amargosa Valley could receive an additional 260 millirem per year. This would bring their total radiation dose to around 660 millirem per year. To put this dose in perspective, 660 millirem is somewhat higher than the 360 millirem national average on a yearly basis but well below levels received by people living in other parts of the United States. Source: Web site at www.ocrwm.doe.gov.

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, www.churchillcountynwop.com. 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, 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