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Another voice / Nuclear recycling

Process could be key to reducing use of fossil fuels

By Theodore G. Adams

Updated: 10/31/07 6:47 AM

While the use of nuclear energy is likely to grow in coming years, its ultimate role in meeting energy needs in a carbon-constrained world is still up for debate.

And increasingly, that debate swirls around a controversial process once used at West Valley, the former nuclear reprocessing facility, to squeeze more energy out of spent fuel. Instead of disposing of spent fuel, the United States allowed its valuable components to be recycled so that plutonium and uranium could be extracted to make new fuel for the production of electricity.

Recycling has been prohibited in the United States since 1977 because of nuclear proliferation fears. It was also considered too costly. Now, after three decades, President Bush is proposing to revive the process as part of his Global Nuclear Energy Partnership.

If approved by Congress, the partnership would encourage the worldwide use of nuclear energy and allow the U.S. nuclear industry to function a lot more efficiently and economically. As part of this plan, research would be undertaken on developing new recycling technologies that limit, if not prevent, nuclear proliferation. The Department of Energy is considering 11 sites for a recycling facility, with most of the focus on the Savannah River Site in South Carolina and the Idaho National Laboratory. The West Valley facility, which is being dismantled and cleaned up, is not being considered.

The case for nuclear recycling is strong. If the spent fuel now being stored in water pools and dry casks at nuclear power plants around the United States — some 50,000 tons — were recycled, it would help conserve uranium resources, which are not unlimited. It would also significantly reduce the volume, heat and toxicity of the remaining high-level radioactive waste that isn't recycled, in effect more than doubling the capacity of the Yucca Mountain waste repository in Nevada.

Opponents insist that recycling would be too costly, but not if the expanded use of nuclear energy helped prevent catastrophic consequences from climate change. For one thing, there is up to 100 times more energy potential in fuel that's been recycled and used with conventional nuclear plants and advanced reactors.


France and Great Britain continued to recycle spent fuel after the United States stopped, and they have done it safely and efficiently. Largely as a result of recycling, France today exports nuclear-generated electricity to other European countries, at considerable profit. France also has the lowest per-capita emission of greenhouse gases of any industrial country.

It's now in our national interest to proceed with research and development of nonproliferating technologies for recycling. Given the specter of climate change, we cannot afford to limit the ability of nuclear power to provide the emission-free energy that the world needs.

Theodore G. Adams is a health physicist who worked at the West Valley facility for more than 10 years.

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<http://www.buffalonews.com/opinion/anothervoice/story/196076.html>

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*Energy Communities
Alliance, Nov. 1, 2007*

Yucca Mountain encounters brick wall in Senate
E & E Daily
November 1, 2007

Three powerful senators yesterday accused federal agencies of interagency secrecy and conspiracy to advance the Yucca Mountain nuclear waste repository.

During a hearing in the Senate Environment and Public Works Committee, Chairwoman Barbara Boxer (D-Calif.) described the Energy Department, U.S.

EPA and Nuclear Regulatory Commission as "a cozy little trio" pushing forward the license application for Yucca Mountain without regard to sound scientific data or transparency.

"What is wrong with this picture?" Boxer said. "The answer: everything."

Key stakeholders said the hearing came at a "critical" time as DOE expects to file its nuclear waste disposal license application with NRC by June 30 of next year. The fate of a permanent repository is important to utility and state decisions about building new nuclear power plants, not to mention companies holding nuclear waste.

That sense of urgency prompted the ranking member on the committee, Sen. James Inhofe (R-Okla.), to press for advancement of the project.

"We need to get on with this process," Inhofe said. "The time is right to continue with it ... [and] if not Yucca Mountain then where? We are not going to resolve our problems without nuclear."

But Boxer put a stop to any broader discussions of nuclear power early. "This is about whether Yucca Mountain is safe," she said. Whether people are pro-nuclear or against nuclear is "immaterial" to the hearing, she added.>

Boxer and Sen. Hillary Rodham Clinton (D-N.Y.), another opponent of the project who requested the hearing, particularly wanted answers on the timeline for the setting of radiation standards for the site from EPA.

