

# WEST VALLEY WASTEWATCH

No. 4

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## The West Valley Nuclear Waste Site “Phase 1” Studies

These will affect the decision in 2020 on whether to fully clean up the site.

*What* is being studied with what goals?

*Who* is doing the studies?

*How* can the public give input?

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### DOE and NYSERDA make the rules.

The Department of Energy (DOE) and New York State Energy Research and Development Authority (NYSERDA) decided in 2010 to study the West Valley nuclear waste site for 10 years (during “Phase 1”) and THEN decide, based on the scientific studies, whether to excavate the buried waste-whether to do a Phase 2. In January 2012 they produced a “**Guidance Document**” outlining the process for the studies. The link to it is <http://www.nysesda.ny.gov/en/Programs/West-Valley/~media/Files/EE/West%20Valley/Environmental%20Impact%20Statement%20Documents/phase1-study-guide.ashx>

DOE and NYSERDA have differing views on the various dangers of the West Valley site and what waste must be removed. The public views are often different from both agencies.

### Enviro Compliance Solutions (ECS) hired to carry out the rules.

The agencies hired a company, Enviro Compliance Solutions (ECS), to manage the West Valley Phase 1 Studies. ECS will hire of experts that DOE and NYSERDA choose to do the studies and will provide some of their own expertise. ***The public must maintain vigilance over the Phase 1 Studies, watching DOE, NYSERDA, ECS, the study teams and oversight panel closely.***

DOE/NYSERDA set up a **Panel** (‘independent scientific panel’ or ISP) **to oversee the study work and to serve as mediator between DOE and NYSERDA.** The proposed Panel was completely industry dominated. The agencies refused to replace their candidates with more balanced public recommendations, but did add one member with a history more compatible with the public perspective. More public interest members are needed for any hope of “balance” on this influential Oversight Panel.

### What is being studied with what goals?

The NYSERDA DOE **Guidance Document lists of Potential Areas Of Study** [which could change]:

- Soil erosion (Study Underway- 7 experts; 1 was added at request of public interest organizations; 3 at request of DOE; 3 at request of NYSERDA; scope has not been made public)
- Groundwater flow and contaminant transport
- Catastrophic release of contamination and impact on Lake Erie
- Slope stability and slope failure
- Seismic hazard
- Probabilistic versus deterministic dose and risk analysis
- Alternate approaches to, costs of, and risks associated with complete waste and tank exhumation \*\*
- Viability, cost, and benefit of partial exhumation of waste and removal of contamination \*\*

- Exhumation uncertainties and benefit of pilot exhumation activities\*\*
- In-place closure containment technologies \*\*
- Engineered barrier performance \*\*
- Additional characterization needs
- Cost discounting and cost benefit analyses over long time periods.

### Who is doing the studies?

DOE, NYSERDA and ECS will pick the experts for the studies. Two teams will be hired to do 5 new studies \*\* (highlighted above) to begin soon. One will study the 3 excavation options and one will study leaving the waste in place, using engineering to prevent offsite migration. ECS could do this itself too.

### What is being studied with what goals?

Since the Study Teams design the studies with DOE, NYSERDA, ECS and the Panel's input, the Study Team Membership really matters! This is a frustrating set-up because those who do not share the same public protection goals are in the driver's seat, choosing experts THEY consider qualified. At best the public might get one or two (outnumbered) independent expert(s). Public access to the teams is limited.

- **How can public give input? Contact: [LMG@nyserda.org](mailto:LMG@nyserda.org) & [MOIRA.N.MALONEY@WV.DOE.GOV](mailto:MOIRA.N.MALONEY@WV.DOE.GOV) AND OUR ELECTED OFFICIALS STATE AND FEDERAL**

We in the public must scrutinize the experts chosen and find competent experts to be on the teams. The right questions must be asked and realistic, precautionary assumptions made. EX:

- 1) **the future costs of damage and remediation work must not be "discounted" (a financial technique of reducing the future value of money thus reducing the apparent cost of future routine work and disasters).** Even though "cost discounting" is a potential future study area the assumption is pivotal in the 5 studies beginning now.
- 2) **all the in-place burial and remediation costs must be extended out for 10 -20 times the half life of the longest lasting buried waste.** Thus since plutonium (hazardous a quarter to half million years) is present the teams cannot assume 100 years of care are all that are needed.

