

Nuclear Waste Update

VOLUME XVI ISSUE 1
SUMMER 2011

Yucca Mountain Project Update

Over a year after the Obama administration moved to terminate the Yucca Mountain project, its future still remains in legal and procedural limbo.

In February of 2009, the White House eliminated funding for the Yucca Mountain project from the budget and directed the Department of Energy (DOE) to withdraw its application to the Nuclear Regulatory Commission for a license to build the repository.

The Yucca Mountain site is now effectively closed. In May 2010, DOE ordered the Yucca Mountain project's main contractors to stop all work, with the exception of preserving records. Then, on October 1, 2010, the Office of Civilian Radioactive Waste Management—the organization within DOE responsible for the Yucca Mountain program—was formally disbanded, with responsibility for waste disposal activities transferred to DOE's Office of Nuclear Energy.

In 2008, about 2,700 employees worked at Yucca Mountain. Today, it's zero. Tours of Yucca Mountain are no longer offered. The tunnel entrance is fenced; the power is off.

Yet, the project still faces an uncertain legal future. The recent nuclear crisis in Japan has also revived national interest in Yucca Mountain and debate on how to dispose of nuclear waste (see article below). *(Continued on next page)*



Yucca Mountain, Nevada

Nuclear Crisis in Japan renews U.S. debate over nuclear safety and waste disposal



TEPCO

TOKYO ELECTRIC POWER COMPANY

On March 11, 2011, Japan was hit with a massive 9.0 earthquake and tsunami that caused a partial meltdown in the country's Fukushima Daiichi nuclear power plant.

Exactly a month later, still unable to stem leaking radiation from the damaged plant, Japanese authorities assessed the accident as a number 7 on the International Nuclear Event Scale—on par with the 1986 Chernobyl explosion.

That doesn't mean that the two disasters are equal, however. Japan estimates that the total amount of radioactive materials released as of April 11 was equal to about 10 percent of that released in the Chernobyl accident. But long-term radiation exposure remains a serious concern.

According to the *New York Times*, Hidehiko Nishiyama, deputy director general of Japan's nuclear regulator, stressed that unlike at Chernobyl, where the nuclear reactor itself exploded and fire fanned the release of radioactive material, the containments at the four troubled reactors at Fukushima remained intact over all.

However, an official from the plant's operator, Tokyo Electric and Power, said at a separate news conference that "The radiation leak has not stopped completely and our concern is that it could eventually exceed Chernobyl."

As a precaution, Japanese authorities issued evacuation orders to anyone living within 12 miles of the plant, and advised anyone within an 18 mile radius to stay indoors. U.S. authorities told Americans in the area to stay at least 50 miles away.

Officials continue to work toward fulfilling the three basic safety functions of the International Atomic Energy Agency safety standards: prevention of criticality, removal of decay heat and mitigation of radioactive releases.

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Licensing Update

In February 2010, DOE filed a motion with the Nuclear Regulatory Commission (NRC) to withdraw the application it had filed for a license to build and run the Yucca Mountain repository. But on June 29, 2010, the Construction Authorization Board—an NRC panel—denied DOE's motion. The State of Nevada and several other parties immediately appealed the decision to the full Nuclear Regulatory Commission. As of the writing of this article, the NRC still has not ruled on the appeal. The hearing process continues slowly in the absence of a ruling by the full Commission.

Lawsuits

The DOE's motion to withdraw its Yucca license application has prompted several lawsuits.

- First, in April 2010, the states of Washington and South Carolina (where DOE defense waste is currently being stored) and several other entities filed suit in the DC Circuit Court of Appeals to stop DOE from terminating the program.
- A separate lawsuit was filed against the NRC on February 16, 2011, by the attorneys general of New York, Vermont, and Connecticut and environmental groups. Now that nuclear waste from plants in these states may not be eventually moved to Yucca, these states contend that the NRC is not properly analyzing potential health, safety and environmental threats of the waste that remains on site. While the states focus on temporary storage, the environmental groups are challenging assumptions made about nuclear waste disposal.
- Finally, the U.S. nuclear industry filed a lawsuit on March 8, 2011, suing the Energy Department to suspend a fee imposed by the federal government for managing the radioactive spent fuel produced by America's nuclear power plants. Congress created the fee in 1982 to help pay for a central waste storage site, but the nuclear industry is suing since the Yucca Mountain site remains in limbo.

Budgets

The budget deal that Congress reached late on April 8, 2011, narrowly avoiding a government shutdown, did not include provisions regarding Yucca Mountain.

House Republicans had included a rider in the spending bill that prohibited the Nuclear Regulatory Commission from moving forward on closing down its consideration of Yucca license. But Nevada Senator Harry Reid had the rider removed before the bill's passage.

For its part, the NRC will seek no money in fiscal

2012 from the fund dedicated to the proposed nuclear waste repository, according to the agency's budget plan. FY2012 starts October 1.

Congressional Inquiry

In early April, Republican leaders began a formal inquiry into the Obama administration's decision to halt development of the Yucca nuclear waste repository.

The investigation is led by Rep. Fred Upton, chairman of the House Energy and Commerce Committee, who on March 31 requested documents and written answers from Energy Secretary Steven Chu and NRC chairman Gregory Jaczko detailing their agencies' decision-making process in moving to block construction of the controversial project.

