



NUCLEAR unWASTEd NEWS

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

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Headline

State Legislation on Radioactive Waste

3/05

Several states have taken up legislation this year on radioactive waste issues, particularly in the areas of transportation and storage. Three bills are highlighted here because of their national implications and their history of attempted passage.

Missouri - HB252

Representative Edward Robb introduced this bill on January 4, which would require all entities that transport radioactive waste through Missouri be assessed a fee and provide notification of the shipment. Universities would be excluded from the fee, but would need to reimburse the Department of Transportation for costs associated with shipment escorts. Military or national defense shipments would be exempt from the fees and notification requirements.


The general fee structure would include:

- By truck - \$1,800 for each cask of high-level radioactive waste (HLW), transuranic waste (TRU), spent nuclear fuel (SNF), and highway route controlled quantities (HRCQ). Subject to a \$25/mile surcharge for every mile over 200 miles traveled within the state.
- By rail - \$1,300 for the first cask and \$125 for each additional cask of HLW, TRU, SNF for each rail transport.
- \$125 for each truck or train transporting low-level radioactive waste (LLW). The Department of Natural Resources could accept an annual shipment fee as negotiated with shipper or accept payment per transport or shipment.

Any shipper who failed to pay a fee or provide notice of a shipment to the Department of Natural Resources would be liable for a civil penalty in an amount not to exceed 10 times the amount of the original assessed fee.

The fees would be deposited into an Environmental Radiation Monitoring Fund to be used for such purposes as: inspections, escorts, security, emergency response, education, training, purchase and maintenance of equipment and supplies, oversight of environmental remediation from a transportation incident, and administrative costs.

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The last action on HB252 occurred February 14, when it was referred to the Special Committee on Energy and Environment. (As of 4/3, passed out of Special Committee on Energy and Environment, and Rules.)

Similar bills requiring notification and fees for the transportation of radioactive waste have been introduced in Missouri in previous sessions. Last year a related bill, SB976, passed the Senate and both House committees of jurisdiction, but the legislative session ended before a full vote on the House floor was completed.

(For a listing of all states with related legislation on transportation fees/permits, please see 4/21/06 summary in Vol. 1, No. 2.)

[South Carolina - H3545](#)

Representative William Witherspoon, chair of the Committee on Agriculture, Natural Resources, and Environmental Affairs, introduced this bill on February 15. It seeks a deadline extension related to the volume and regional acceptance criteria for disposing of low-level radioactive waste at the state's facility in Barnwell.

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 as of June 2008, Barnwell will only be allowed to accept waste from those three states.

H3545 would allow Barnwell to accept 40,000 cubic feet of low-level radioactive waste past the original end date of 2008 through to 2023 from any state that does not have its own compacted disposal facility - about 38 states outside of the Atlantic Compact. Barnwell is the only facility in the country which accepts low-level radioactive waste in all classes (A, B, and C - based on concentration of radioactivity in the waste) from any state requiring the service.

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.

The last action on this bill occurred the day it was introduced, when it was referred to Rep. Witherspoon's Committee on Agriculture, Natural Resources, and Environmental Affairs. (Background article, 1/09.)

[Utah - SB155](#)

Senator Darin Peterson, chair of the Committee on Natural Resources, Agriculture, and Environment, introduced this bill on January 22. It would allow a low-level radioactive waste facility in Utah to expand the volume of waste it may accept without seeking the legislature's or governor's approval.

EnergySolutions, which also runs the Barnwell facility in South Carolina, owns the commercial radioactive waste disposal facility in Clive, Utah that accepts nothing higher than Class A low-level waste (which holds the lowest concentration of radioactive materials). The site is currently limited to one square mile, but the company seeks to increase acceptance of waste by stacking it higher on that allotted one mile (from its current 54 feet to 83 feet). Although SB155 would allow the company to make changes to its site within its current legal operations without legislative or

Headline cont.

gubernatorial approval, the state's Department of Environmental Quality would still need to review and accept any amendments to EnergySolutions's current license.

Senate Majority Leader Curt Bramble was a co-sponsor of the bill, which he believed would merely place into law one of the recommendations the state's hazardous and radioactive materials task force, which he sat on, proposed when originally considering the site in the 1980s.

SB155 passed both houses of the state legislature with veto-proof margins, and was sent to the governor's desk on February 15. Governor Jon Huntsman, Jr. declined to veto the bill by February 27, and for the first time in his administration, allowed a bill to become law without his signature. (Updated article, 3/28)

Last year, Utah's statehouse prepared for another struggle regarding the EnergySolutions facility. When the company proposed expanding the site to two-square miles, Governor Huntsman announced his intention to reject it outright. A commercial waste review process had been enacted in 1990 that required the approval of local and state environmental regulators, the legislature,

and the governor to establish or expand waste facilities in the state. A bill, SB70, was introduced giving the legislature the right to veto the governor's ban on waste issues, a right they have with virtually any other piece of legislation. The bill passed both houses and was subsequently vetoed by the governor. It returned to the Senate, which overrode the veto, but was not reconsidered in the House. By that point EnergySolutions had withdrawn its plans for expansion given the negative political climate, and the legislature adjourned for the session without resolving to the matter.