Robert Meyers, principal deputy assistant administrator at EPA's Office of Air and Radiation, simply replied, "We hope to get that done soon."

When pressed on a specific date, Meyers said the agency is working on the matter and has reviewed "thousands" of comments since preliminary standards were released in 2005. "Well, that's very enlightening, Mr. Meyers," responded Clinton with more than a hint of sarcasm.

The Democrats' leading presidential contender for 2008 then suggested EPA was refusing to put out a standard so DOE wouldn't "mangle the science" or end up back in court.

DOE position

EPA originally set out radiation standards for the Yucca site in 2001, but those standards were rejected by the U.S. Circuit Court of Appeals for the District of Columbia in 2004 as they did not project radiation levels to a time with the highest releases of radiation, or a period of 1 million years.

Edward Sproat, director of DOE's Office of Civilian Radioactive Waste Management, said the radiation standard was "one very small piece" of their license application, and that NRC could begin their review without it.

"I fully expect the EPA standard will go through court again, taking another three to six years. It makes no sense [to delay]," Sproat said.

DOE is not going to wait, said Sproat, expressing "high confidence" that the data the department provides in its license application -- a radiation level

of 5 millirems per year in 200,000 years within a 11-mile radius -- will show the repository can meet whatever standard EPA comes up with.

Michael Weber, director of NRC's Office of Nuclear Material Safety and Safeguards, said NRC could begin to review the application without the EPA standard, but it is necessary to make a final decision on the application. A delay or significant change in a final standard could extend NRC's estimated three-year review process, he added.

Reid lashes out

Senate Majority Leader Harry Reid (D-Nev.), a vigorous opponent of the project, had strong words about the radiation standard, which is currently derived from a computer modeling program DOE has not made accessible, he said.

"I'd like to someone here to explain to me how the [DOE] can write a computer modeling program that can prove it can meet an EPA radiation standard that doesn't exist ... unless of course, the [DOE] has told the EPA how to write it," Reid said during his testimony.

All three agencies vigorously denied any secrecy in the project and said cooperation is necessary to produce a robust application for NRC to docket and review.

The three senators also pointed out the longevity flaws in the canisters meant to hold the waste, earthquake activity in the area, the risk to contamination of groundwater and serious terrorist and safety threats to millions of people while the waste is transported around the country.

Back to the drawing board?

Clinton, Boxer and Reid were not alone in their criticisms of the site or calls for an alternative solution to the long-term storage of nuclear waste.

Sen. John Ensign (R-Nev.) had this to say: "Yucca Mountain is dead. It is never going to be completed."

Ensign went on to argue the money slotted for the repository -- a figure that could reach \$77 billion, according to DOE -- should be invested in nuclear fuel recycling technology.

But Sproat said fuel recycling and reprocessing would not solve the long-term waste problem as about 25 percent of the waste slotted to go into Yucca Mountain is not reusable and must be stored somewhere.

Sen. Larry Craig (R-Idaho) pointed out that his state, as well as South Carolina and others, have taken nuclear waste from other states -- including from West Valley, N.Y. -- on the promise that the waste would eventually be placed in the repository.>

If Yucca Mountain doesn't open by the contracted removal date in 2025, "should [Idaho] send the waste back to New York?" Craig asked Clinton.

Clinton didn't reply but said it was past time to find an alternative solution. The United States should "assemble the best scientific minds and start over," she said.

Some critics have accused Clinton of using the repository issue for her political advantage during her presidential campaign. Nevada is a key primary state in the Democratic nomination process. Sen. Barack Obama, (D-Ill.), another prominent Democratic presidential candidate, submitted a letter for the hearing record that said it was time to search for an alternative to Yucca Mountain (Greenwire, Oct. 31).

Reid pointed out that the dry cask storage currently used at the utility sites

would be good for 100 years, and thus there is no reason to rush to find a solution when future generations may have better technology and answers.

But Inhofe said it would be a waste of 25 years and \$6 billion of taxpayer money if the repository is abandoned "before the NRC has even evaluated it."

Nuclear's growing costs

Although Boxer tried to stop any broader discussions of nuclear power, the discussion of nuclear power's "renaissance" leaked through.

