



NUCLEAR unWASTEd NEWS

A QUARTERLY SUMMARY OF GENERATION, TRANSPORTATION, STORAGE AND DISPOSAL ISSUES

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Headline

House Bill to Change Funding for Yucca Mountain and Assure Waste Confidence Introduced

8/14

A bi-partisan bill was introduced in the U.S. House of Representatives on August 3 to “enhance the management and disposal of spent nuclear fuel and high-level radioactive waste and to ensure the expansion of clean nuclear power.”

Representatives Fred Upton (R-MI) and Ed Towns (D-NY) sponsored the bill, HR 3358, which specifically targets two hindrances to progress in the Yucca Mountain project and the expansion of nuclear power. The bill addresses use of the Nuclear Waste Fund (a utility-ratepayer fund of contributions collected over the past two decades for disposal of nuclear waste) and the assurance of waste confidence for Nuclear Regulatory Commission (NRC) decisions when considering the licensing of nuclear power plants. Both pieces have been introduced and debated in Congress for years and have gained particular emphasis in the last two years with similar policy proposals from the Bush administration that have gone nowhere.

The Nuclear Waste Fund provision would reclassify nuclear waste fees paid by utilities into the fund from “mandatory” to “discretionary” in the federal budget, in order to adequately reflect their offset of congressionally-approved discretionary appropriations. This provision also adds infrastructure activities as an approved expenditure of Nuclear Waste Fund dollars. The Nuclear Waste Fund balance currently approaches \$20 billion, with an additional \$750 million paid in annually.

The waste confidence provision would require the NRC to deem that sufficient capacity will be available for the disposal of spent nuclear fuel when considering whether to permit the construction or operation of a nuclear reactor.

Upon introduction, the bill was referred to the House Committee on Energy and Commerce where it will remain at least until Congress comes back into session from its August recess on Tuesday, September 4.

[HR 3358](#) (must type in bill number for search)

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State/Federal Battles Over Water for Yucca Mountain Project Continue

9/24

After a long series of exchanges in a landmark legal battle over the proposed Yucca Mountain nuclear waste facility in Nevada, the Department of Energy (DOE) will be allowed to continue its use of Nevada water for borehole drilling and scientific data-collection through "Phase 1" operations - to end this month. Allowances for water use thereafter are uncertain, and Federal Judge Roger Hunt who presided over the case has strongly urged both parties to reach consensus.

Until the spring of 2007, DOE had been using local groundwater to cool and lubricate its drilling operations intended for seismic monitoring and geologic testing required by the Nuclear Regulatory Commission's (NRC) construction application process. On June 1st, Nevada State Engineer Tracy Taylor ordered DOE to cease and desist using Nevada's water toward those ends, as the state had originally understood the drilling operation to be quite limited. Initial

DOE estimates figured eight-ten holes, whereas DOE incrementally raised the figure to 80 holes for the two-phased project.

In a ruling on August 31st, Judge Hunt upheld Taylor's order to cease and desist the use of Nevada water for drilling or data collection. DOE replied that it would cease using water for "Phase 2" of its project, but continue its use during the current phase, which they claimed was not referred to in Taylor's order of June 1st. Hunt agreed to this claim on September 21st, and DOE continued operations through the month.

The Energy Department was to drill its last hole for "Phase 1" at the end of September, for a total of 35 holes during the first phase. DOE will determine whether data collected to that point will be sufficient to support its surface facility plans in the license application to the NRC expected next June.

[*Las Vegas Review Journal* article](#)

Also referenced: *Platts NuclearFuel*, Volume 32/ Number 19/September 10, 2007 and Volume 32/ Number 20/September 24, 2007.

Nuclear Energy

DOE Awards \$3.8 Million to 38 Universities to Boost Nuclear Curricula

8/23

The Department of Energy (DOE) released a list of 38 universities from around the country that will receive \$100,000 each to support nuclear-related programs. The payout is related to the Bush administration's Global Nuclear Energy Partnership (GNEP) to encourage the expanded use of nuclear energy while closing the fuel cycle to reduce waste and proliferation concerns with advanced recycling technologies.

The GNEP University Readiness awards may be used to upgrade laboratories and research reactors and augment faculty strength in nuclear-related fields, to name a few. Although these are one-time payouts, the

awards will enable these universities to compete for future R&D projects with the Energy Department. The readiness awards are part of \$15.2 million DOE has spent on university nuclear energy programs this year.

There have been great concerns in the nuclear industry, at the Nuclear Regulatory Commission, and within the Energy Department that nuclear-related university studies have fallen off in the last few decades as reactors have aged, some have been decommissioned, and no significant new construction/investment has been seen in the U.S. nuclear industry since the 1970s. As the Bush administration pushes for a nuclear renaissance to enhance energy security and provide a clean source of

reliable energy though, the demand will be great for a qualified nuclear labor force to support such a resurgence.

As Dennis Spurgeon, Assistant Secretary for Nuclear Energy explained, "Supporting our educational institutions is essential to ensure that the United States continues to lead the world in development of safe and secure nuclear technology."

[DOE Press Release](#) (list of chosen universities)

First Nuclear Reactor License Application in almost 30 Years Submitted

9/28

NRG Energy filed a combined construction and operating license with the Nuclear Regulatory Commission (NRC) this week to build two new nuclear reactors in Texas, ending almost three decades without such new proposals. The New Jersey company seeks to build two General Electric Advanced Boiling Water Reactors 90 miles south of Houston. The facility would cost between \$5.4 and \$6.7 billion and provide 1350 to 1600 megawatts of electricity. Application fees to the NRC are estimated to cost \$24 million.