The succeeding SB155 was seen by some as a consensus bill to appease all parties, but opposition was still apparent. A former county commissioner and member of the state's Radiation Control Board, Patrick Cone, stated his concern that the bill would mean, "no public oversight, no elected accountability, and nothing from the legislature" as to what transpires at the site. But the three commissioners from Tooele County, where the disposal site resides, supported the bill, which had fairly broad bi-partisan backing.

For an extensive list of state legislation on radioactive waste issues, please visit NCSL's [Nuclear Waste Database](#).

LLW Disposal

South Carolina Legislature May Address LLW Extension

1/09

EnergySolutions, operator of the Barnwell Low-Level Radioactive Waste Disposal Facility in South Carolina, may seek a deadline extension from state lawmakers to allow the site to continue accepting waste from around the nation. Barnwell opened in 1971 and has since disposed of approximately 28 million cubic feet of dry, solid-form low-level radioactive waste (defined by radioactivity per mass or volume). 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 were 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 as of June 2008, Barnwell will only be allowed to accept waste from those three states.

Legislators may be asked by supporters of the landfill to reconsider this deadline in favor of business as usual for an extended period. Proponents of the facility remaining open to the nation tout its revenues to the state in the millions

of dollars each year. Opponents are concerned with the shallow water table in South Carolina and the potential for contamination if the landfill does not curtail acceptance as scheduled.

There are only three facilities around the country which accept and dispose of commercial low-level waste: Barnwell in South Carolina, Richland in Washington State, and a private-sector EnergySolutions site in Utah. The Richland facility only accepts waste from its Northwest Interstate Compact and the Rocky Mountain Compact, while EnergySolutions in Utah (similar to Barnwell) is open to any state not in a compact with an available landfill. The Utah site, however, cannot accept any low-level waste that is greater than Class A, which holds the lowest concentration of radioactive materials. Barnwell currently accepts Classes A, B, and C (the highest concentration still permitted disposal at a low-level facility).

[Barnwell Website](#)

Utah Governor Strikes Deal on Nuclear Waste Disposal Site

3/28

EnergySolutions, owner of a commercial facility in Clive, Utah that disposes of the vast majority of the country's low-level radioactive waste (LLW), recently struck a deal with Utah's Governor Jon Huntsman, Jr. regarding expansion of waste acceptance at the site.

Over objections from Huntsman, the state legislature passed a bill this year (SB155) that removes the required gubernatorial and legislative approval process for select changes to EnergySolutions' Section 32 site, including the height of the waste stacking pile. The bill's purpose was to allow the company to increase the waste it may accept at the site by piling it higher than currently permitted (from 54 to 83 feet) on its existing one-square mile plot of land, rather than needing to expand geographically, which when broached in the past came under intense criticism from interest groups.

The governor's hands appeared tied when the bill passed the state house with a veto-proof majority, but Huntsman still had one card to play. The Northwest Low-Level Radioactive Waste Compact has jurisdiction over the importation of LLW into Utah and ten other states in the region, and the governor threatened to request that the Compact limit the allowances of LLW coming into his state. This threat led the CEO of EnergySolutions, Steve Creamer, to pursue a compromise with Huntsman.

The company withdrew a license application that would have allowed the higher piling of waste at the facility, and the governor agreed to refrain from petitioning the regional LLW authority to limit the amount of waste that the site may accept for disposal. EnergySolutions will maintain its licensing rights as they currently exist, and can use a portion of the site that is currently restricted to government waste for commercial and other wastes. The facility remains limited to accepting only Class A LLW, which holds the lowest concentration of radioactive materials.

While EnergySolutions quickly removed its license application to expand, the language used in the agreement letter to regulators did not preclude the company from seeking such an expansion in the future. This led many observers to conclude that EnergySolutions is biding its time until Governor Huntsman leaves office (2012 if re-elected in 2008), after which they will again work toward increasing waste acceptance capacity at the site.

[Agreement Article](#)

[EnergySolutions' Future Plans Article](#)

Also referenced: *Nuclear Waste News*, Vol. 27 No. 6; March 26, 2007; pages 51-52.

NRC Commissioner Questions Yucca Mountain Prospects

1/23

Ed McGaffigan, the longest serving commissioner in the history of the Nuclear Regulatory Commission (NRC), has spoken out against the likelihood of ever completing the Yucca Mountain repository project.