Senators who support the repository warned that the lack of a solution to the nuclear waste question could curtail the utilities' interest in nuclear power -- a necessary solution to the problem of climate change and any carbon cap, Craig said.

James Kerr, the president of the National Association of Regulatory Utility Commissioners and a commissioner for the North Carolina Utilities Commission, said it would be easier for the state commissioners to address the issue of climate change and the role nuclear power will play if the fate of the repository was settled.

"It would take one of the risk factors off the table" when trying to determine the cost of future generation to ratepayers, Kerr said.

Taxpayers are already liable for an estimated \$7 billion because DOE broke its contract with utilities to remove the waste by 1998 and will only begin to take nuclear waste by 2017 if the licensing process goes according to schedule, Sproat said at an earlier hearing (Greenwire, Oct. 5).

But taxpayers could be liable for more if nuclear power goes forward.

The nuclear industry has said new power plants cannot be built without a government loan guarantee program, made available by the Energy Policy Act of 2005 for advanced technology that helps mitigate carbon emissions.

A letter released yesterday by a group of taxpayer watch groups asked senators to vote against language in the current energy bill that would "effectively strip Congress of all oversight of the program and allow the DOE to disperse unlimited loan guarantees."

The Senate energy bill would give DOE a free hand to provide loan guarantees for a large number of new nuclear plants without permission from congressional appropriators. The nuclear industry reportedly plans to seek loan guarantees totaling tens of billions of dollars in coming years as energy companies seek to build over 30 new reactors. But House appropriators have called for a much smaller cap on the program.

The key to the loan guarantee program is that applicants pay for the program through fees that would cover any defaults on the loans so it won't cost taxpayers anything. But that assumes most projects are successful and don't have multiple expensive nuclear projects in mind, critics say.

The Congressional Budget Office considers the risk of default on nuclear loan guarantees to be above 50 percent, the letter -- signed by Taxpayers for Common Sense Action, National Taxpayers Union and Council for Citizens Against Government Waste -- pointed out.>

The nuclear industry has already made it clear that they need \$50 billion in loan guarantees over the next two years. Taxpayers should not be required to finance billions in risky loan guarantees," the letter stated.

Buffalo News, Thursday, November 8, 2007

Everybody's Column:

Reprocessing nuclear waste is not in our best interest

Updated: 11/08/07 7:14 AM

The author of the Oct. 31 Another Voice is wrong that it is in our national interest to develop technologies to reprocess nuclear wastes. Theodore Adams admits uranium is not a renewable resource. Reprocessing spent fuel would not lengthen the nuclear industry's lifespan long enough to offset the environmental damage done by the industry. The damaging effects last infinitely longer than the nuclear industry ever will.

France is often referenced as a model by proponents of reprocessing. France finds all kinds of creative uses for radioactive waste, including mixing it with materials to pave streets. Nuclear industry propaganda claims no carbon dioxide is emitted in the production of nuclear power. But nuclear power is not emission-free energy. Using nuclear reactions to boil water to produce electricity is one small part of the entire fuel cycle. The entire nuclear fuel cycle generates huge carbon dioxide outputs.

New reprocessing technologies are not proven. When the U.S. government becomes so responsible that it commits the technical and financial resources to fully clean the West Valley site, then maybe we can talk about using more nuclear energy. If experience holds, we won't be having that conversation anytime soon.