The 2008 independent *Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site* needs to be included in the study team analysis.

<http://www.nirs.org/radwaste/decommissioning/wvfcareport1108.pdf>

If we don't weigh in now on the whom the experts are—what their experience and biases are and on the scope, how can we hope the teams will look at the costs for as long as the waste is hazardous? We must know HOW LONG they will assume there will be institutional controls and active placement of barriers to ever-changing waste flows.

There are currently no publicly-revealed plans for replacement of the Permeable Treatment Wall which is already in place to filter the known migrating radioactive plume, but it is only expected to last 20 years. The futility and reality of the constant need for more and more barriers on the rapidly eroding plateaus must be incorporated into the studies.

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[www.bit.ly/WestValleyNuclearInfo](http://www.bit.ly/WestValleyNuclearInfo)

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**Springville Journal, 05/24/2012**

## **West Valley CS students win science awards**

By:Submitted to Journal



*FUTURE SCIENTISTS — Pictured, from left: Jordan Seltzer, Frank Cardamone, Alex Fuller and Kristy Kowalski. Not pictured: Alyssa Cizdziel.*

This year the U. S. Department of Energy and the New York State Energy Research and Development Authority, West Valley Demonstration Project is sponsoring the “Outstanding Academic Achievement Award.”

This award recognizes the highest academic averages achieved by one student in one each of the following science classes: earth science, living environment, chemistry, physics and advanced placement biology.

This year’s certificate winners are Jordan Seltzer for earth science, Frank Cardamone for living environment (biology), Alex Fuller for chemistry, Alyssa Cizdziel for physics and Kristy Kowalski for advanced placement biology.

NEWS RELEASE

## First Female Native American Earns PhD in Engineering at UB

Great Law of the Haudenosaunee has guided Shannon Seneca's academic career



Shannon Seneca is the first female Native American to earn a doctoral degree from UB's School of Engineering and Applied Sciences.

Release Date: May 29, 2012

BUFFALO, N.Y. -- Seeing the Rocky Mountains usually tops the list of things to do when visiting Colorado.

Not for Shannon Seneca, who vacationed there after graduating high school 15 years ago. Upon landing in Denver, she headed straight for the Rocky Flats Plant, a former nuclear weapons production facility.

"It wasn't even open to the public," she recalled. "I actually talked the people working there into giving me a tour."

The visit solidified Seneca's interest in nuclear waste and helped lead her to the University at Buffalo, where on May 12 she became what's believed to be the first female Native American to earn a doctoral degree from UB's School of Engineering and Applied Sciences.

Seneca credits her background -- she is a Mohawk and part of Six Nations community based near Brantford, Ont. -- as the guiding force behind her studies. As a child, she was told the Great Law of the Haudenosaunee (Iroquois Confederacy), which essentially says that people should consider how their decisions will affect future generations.

She received a bachelor's of science degree in physics at Buffalo State College in 2001 and a master's of science degree in 2006 in environmental engineering at UB. She then began working with Alan Rabideau, PhD, professor of civil, structural and environmental engineering at UB.

Rabideau has been studying groundwater contamination at the **West Valley** nuclear fuel reprocessing center for years. In 2007, he received funding from the National Science Foundation to create a program called Ecosystem Restoration through Interdisciplinary Exchange (ERIE), which helps train new environmental scientists in nontraditional ways to repair impaired environments.

Seneca joined the program, which included a groundbreaking effort to remove radioactive waste from **West Valley**, located 30 miles south of Buffalo. She helped Rabideau develop a permeable wall that, when placed underground, filters and removes strontium-90 from the soil. Strontium-90 is found in spent nuclear fuel rods.