Constant legal and regulatory hurdles have stalled development of the site since Congress passed the Nuclear Waste Policy Amendments Act of 1987, which identified Yucca Mountain as the sole location for a characterization study of its practicality as a permanent repository. The Department of Energy (DOE) completed a viability assessment in 1998, which found Yucca Mountain to be a suitable disposal area. This determination led in 2002 to a recommendation of the site by Energy Secretary Spencer Abraham, designation by President George Bush, and approval by the U.S. Congress. Many factors, including litigation requiring a revised Environmental Protection Agency (EPA) radiation standard, have delayed DOE's license application to the NRC for construction of the repository at Yucca Mountain.

McGaffigan felt free to speak his mind on the troubled project after announcing his plan to retire as soon as his replacement could be found and confirmed. Some questioned why the commissioner, who has served with the NRC since 1996, has never stated this dire prediction before. McGaffigan has expressed frustration with the project, but his most recent comments, including an insinuation to scrap the entire idea of housing a repository at Yucca Mountain, were the strongest to come from any official this close to the project.

"I think Yucca Mountain has been beset by bad law, bad regulatory policy, bad science policy, bad personnel policy, bad budget policy throughout its history," McGaffigan said. "It may be time to stop digging, and it may be time to rethink... Each year that passes, we are not going to get any closer to Yucca under the current circumstances."

In criticizing progress at the Yucca Mountain repository, the commissioner specifically pointed to Congress's inability to provide legal and budgetary support, lack of host state buy-in, and the administration's choices of unqualified appointees to lead the project at DOE. McGaffigan supports running the Yucca Mountain project via a non-partisan board of directors with corporate-style unemotional and professional long-term managers.

DOE spokesman Craig Stevens reacted to the commissioner's comments with a sentiment that McGaffigan's retirement is welcome given the need for a fresh perspective at the NRC. The NRC regulates commercial use of nuclear materials and will determine the safety of operating the repository when DOE submits its Yucca Mountain license application, expected by June 2008.

[E&E News Article](#) (subscription required)

[Las Vegas Review Journal Article](#)

DOE Sends Draft Bill on Yucca Mountain Back to Congress

3/09

On March 6, the Department of Energy (DOE) sent a draft bill to Congress entitled the "Nuclear Fuel Management and Disposal Act." An almost identical bill was submitted to Congress last year to advance the development of the long delayed nuclear waste repository at Yucca Mountain, Nevada, but never made it out of committee in either house.

Provisions of the bill include:

- [Permanent Land Withdrawal](#) - As required by the Nuclear Regulatory Commission (NRC) for licensure, this section would withdraw from public use approximately 147,000 acres in Nye County for security and public health and safety during construction and operation of the repository.

- Repository Capacity - Repeals the statutory limit of 70,000 metric tons of spent nuclear fuel (SNF) and high-level radioactive waste (HLW) at Yucca Mountain in favor of an amount closer to its actual physical capacity. The FEIS analysis considered 120,000 metric tons.
- Licensing - Lessens the number/type of facilities required for inclusion in the construction application, and shortens and simplifies the succeeding application process required for receiving and possessing radioactive waste at Yucca Mountain. Provides the NRC a maximum of 18 months to consider and rule on the license application.
- Infrastructure - Authorizes initiating infrastructure activities (i.e. constructing a rail line, improving utility and communication capabilities, initiating safety upgrades) before the NRC makes a final decision on whether to approve the construction application. This provision also limits the scope of environmental reviews and directs federal, state, local, and tribal officials to grant rights-of-way and other authorizations.
- Funding - Reclassifies nuclear waste fees paid by utilities into the Nuclear Waste 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.
- Environmental Regulations - Exempts DOE-owned materials in NRC-licensed containers which are being transported to or stored at Yucca Mountain from federal, state, and local environmental requirements under the Resource Conservation and Recovery Act (RCRA). This provision also designates the EPA as issuer, administrator, and enforcer of air quality permits in connection with the Nuclear Waste Policy Act of 1982 (NWPA).
- Transportation - Clarifies that the Secretary of Energy may determine the extent to which transportation under the NWPA is regulated by the Atomic Energy Act of 1954. The Energy Secretary may also request that the Secretary of Transportation preempt any state or tribal requirements that affect DOE’s ability to carry out NWPA transportation, irrespective of whether the transportation is subject to the Hazardous Materials Transportation Authorization Act of 1994.
- Water Rights - Declares sufficient water supply at Yucca Mountain to be beneficial to interstate commerce and not detrimental to the public interest (contrary to Nevada State law). Allows the Secretary of Energy to obtain water rights, by purchase or otherwise, to carry out NWPA functions.
- Waste Confidence - Requires the NRC to deem that sufficient capacity will be available for the disposal of SNF when considering whether to permit the construction or operation of a nuclear reactor.