Judith Einach

Director, Coalition on West Valley Nuclear Wastes

MONITOR

WEAPONS COMPLEX

Waste Management ♦ Clean Up

Volume 18 No. 51

November 12, 2007

URS INCREASES BID TO \$3.2 BILLION TO ACQUIRE WASHINGTON GROUP

Wash. Group Founder Agrees to Vote Shares If Necessary to Approve New Deal

In an attempt to shore up its flagging effort to purchase Washington Group International, URS earlier this month increased its bid to \$3.2 billion in cash and stock. The move, which URS has described as its “best and final offer,” comes in response to opposition by some Washington Group shareholders to the proposed merger over concerns that Washington Group was being undervalued. Such opposition helped scuttle a planned Oct. 30 vote by shareholders of both companies on the deal (*WC Monitor*, Vol. 18 No. 50). Under the terms of the new deal, which was announced Nov. 5, Washington Group would be valued at 97.89 per share, up from the \$90.20 per share Washington Group was valued at before the new bid was announced. In addition, Washington Group shareholders are now set to control a greater percentage of URS should the deal be approved—35 percent versus 32 percent as contained in URS’s initial offer. Both URS and Washington Group have scheduled shareholder meetings to vote on the revised deal for Nov. 15. In a joint release, top officials from both URS and Washington Group praised the new agreement. “The enhancement to the terms of our agreement reflects URS’ commitment to the combination with Washington Group and our conviction that the transaction will create significant benefits for the stockholders, customers and employees of both companies,” said URS Chairman and CEO Martin Koffel. “We believe that the recent strong performance of both companies and continued positive outlook for our businesses warrant the increase in our offer.” Washington Group President and CEO Stephen Hanks said, “The increased financial terms of our agreement with URS provide even greater value to Washington Group stockholders, as well as a higher level of continued ownership in the combined entity and greater flexibility to choose between cash and stock in exchange for their shares.”

Value of Washington Group Center of Dispute

In a move that took many in industry by surprise, URS first announced in late May its intent to purchase Washington Group in a deal value at the time at approximately \$2.6 billion in cash and stock. Both companies have cited the creation of a better positioned ‘single source’ engineering and operating firm as one of the main potential benefits of the merger. **This summer, though, the deal came under fire from some Washington Group shareholders concerned that the company was being undervalued in light of recent contract wins, such as the Department of Energy’s interim cleanup contract for the West Valley Demonstration Project, valued at approximately \$160 million through mid-Fiscal year 2011; and future prospects.** Among those who came out against the deal was Washington Group’s largest institutional shareholder, Greenlight Capital, which holds approximately 10 percent of the company’s stock. The dispute

over Washington Group's value led hedge fund Schultze Asset Management, which reportedly holds 3 percent of the company's stock, to file a lawsuit last month seeking to block the initial Washington Group shareholders' vote on the deal. Washington Group was able to settle the suit shortly before a planned court hearing by agreeing to release additional information to shareholders concerning the merger (*WC Monitor*, Vol. 18 No. 47). Several leading proxy advisory firms also took differing stances on URS's initial bid, with three—Glass Lewis, Proxy Governance and Egan-Jones—coming out in favor of the deal, while one, Institutional Shareholder Services, recommended a vote against.

Will Investors Accept New Bid?

It remains to be seen whether investors of both companies, especially Washington Group, will warm up to the new deal or continue to hold out for more. According to a revised proxy statement filed by URS and Washington Group with the Securities and Exchange Commission, Washington Group officials tried twice to seek more compensation from URS after it presented its new bid, but to no avail. The proxy also notes that no other companies have expressed an interest in purchasing Washington Group following the announcement of URS's initial bid. Notably, URS's revised offer hinges on the support of Washington Group's founder and chairman, Dennis Washington. According to the revised proxy, one of the conditions of URS's revised offer was that Washington would agree to exercise all of his current stock options and vote his shares in favor of the merger should such a move be necessary to approve the deal. Washington's stock options, totaling more than 3.2 million shares, represents approximately 10 percent of Washington Group's outstanding stock. —*Mike Nartker*■

MONITOR

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WASH. GROUP SHAREHOLDERS NARROWLY APPROVE URS MERGER

The proposed purchase of Washington Group International by URS cleared its final hurdle last week as Washington Group shareholders narrowly approved the merger in a deal worth approximately \$3.2 billion. URS shareholders approved the purchase in a separate meeting Nov. 15, but it was the WGI vote that was in question after concerns by some of the company's investors that Washington Group was being undervalued led to two previous delays in the vote. The deal was approved by Washington Group stockholders with "53 percent of outstanding shares of Washington Group stock," company spokeswoman Laurie Spiegelberg said last week.

With the deal complete, Washington Group will now operate as the Washington Division of URS, with former Washington Group CEO Steven Hanks named president of the new division and to URS's corporate board of directors, according to a URS news release. The joint company is set to become the fourth largest publicly traded engineering firm in the United States. "We also are delighted to welcome Washington Group's 25,000 employees to URS," Martin Koffel, chairman and chief executive of URS, said in the release. "We believe the combined company is unrivaled in terms of its professional talent and the opportunities we are able to offer our employees as part of a larger, more dynamic company."