Progressive growth in electricity demand, rising prices of natural gas, and growing public concern over climate change (coupled with likely future taxes on carbon-emitting energy sources) have inspired interest in a nuclear energy renaissance. The NRC has increased hiring in anticipation of an expected 28 filings for nuclear reactor permits within the next few years; the costs for the prospective sites estimated to exceed \$90 billion.

The latest push for increased nuclear power is not without its challenges. In 2003, a Congressional Budget Office report estimated that at least 50% of loans for new nuclear facilities would default, and in 2005 industry leaders warned Congress that it would

likely require billions of dollars in loan guarantees to get rolling. Congress responded with the Energy Policy Act of 2005, granting \$12 billion in tax breaks and other benefits, and the fiscal year 2008 energy bill could include further loan guarantees. The Department of Energy announced this week that it would contribute \$2 billion in federal risk insurance for losses resulting from regulatory or legal delays to the first six nuclear facilities underway.

Proponents of the latest surge for nuclear power claim that it is an optimal source of emissions-free energy and that need for government assistance will decrease when a carbon tax is passed, making nuclear power cost-competitive with coal generators. Proponents also claim the new advanced boiling water reactors (already in use in Japan and Taiwan) demonstrate significant advances in safety, construction time, capital and operating costs, and performance compared with the reactors of the 1970's.

Opponents cite unpredictable cost over-runs, long lead times, and an inability to significantly lower overall greenhouse gases as reasons to resist the re-invigoration of the nuclear industry. According to some energy expert calculations, nuclear power facilities can only make a significant impact on global warming if 21 new plants are built annually around the world (about five in the U.S.) over the next 50 years. The Energy Information Administration predicts that, given current policy, a total of 53 will be built by 2056, while many existing nuclear plants will have been decommissioned by then.

[CS Monitor article](#)

[NYTimes article](#)

[ABWR info](#)

[Nuclear renaissance challenges piece](#)

[Boston Globe pro-nuclear opinion piece](#)

Barnwell, SC Tests for Tritium Leaks

9/14

The State newspaper reported in August that 30 monitoring wells near the Barnwell low-level radioactive waste disposal facility in South Carolina had shown contamination of tritium (a cancer causing isotope of hydrogen). The state-owned facility is run by Chem-Nuclear (a subsidiary of EnergySolutions in Utah) and monitored by the South Carolina Department of Health and Environmental Control.

State legislators considered legislation this spring (H3545) to extend the deadline related to the volume and regional acceptance criteria for disposing of low-level radioactive waste at the Barnwell facility. Lawmakers ultimately voted down the bill, but said they were not told of contamination concerns at committee hearings before voting on future expansion of the landfill. The maps detailing tritium plumes had been labeled “proprietary” and therefore exempt from the Freedom of Information Act.

The Department of Health and Environmental Control (DHEC) had more than three dozen tests of private drinking wells conducted by an independent laboratory after the news report was released. The tests found only trace amounts of tritium (a naturally-occurring element), the levels of which were well below the Environmental Protection Agency’s standard of tritium per liter of water. State officials therefore concluded there is no public health risk, but the DHEC will continue testing wells every three months to assuage further concerns of residents.

Agency officials, board members, state legislators, and environmental groups continue to disagree on the level of controversy the landfill and this purported shielding of information have caused. The South Carolina legislature may take up a Barnwell extension bill again next year.

Background:

Barnwell opened in 1971 and has since disposed of approximately 28 million cubic feet of dry, solid-form low-level radioactive waste (such as lab clothing, construction soil, filters from nuclear reactors or medical facilities) from around the country. At 235 acres, this site is currently 90% at capacity.

Since passage of the federal Low-Level Radioactive Waste Policy Act of 1980 and the Amendments Act of 1985, states have been encouraged to enter into compacts with neighboring or regional states to create a single disposal facility for that compact. In 2000, South Carolina joined the Atlantic Compact with Connecticut and New Jersey, and unless the state legislature passes legislation authorizing otherwise, as of June 2008, Barnwell will only be allowed to accept waste from those three states.

The NRC categorizes low-level radioactive waste (LLW) into Classes A, B, C, and Greater than Class C, in order of escalating radioactive hazard/concentration. Currently, there are three disposal sites accepting commercially-generated LLW. The EnergySolutions facility in Clive, UT accepts an overwhelming majority of the country’s commercial Class A waste, while Class B and C wastes are delivered to sites at Richland, WA and Barnwell, SC. The Richland site, however, only accepts waste from 11 western states. If Barnwell closes its doors in 2008, the majority of states will be without disposal access for higher-activity LLW.

Proponents of the facility remaining open to all states tout its unique status in providing this critical service to the nation, and the revenues it provides to the county and state in the millions of dollars each year. Opponents claim a shallow water table in South Carolina and the potential for contamination if the landfill does not curtail acceptance as scheduled.

Forbes article (archived)

[*Savannah Morning News* article](#)

The State article (archived)

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Articles in this newsletter have been researched by NCSL staff. Resources include *E&E News/Greenwire online*, *Nuclear Waste News*, *Nuclear Fuel*, *Platts Nuclear Fuel*, legislative research office contacts and other sources.

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NCSL Online Resources

NCSL Nuclear Waste Webpage
www.ncsl.org/nuclearwaste

State Legislation Database on Nuclear Waste Issues
<http://www.ncsl.org/programs/environ/nucwaste.cfm>

State Legislation Database on Environmental Justice Issues
<http://www.ncsl.org/programs/environ/envjustice.cfm>