As there were no deletions from the 2006 legislation, several elements which were largely opposed at the state level remain in the 2007 proposal, including the section on transportation which reiterates the federal government’s right to preempt state regulations. The only alteration to the 2007 bill was a technical amendment in the section dealing with RCRA, to clarify that the section only applies to materials being transported to or stored at the Yucca Mountain repository.

Edward Sproat, Director of DOE’s Office of Civilian Radioactive Waste Management (which runs the Yucca Mountain project), acknowledged in a letter to Speaker Nancy Pelosi that he is aware of concerns Congress expressed about various components of the bill last year, but decided to keep it largely intact as a way to renew debate on the nation’s priorities with nuclear waste. He

explained that the bill need not be accepted “all or nothing,” but that three sections in particular are essential to timely completion and successful operation of the repository: land withdrawal, increased capacity at Yucca Mountain, and easier access to the Nuclear Waste Fund.

Specific to increased funding, Sproat stated: “If we don’t have that we are certainly not going to be able to maintain the 2017 date.” Sproat also announced the week before the bill was introduced that if the 70,000 metric ton capacity limit for nuclear waste at Yucca Mountain is not lifted, he will inform Congress next year that a second repository is needed.

With the amount of SNF in the United States increasing by 2,000 metric tons per year, supporters of the Yucca Mountain repository argue that permanent disposal is the safest way to manage reactor waste; a need that will be heightened under the Bush administration’s nuclear renaissance scenario. But the introduction of this year’s Nuclear Fuel Management and Disposal Act quickly drew ire from longtime critics of the project, including Harry Reid, the Senate Majority Leader from Nevada.

“It would be dangerous and irresponsible to ship the most dangerous substance known to man through cities and small towns, and past schools, hospitals, and businesses so it could be buried 90 miles outside of Las Vegas,” said Reid in a statement vowing to block the DOE legislation.

Senator Reid joined with Nevada’s other Senator, John Ensign, to introduce an alternative bill (S.784) that would require DOE to take title to SNF at the reactor sites and maintain storage on-site at locations around the country.

DOE is under increasing pressure to find a disposal solution for the growing amount of SNF currently stored at reactor sites. Due to the chronic delays in the opening of Yucca Mountain, DOE was unable to accept

waste from commercial reactors by a 1998 deadline, violating an arrangement in the Nuclear Waste Policy Act which stated that DOE would accept the waste in exchange for utility ratepayer contributions to the Nuclear Waste Fund. Some have estimated that this liability could cost the government \$7 billion, with the figure increasing every year a repository is postponed and DOE cannot accept the waste.

[Nuclear Fuel Mgmt and Disposal Act](#) (letter to Congress, bill text, summary, provisions, and sectional analysis)

[DOE Press Release](#)

[World Nuclear News Article](#)

[Reid bill, S.784 \(Bill Search\)](#)

Also referenced: *Platts NuclearFuel* newsletter, Volume 32/Number 6/March 12, 2007, page 12.

Oversight Board Praises Progress at Yucca Mountain

3/26

The Nuclear Waste Technical Review Board (NWTRB), a body created by Congress in 1987 to oversee Department of Energy (DOE) activities related to the disposal of high-level radioactive waste, has released a report which commends recent work on the Yucca Mountain project and offers suggestions for future improvements.

The report expresses the board’s view that DOE has made significant progress in developing the repository for acceptance of spent nuclear fuel (SNF) at Yucca Mountain, located approximately 90 northwest of Las Vegas. The report also lauds the potential of the transport, aging and disposal (TAD) canister concept, which will limit the handling of spent fuel assemblies at the repository since this multi-purpose design does not require transfer to a separate container for burial. This will simplify the types of surface facilities required at Yucca Mountain as well. The report does, however, note that in order for the TAD system to be effective, it must first clear litigation between the Department and

Yucca Mountain cont.

utilities, and sufficient numbers of containers must be available for storage at utility sites.

The NWTRB report did comment on a number of significant concerns. First and foremost is the belief that the methods DOE used to develop the total system performance assessment (TSPA) “do not properly represent the natural correlations of some specific parameters.” Taking into account parameter correlations, for example between the percolation of water and resulting seepage for peak-dose analysis, would bolster the technical credibility of the TSPA.

The board also suggested that the DOE safety case could be strengthened with “conceptual clarity” and “strong programmatic commitment” by relating pre-closure activities to post-closure effectiveness. The use of prototypes for testing unique design elements, for example, can reveal otherwise obscure potential future

hazards. Another area of concern involves the uncertainty of waste package corrosion at high temperatures. In 2006, the board held a workshop to study the likely corrosion of the metal used in the waste packages to be buried at Yucca Mountain, as well as the level of radionuclide transport expected from such corrosion, and determined that additional scientific research was needed to support DOE’s technical conclusions.