Members of the House Committee also visited Yucca Mountain during the April Congressional recess.

America's Nuclear Future

The Obama Administration continues to support nuclear power in the U.S. despite the continuing lack of resolution for long term disposal of nuclear waste.

Twenty percent of electricity in the United States is generated by nuclear power - twice as much as wind, solar and hydro power combined. The Obama administration says that the draw of nuclear power is tied to the fact that nuclear power is the largest energy source that does not contribute to greenhouse gases.

However, opponents of nuclear power challenge the sector's clean energy claims, especially in light of nuclear waste storage challenges highlighted by the Fukushima nuclear power plant in Japan (see article on page 1).

(Sources: 2010 Report and Recommendations of the Nevada Commission on Nuclear Projects, [McClatchy Wire Service](#), [Las Vegas Review-Journal](#) 5/13/10 and 4/9/11 and 2/21/11, [New York Times](#) 8/4/10 and 4/5/11, [Las Vegas Sun](#) 4/12/11, [Reuters](#) 3/10/11, [Associated Press](#) 3/23, [SolveClimateNews.com](#) 3/3/11)



For the most up-to-date information on the fate of the Yucca Mountain project, go to Eureka County's nuclear waste website:

www.yuccamountain.org/new.htm

Eureka County Launches Lessons Learned Project

Eureka County's nuclear waste program is looking back to reflect on what has occurred in the decades-long federal nuclear waste repository program. The County's effort is two-fold. With the assistance of its technical team, the County prepared a report which was submitted to the Blue Ribbon Commission on America's Nuclear Future in March. (A future issue of the *Update* will summarize the County's report, available at www.yuccamountain.org.)

The County is also undertaking a Lessons Learned video project, to capture on film and transcript the recollections and insights of key participants and observers. Nuggets of the interviews will be posted to the yuccamountain.org website. The information gathered will also be made available to researchers and archives.

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U.S. Reaction to Fukushima

Back at home, the nuclear disaster in Japan has revived concerns about U.S. power plant safety.

The NRC directed its inspectors to double-check all emergency equipment and precautions. But the NRC has also said Japan's nuclear crisis does not warrant any immediate changes at U.S. nuclear plants.

Twenty-three of the nuclear reactors in the United States use the same design as those found at the plant that failed in Japan, according to Dr. Ira Helfand of Physicians for Social Responsibility. Every plant in the U.S. shares key design traits with the Fukushima plant.

According to the Associated Press, 75% of current nuclear power plant waste in the U.S. sits in cooling pools like those at the Fukushima, outside thick concrete-and-steel barriers meant to guard against a radioactive release from a nuclear reactor.

When it comes to earthquakes, U.S. nuclear plants are reinforced based on the region where they are built. If they are in an area more likely to experience significant seismic events, they will have stronger reinforcements. "We design so there will be no risk of significant release to surrounding populations," said Energy Secretary Steven Chu, according to CBS News.

The problem, critics say, is that there is always a chance that an extraordinary earthquake - one that significantly exceeds expectations - will hit, just as happened in Japan.

The NRC has voted to conduct a 90-day study of the significance of the Japanese events for American reactors. But, as the situation continues to evolve in Japan, no one yet has a full picture of what happened at Fukushima.

What All This Means for Yucca Mountain

The nuclear crisis in Japan is reviving a battle over what should be done with the spent nuclear fuel that has been piling up around the U.S. for decades.

Federal regulators say current methods of storing the waste at power plants are safe and can continue to be so for decades. Yet in light of Fukushima, there have been renewed calls to remove waste from U.S. nuclear plants, many of which are near heavily populated areas.

The nuclear-power industry, through its main trade group, the Nuclear Energy Institute, has said a permanent storage site such as Yucca Mountain is the safest long-term way to manage waste, and that the government's delay "has forced nuclear power plants to store used fuel on site for longer than originally intended," according to the Wall Street Journal.

Robert Alvarez of the Institute for Policy Studies concludes, "...the largest concentrations of radioactivity on the planet will remain in storage at U.S. reactor sites for the indefinite future. In protecting America from nuclear catastrophe, safely securing the spent fuel by elimination highly radioactive, crowded pools should be a public safety priority of the highest degree." The price tag, Alvarez says, is "as much as \$7 billion."

A combination of spent fuel pools and dry cask storage may prove to be the safest solution to reducing density in the pools and maintaining safety at U.S. nuclear power plants.

(Sources: [CBS News 3/15/11](#), [Las Vegas Review-Journal 4/14/11](#), [Wall Street Journal 3/25/11](#), [New York Times 3/31/11](#), [3/22/11](#), [4/12/11](#), [Institute for Policy Studies 5/26/11](#))

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Nuclear Waste Update

Eureka County Nuclear Waste Repository Program

The Eureka County Nuclear Waste Update is published by the Eureka County Yucca Mountain Information Office, P.O. Box 990, Eureka, NV 89316, (775) 237-5707. The purpose of the *Update* is to provide information to the public about issues related to the proposed nuclear waste repository at Yucca Mountain.

The newsletter is funded by a direct payment to Eureka County from the U.S. Department of Energy.

Articles in this newsletter may not necessarily reflect the positions or opinions of the Eureka County Board of Commissioners.

For more information on the Yucca Mountain project, contact the County's Yucca Mountain Information Office: (775) 237-5707.

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