URS Forced to Increase Bid

Last week's vote comes after URS was forced to increase its offer for Washington Group in the face of heavy opposition from some Washington Group shareholders (*WC Monitor*, Vol. 18 No. 51). When URS first announced in May its intent to purchase Washington Group, the company's offer was valued at \$2.6 billion in cash and stock. Over the summer, though, some Washington Group shareholders expressed concern that the company was being undervalued in the deal in light of recent contract wins and future prospects. Among those who opposed the merger was Washington Group's largest institutional shareholder, Greenlight Capital, as well as hedge fund Schultze Asset Management, which filed a lawsuit to block the first planned vote on whether the deal should go forward. While Washington Group was able to reach a settlement in that lawsuit, the planned Oct. 30 vote ended up being pushed back due to a lack of support from Washington Group shareholders. As part of its increased bid, URS required Washington Group founder and chairman Dennis Washington to exercise his outstanding stock options and vote his shares, accounting for about 10 percent of Washington Group stock, if necessary to make the deal go forward. Such a move, though, was not needed during last week's vote, Spiegelberg said. "His voting scenario would only have happened if the meeting were postponed and a new record date were set. That wasn't necessary," she said.

URS to Become Top-Tier DOE Contractor

With the merger complete, URS is now set to vault into the top ranks of contractors in the Department of Energy marketplace. While the company had previously played only a small role in the DOE market, Washington Group has long been seen as one of the Department's top contractors, holding either the management contract or a role on the management team at most DOE sites. "With the addition of Washington Group's complementary engineering and construction services, URS becomes one of the few fully-integrated engineering, construction and technical services firms capable of serving every phase of a project—from initial planning, engineering and construction of a project, to operations and maintenance," Koffel said. Added Hanks in a separate statement, "Washington Group International and URS are two world-class companies with exciting opportunities ahead, and I look forward to combining with URS to create a new powerhouse in the engineering and construction industry. ... Together we will have more than 55,000 employees providing even more comprehensive solutions to customers worldwide."■

—*Mike Nartker*

Commentary: Nuclear Power

Judy Einach

BUFFALO, NY (2007-11-20) 441 commercial nuclear reactors operate worldwide. Energy analysts project that within 100 years 6000 reactors may be in operation.

To mitigate damage from climate change, we have a only decade to change the way we use and produce power. Nuclear plants take almost 10 years to build. The industry says new plants take less time, but experience shows that constructing nuclear plants includes cost overruns, delays, and corruption.

Nuclear reactors need a steady supply of fresh, cool water. Existing plants have had to curtail production in summer because water temperatures have risen and cannot cool reactors. The problem is expected to worsen as temperatures continue to rise.

The industry argues that nuclear power does not emit carbon dioxide. Nuclear fission produces heat that boils water, making steam to turn generators that produce electricity. This is a very expensive and dangerous way to boil water, and only part of the fuel cycle.

Regarding the entire fuel cycle, nuclear power is anything but green. Mining, milling and enriching uranium, creating fuel pellets and rods, building nuclear power plants, and constructing facilities to store nuclear wastes consume massive amounts of power from coal or oil.

Estimates are there is only enough uranium to supply 2500 reactors for 8 years. Government supports the development of new technologies to reprocess some nuclear wastes for reuse in reactors. These are expensive, untested technologies, and not likely to create an unlimited supply of energy-grade uranium.

As the world's supply of high grade uranium is used up, the industry will rely on lesser grades. Much more fossil fuel is required to extract and refine lesser grades insuring fossil fuel inputs exceed energy output.

The problem of nuclear wastes has never been solved. From mining uranium through multiple other nuclear processes, lethal wastes contaminate the environment. Mine tailings, releases of radioactive water into waterways, and nuclear storage sites compromise the environment so badly that we are trying to figure out how to mark contaminated sites so our descendents will understand, many thousands of years from now, they must stay away.