The report was written by NWTRB Chairman B. John Garrick, and was sent to Speaker of the House Nancy Pelosi, Senate President Pro Tem Robert Byrd, and DOE Secretary Samuel Bodman. Additional reports this year will likely focus on technical issues related to repository performance in an effort to strengthen the foundation on which performance estimates are based.

Source: *Nuclear Waste News*, Vol. 27 No. 6; March 26, 2007; pages 48-50.

Report not currently available online.

GNEP

DOE Announces GNEP Environmental Study

1/08

On Thursday, January 4, the Department of Energy (DOE) posted a Notice of Intent to prepare a Programmatic Environmental Impact Statement (PEIS) for the administration’s Global Nuclear Energy Partnership (GNEP) in the Federal Register. This notice allows the public to review and comment on the programmatic and project-specific proposals outlined by DOE before the environmental study begins.

GNEP is an international nuclear power program initially outlined by DOE in February 2006. According to the department, “as part of President Bush’s Advanced Energy Initiative, GNEP encourages expansion of domestic and international nuclear energy production while minimizing proliferation risks, and [reducing] the volume, thermal output, and radiotoxicity of spent nuclear fuel before disposal in a

geologic repository.” The PEIS intends to examine the environmental impacts of this project and any of its potential alternatives.

DOE anticipates analyzing 13 sites in the PEIS as potential locations for one or more of the three types of facilities to be created under GNEP. According to DOE, the three facilities include:

- **Nuclear fuel recycling center**, which would separate spent nuclear fuel into reusable and waste components and then manufacture new nuclear fast reactor fuel using the reusable components;
- **Advanced recycling reactor**, which would destroy long-lived radioactive elements in the new fuel while generating electricity; and
- **Advanced fuel cycle research facility**, which would perform research and development into spent nuclear fuel recycling processes and other advanced nuclear fuel cycles.

Eleven of the sites will mirror those selected last November as recipients of GNEP siting grants (see 11/30/06 summary in Vol. 1, No. 4) and the other two will be DOE sites that are potential candidates for the advanced fuel cycle research facility.

Because the 2006 congressional session ended without passage of several fiscal year 2007 appropriations (the first time GNEP dollars were budgeted) and the new Democratically-controlled Congress intends to fund those programs with a continuing resolution based on '06 dollars until fiscal year 2008, doubts have arisen about GNEP's prospects in the year ahead. DOE's spokesman, Craig Stevens, attempted to revive optimism for GNEP with the newly announced PEIS, but acknowledged that "the continuing resolution has slowed the progress of GNEP and limited both industry involvement and international participation." Energy Secretary Samuel Bodman is slated to determine whether the administration should go forward with the program in June 2008.

DOE is accepting comments on the PEIS through April 4, 2007 (extended to June 6, 2007). In conjunction, they are hosting 11 scoping meetings around the country over the next two months:

Oak Ridge, TN	February 13
North Augusta, SC	February 15
Joliet, IL	February 22
Hobbs, NM	February 26
Roswell, NM	February 27
Los Alamos, NM	March 1
Paducah, KY	March 6
Piketon, OH	March 8
Pasco, WA	March 13
Idaho Falls, ID	March 15
Washington, DC	March 19

[GNEP NOI PEIS](#)

[DOE Press Release](#)

Also referenced *E&E News PM* online (registration required): Mary O'Driscoll, "Administration set to launch GNEP environmental study." January 4, 2007; E&E Publishing, LLC.

GNEP Strategic Plan Outlined

1/17

DOE released the Global Nuclear Energy Partnership (GNEP) Strategic Plan on January 10, which highlights policy principles and implementation criteria/technology before detailing an action plan for fulfilling the goals of the project.

According to the plan, GNEP seeks to encourage world-wide use of nuclear energy while diminishing weapons-grade byproducts and addressing waste disposal problems. The project would "develop and deploy advanced nuclear recycling and reactor technologies [to]...provide reliable, emission-free energy with less of the waste burden...and without making available separated plutonium."

The Strategic Plan outlines implementation factors of the GNEP program, including:

- Criteria - fuel cycle criteria necessary to accomplish GNEP goals;
- Technology - available technology and that requiring development; and
- Action plan - defining industry and government roles in the short-term and more broadly over the life of the project.

Criteria in determining GNEP's ability to meet its stated goals include whether the technology developed for the entire fuel cycle accomplishes peaceful use of nuclear energy on a global scale without proliferation risks. This involves "cradle to grave" fuel services such as assuring fuel supply to international partners who agree not to enrich uranium themselves, and increasing the limited capacity (volume and heat load) of a repository for disposing of nuclear waste by recycling it into reusable fuel.

Technology requirements detailed in the plan involve creating three facilities through the coordination of federal government, industry, and international part-

ners and their resources. The three facilities include: a nuclear fuel recycling center, an advanced reactor to burn the recycled fuel (for energy and to reduce the burden on repository capacity limits), and a research facility to develop improved fuel cycle technology to enable creation of the first two facilities. Industry's role will involve commercial scale design of the first two facilities in preparation for the technology which the national laboratories will produce in the third facility.

As the plan indicates, "at the core of this effort will be the development of a sound, achievable business plan." Short-term actions include gauging what technology, policy, and business obstacles exist and how best to address those. One key aspect will be laying out a roadmap for moving laboratory-scale technological advancement toward commercial-scale viability by tapping industry's engineering expertise. Another short-term step will be preparation of a programmatic GNEP environmental impact statement to include siting studies of potential host locations for future recycling centers and/or advanced reactors (see 1/08/07 news summary).

In June of 2008, the Secretary of Energy will need all of the information this plan proposes to gather over the next year and a half (technological, environmental, and business feasibility of the project) to determine GNEP's fate - whether the government should continue investing money and resources into the project.

Congress has been critical of GNEP since its introduction in early 2006 for its lack of a definitive path forward, and has therefore shown reluctance to fully fund the project. The House passed funding of \$120 million for GNEP for fiscal year 2007, half of the president's budget request. Because Congress failed to complete its appropriations process, however, several departments, including Energy (which GNEP falls under), will likely be forced to work this year under 2006 funding levels. GNEP was not allocated funds for that period, but can dip into its predecessor's, the Advanced Fuel Cycle Initiative, much smaller kiddy of \$79 million. The Strategic Plan warns that "Prospective partners await congressional action on the GNEP budget and will in part gauge the responsiveness of their actions by it."

[GNEP Strategic Plan](#)
[DOE Press Release ...](#)

FY2008 Nuclear-related Budget Requests

2/06

President Bush released his \$2.9 trillion fiscal year 2008 budget this week, with \$24.3 billion targeted for Department of Energy (DOE) programs. Four key nuclear-related budgetary items include: the Global Nuclear Energy Partnership (GNEP), the Nuclear Power 2010 program, the Yucca Mountain repository, and the environmental management and cleanup of the former nuclear weapons complex.

GNEP, a project to promote global use of nuclear energy and the recycling of nuclear waste in a safe manner that decreases the threat of proliferation, saw a 62 percent increase in the FY2008 budget over last year's request (\$405 million from \$250 million). In considering the administration's request for FY2007 last year, the House expressed concern over the lack of clarification of GNEP's long-term strategic plan. The House version of the energy and water development appropriation for FY2007 had cut the administration's request by over half, to \$120 million. DOE released the Global Nuclear Energy Partnership (GNEP)

Budget cont.

Strategic Plan on January 10 of this year, which highlights policy principles and implementation criteria/technology before detailing an action plan for fulfilling the goals of the project (see summary from 1/17/07). Despite the plan, Congress continues to raise questions over the prospects of various aspects of GNEP and are expected to again trim the president's requested level for the project in FY2008.

The Nuclear Power 2010 program is a joint government/industry cost-shared effort to develop the nuclear energy industry by identifying new sites, developing and marketing advanced technologies, evaluating business prospects, and testing new regulatory processes for licensing plants more quickly. The program received a 111 percent increase over the budget request for FY2007, to \$114 million. According to DOE's budget highlights document, this funding is necessary "to complete the two Early Site Permit demonstration projects and continue the New Nuclear Plant Licensing Demonstration projects that will exercise the untested licensing process to build and operate a new nuclear plant."

Yucca Mountain, Nevada is the federally-designated location for a geologic repository for the permanent disposal of spent nuclear fuel and high-level radioactive waste. The project has faced chronic delays due to legal and regulatory hurdles which have stymied progress on developing and operating the site. Meanwhile, DOE has missed its contractually-obligated deadline of 1998 to accept spent fuel from commercial reactors, and in the past year has been forced to begin paying for this breach and its resulting costs to reactor sites to store the waste themselves on-site. The FY2008 budget request for the Office of Civilian Radioactive Waste Management (OCRWM), which runs the project, is \$494.5 million, down from the FY2007 request of \$544.5 million. The project plans to submit its long-awaited license application to the Nuclear Regulatory Commis-

sion in the summer of 2008 and complete a report for Congress by 2009 exploring the need for a second repository. Cuts to the project include over \$20 million for the design of a railway to Yucca Mountain via the Caliente Corridor since another potential passage has been opened for examination. Over \$30 million has been cut from other transportation and stakeholder funding to be resumed at a later date. OCRWM plans to announce new "fix Yucca" legislation in the coming weeks to speed repository progress, while taking into account the ill reception of last year's bills which promised similar resolutions to the project's ongoing delays.