Western New Yorkers ought to be especially aware of the problem of nuclear wastes. We live with cancer and other diseases linked to exposure at rates above the national average. Manhattan Project legacy wastes are landfilled from the

Town of Tonawanda to Lake Ontario. Radioactive isotopes traceable to the West Valley Demonstration Project were found in the Niagara River and Lake Ontario by Canadian researchers. The West Valley nuclear site contains the most complex mix of nuclear and hazardous wastes in the nation, a cocktail exponentially more dangerous than nuclear or hazardous wastes alone. One terrible breach at this site and Erie and Niagara Counties could become uninhabitable in one day's time.

Nuclear power will not make us energy-independent. Nuclear enslaves and threatens. We monitor and maintain nuclear facilities with such vigilance that we cannot turn our backs for fear of an accident. Nuclear power and weapons proliferation are inseparable. Government says it is working on ways to prevent weapons proliferation, but nuclear weapons are highly prized and we have done a poor job of securing the materials to produce them, let alone creating conditions that would cause nations not to wish to use them.

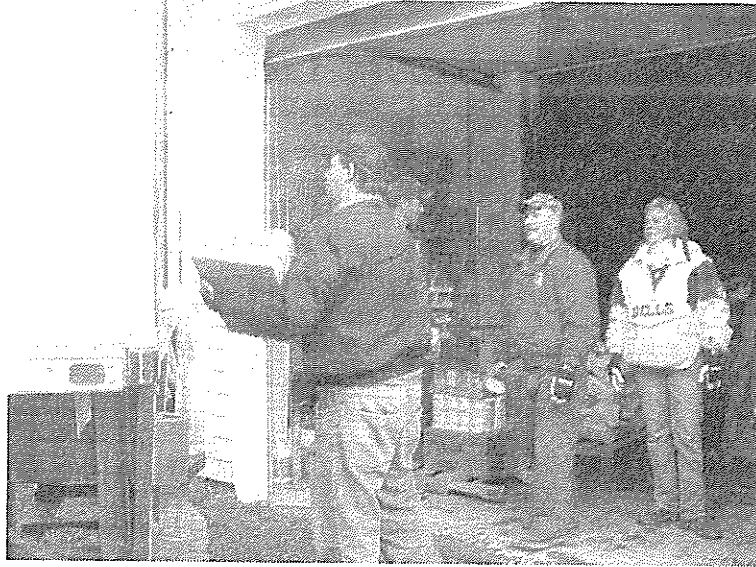
Nuclear is a big industry with powerful allies engaged in a propaganda campaign to convince us nuclear is safe and green. It is neither.

Listener-Commentator Judy Einach is director of the Coalition on West Valley Nuclear Wastes.

Click the "listen" icon above to hear the commentary now or use your podcasting software to download it to your computer or iPod.

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Springville Journal, Thursday, November 22, 2007



WVDP Stocks Local Food Pantries

Over 54,000 pounds of food was recently donated by employees and friends of the West Valley Demonstration Project. The food went to local food pantries in Springville, West Valley, Little Valley, Franklinville and Delevan. U.S. Department of Energy, New York State Energy Research and Development Authority, WVES, I.A.M.A.W. Local 2401, Environmental Chemical Corporation, Inc., WSMS, SLR Construction, RJR Engineering, Health Systems Safety, International Waste Removal, Intomes Technical Services, MJW Technical Services, Olean Wholesale, Salamanca Parkview and Winter's Potatoes all joined together to make this year's food drive an outstanding success.

Olean Times Herald
Sunday, November 18, 2007

West Valley workers donate tons of food

WEST VALLEY — More than 54,000 pounds of food was donated by employees and friends of the West Valley Demonstration Project.

The food went to local food pantries in Springville, West Valley, Little Valley, Franklinville and Delevan.

Employees from the U.S. Department of Energy, New York State Energy Research and Development Authority, West Valley Environmental Services, I.A.M.A.W. Local 2401, Environmental Chemical Corporation, Inc., WSMS, SLR Construction, RJR Engineering, Health Systems Safety, International Waste Removal, Intomes Technical Services, MJW Technical Services, Olean Wholesale, Salamanca Parkview and Winter's Potatoes joined together to make this year's food drive a success.