DOE is responsible for the environmental management and cleanup of the former nuclear weapons complex, which left a legacy of radioactive waste at sites across the country following production of atomic weapons during the Cold War. The funding request for this enormous cleanup project for FY2008 is \$5.545 billion (both defense and non-defense environmental cleanup). This is a mere 2.7 percent drop from the FY2007 request, but a precipitous 14.4 percent drop from the actual 2006 appropriation. DOE unveiled an "accelerated cleanup strategy" in 1998 to focus attention and dollars on expediting cleanup of a few larger sites, the savings from closing those sites to be reinvested into future cleanup of the sites put on "hold" during the process. DOE now plans to look at sites on an individual basis and determine funding based on a "safe, cost effective risk reduction" prioritization strategy.

[DOE budget](#)

[DOE budget highlights](#)

[RW Director's budget rollout](#)

[EM budget documents](#)

Canadian Repository Proposal Met with Resistance in U.S.

1/02

In the search for a permanent repository for its growing volume of nuclear waste, the Canadian Nuclear Safety Commission has proposed investigations into the establishment of a disposal facility within the Great Lakes region of Ontario, bordering the United States.

The Ontario proposal would establish an underground disposal site for low- and intermediate-level wastes (defined by radioactivity per mass or volume) less than one mile from Lake Huron on the U.S.-Canada border. Under the proposal, nuclear plants throughout Ontario would send waste to an on-site facility at the Bruce nuclear power complex, approximately 120 miles northeast of Detroit, Michigan.

While far from set in stone, the idea has encountered opposition from Michigan Congressman Bart Stupak and other interest groups and individuals in the U.S. Stupak, who has been a proponent of nuclear power and is slated to become the leader of the House Energy and Commerce Subcommittee on Oversight and Investigations when Congress reconvenes this week, has been outspoken in his discomfort with the safety uncertainties related to the proposal.

“How foolhardy to have this on the shores of Lake Huron,” said Stupak in a recent interview with The Detroit News. “How do you clean up (nuclear contamination) in water?”

Representative Stupak has already expressed his desire to hold hearings on the proposal once the 2007 Congress convenes.

Canada’s need for a permanent repository mirrors the situation facing the United States. In Michigan, all three active nuclear power plants, and the decommissioned Big Rock facility, are currently keeping their waste in on-site interim storage as a result of the federal government’s inability to accept the spent fuel.

This has become a familiar scene at nuclear plants across the country as the debate over the federally designated repository at Yucca Mountain, Nevada has continuously delayed development and operation of the site. Under the current “best achievable schedule,” Yucca Mountain would begin accepting waste in 2017, however, this timeframe does not take into account likely roadblocks resulting from litigation or funding shortfalls expected with the change in congressional leadership following the 2006 elections.

[News Article](#)

New Jersey Governor to Monitor Nuclear Plant License Renewal

1/04

After visiting the Oyster Creek Generating Station in late December, New Jersey Governor Jon Corzine has decided to assemble a special state delegation to gather information on the plant as the Nuclear Regulatory Commission (NRC) reviews its license renewal application.

Oyster Creek began operating 37 years ago and is the oldest large-scale commercial power plant in the United States. Nuclear reactors are initially licensed for a 40-year span and can receive a 20-year renewal thereafter if they pass NRC environmental and safety requirements. If the reviews of Oyster Creek prove acceptable to the NRC, the plant could receive its license renewal by May of 2007.

The visit by the governor and other state officials (including Homeland Security Director Richard L. Canas, Board of Public Utilities President Jeanne Fox, Environmental Protection Commissioner Lisa Jackson, and Labor Commissioner David J. Socolow) was a surprise to some, as governors have traditionally steered away from determining nuclear reactor safety, deferring to the NRC’s expertise. Corzine, however, expressed his

Other cont.

belief in the importance of oversight in determining whether Oyster Creek can operate safely for another 20 years.

The site also houses an independent spent fuel storage installation for dry cask storage of radioactive waste that has been removed from the reactor's spent fuel pool as it has filled over the years. There is currently no definite schedule for when the federal government will take ownership of and remove the waste, as it was contractually obligated to do by 1998.

Following his tour of Oyster Creek the week before Christmas, Corzine said he was impressed with the plant's security and personnel, but had some lingering concerns that merited further attention, according to spokesman, Anthony Coley.

Oyster Creek representatives appeared to be pleased following the governor's visit, and said they would welcome any future visits from the governor or state officials. Opponents of the renewal, hoping for the support of a major political figure should the NRC approve the application, also cast the governor's interest in a positive light.

[News Article](#)
[Oyster Creek Website](#)

Energy Secretary Releases Head of NNSA

1/05

Energy Secretary Samuel Bodman has requested the resignation of Linton Brooks, head of the National Nuclear Security Administration (NNSA). Brooks, who has held the post since May 2003, stated plans to submit his resignation by the end of January.

The dismissal was the result of what Secretary Bodman viewed as a lack of progress in correcting security problems that have plagued NNSA for years. NNSA

was created by Congress and formed in March 2000 within the Department of Energy (DOE). Among the responsibilities to which NNSA was assigned were protecting the nation's nuclear complex and the promotion of nonproliferation.

Last year it was discovered that personal information on more than 1,500 employees had been stolen in June 2004. While NNSA discovered the theft in the summer of 2005, it did not inform Bodman of the event until June 2006. In October, police discovered hundreds of pages of top-secret documents at the home of a former Los Alamos National Laboratory employee during a drug raid.

A report on the incident from DOE's inspector general, Gregory Friedman, concluded that "in a number of key areas, security policy [at Los Alamos] was non-existent, applied inconsistently or not followed."

Brooks acknowledged the trouble his administration has had in improving security at NNSA sites. Referring to the recent security breach at Los Alamos he said, "one reason for forming NNSA was to prevent such management problems from occurring. We have not yet done so in over five years. For much of that time I was in charge of NNSA."

Criticism of Brooks and NNSA's performance also came from legislators and independent groups following the recent breakdowns.

"His departure is long overdue," said Rep. Joe Barton of Texas, who had called for Brooks's firing following the handling of the theft of employee information.

On Friday, January 5, President Bush announced the selection of Thomas D'Agostino, currently deputy administrator of defense programs within NNSA, to serve as the acting head.

[DOE Press Release ..](#)
[Albuquerque Tribune Article](#)

NRC Must Consider Environmental Impacts of Terrorist Attacks on Spent Fuel Storage Facility

1/26

The U.S. Supreme Court decided not to review a Ninth Circuit Court of Appeals ruling that the Nuclear Regulatory Commission (NRC) must consider the environmental impacts of intentional attacks at a proposed spent fuel storage facility in California under the National Environmental Policy Act (NEPA).

The NRC had argued that the likelihood of a terrorist attack on the storage facility, which is intended to house spent nuclear fuel from the Diablo Canyon reactors in San Luis Obispo, is so improbable and speculative that it does not warrant considering those attacks in an environmental impact statement. Intentional attacks on nuclear facilities are taken very seriously, however; the NRC regularly evaluates threats on such sites during drills and inspections and has used its authority under the Atomic Energy Act to enhance security since September 11, 2001.

Mothers for Peace, an interest group who brought the original lawsuit against the NRC for not holding a hearing to examine the plausibility of an attack, argued that the storage plan, which includes 140 casks located in close proximity on a hillside near the Pacific Ocean, made the site a vulnerable and appealing target for terrorists and therefore worthy of attack consideration.

Since the high court's ruling not to review the lower court's decision, the NRC has stated its intention to promptly determine how best to comply with that decision and incorporate a potential terrorist attack's environmental implications under NEPA before awarding Pacific Gas and Electric Co. (PG&E) a license to operate the storage facility. PG&E has expressed its intention to continue construction on the site, but will not begin storing fuel there until receiving the final NRC go ahead.

Because the Department of Energy has failed to live up to its contractual obligation to take spent fuel from reactors by a 1998 deadline and has no near term strategy to do so, Diablo and most other plants around the country are currently housing about five times the waste their facilities were designed to manage, requiring additional storage. Diablo Canyon reactors are licensed for another 20 years, and ten applications are pending for license renewal (up to 40 years) at other facilities nationwide. Under today's scenario of no final disposal site being ready to accept spent fuel in the near future, on-site storage will be necessary if the nuclear power industry is to continue operations as expected.

The NRC is currently considering an extension of New Jersey's Oyster Creek reactor license, and there are assumptions that the court's decision on Diablo could have far-reaching implications in this and other nuclear facility renewal projects. Industry members seeking to build new reactors in response to the Bush administration's call for a nuclear renaissance may also feel an impact if additional environmental considerations require greater expense and time during the NRC application and review process.

Nuclear Waste News; Volume 21, No. 2; January 26, 2007; pages 11-13.

Platts Nuclear Fuel; Volume 32, No. 3; January 29, 2007; page 15.

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>

NUCLEAR unWASTEd NEWS

National Conference of State Legislatures, 7700 East First Place, Denver,
Colorado 80230, (303) 364-7700.

William T. Pound, Executive Director

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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.

**Contributors to this issue:
Christina Nelson and Brice Kindred.**

Layout and design: Alise Garcia.