University of Buffalo Press Release, 05-29-2012

*(continued)*

"Shannon's contributions, from extensive lab testing to helping develop complex mathematical models, as well as her collegiality and commitment to interdisciplinary work, have been invaluable to the ERIE program and the Western New York community," Rabideau said.

In addition to her studies, Seneca has been involved in numerous Native American-related student activities. She helped found a local chapter of the American Indian Science and Engineering Society and has worked in the Buffalo Public Schools Native American Magnet School under a National Science Foundation grant led by Joseph A. Gardella Jr., John & Francis Larkin Professor of Chemistry at UB.

Seneca also helped mentor other Native American engineering students at UB, two of whom earned their master's degrees the same day she received her doctorate.

"It's been amazing," she said of her time at UB.

# The Buffalo News

Thursday, June 7, 2012

## LOCAL NEWS BRIEFS

### CONGRESS

#### **House acts to boost funding at West Valley**

WASHINGTON — The House on Wednesday passed an amendment that's likely to boost federal funding for the West Valley Demonstration Project beyond what the Obama administration had proposed for fiscal 2013.

The amendment, which passed by a vote of 223-195, transfers \$36 million in funds from administrative accounts at the Department of Energy to the non-defense environmental cleanup fund, which provides West Valley with its federal funding.

The Obama administration had called for cutting funding for the project to \$48 million, from \$66 million in the current year. But the amendment — sponsored by Rep. Tom Reed, R-Corning, and Rep. Brian Higgins, D-Buffalo — would all but ensure that more money ultimately will go to West Valley.

Reed and Higgins said the additional funding is needed for the cleanup of the nuclear waste site to continue in a timely fashion.

"The remediation work at West Valley and other nuclear sites cannot slow down," Reed said. "Any delay increases the danger and cost."

Meanwhile, Higgins said: "This is a common sense, bipartisan amendment that protects our environment and our Great Lakes and prevents the cost of cleanup from multiplying."

— *News Washington Bureau*

## **Buffalo News, Saturday, June 9, 2012**

### **Appeals court rejects waste storage at nuke plants**

Updated: June 8, 2012, 6:28 PM

WASHINGTON (AP) - A federal appeals court on Friday threw out a rule that allows nuclear power plants to store radioactive waste at reactor sites for up to 60 years after a plant shuts down.

In a unanimous ruling, a three-judge panel of the U.S. Court of Appeals for the District of Columbia said the Nuclear Regulatory Commission did not fully evaluate the risks associated with long-term storage of nuclear waste. The court said on-site storage has been "optimistically labeled" as temporary, but has stretched on for decades.

The decision puts the Obama administration in a bind, since the White House directed the Energy Department to rescind its application to build a final resting place for the nation's nuclear waste at Nevada's Yucca Mountain and cut off funding two years ago. An alternative site has not yet been identified.

The ruling also adds a new wrinkle to an ongoing dispute that has confounded federal officials for more than 30 years: What to do with the radioactive waste produced by nuclear power plants?

Congress designated Yucca Mountain for a nuclear waste dump, but the plan has been opposed by Nevada elected officials, most notably Senate Majority Leader Harry Reid, D-Nev.

In the meantime, the waste - actually spent nuclear fuel - is stored on site at the nation's 104 nuclear reactors in pools or in dry casks.

The appeals court said the NRC should complete a detailed environmental review of on-site storage or explain why one is not needed.

The search for a solution to the country's nuclear waste problem took on a new urgency after the March 2011 disaster at the Fukushima Dai-ichi nuclear station in Japan. Three-quarters of the 72,000 tons of spent nuclear fuel scattered across 35 U.S. states is packed into spent fuel pools similar to the ones thought to have overheated and released radioactive material into the air and water around the stricken Japanese reactors.

A presidential commission recommended in January that the U.S. immediately start looking for an alternative to the failed Yucca Mountain site, which cost an estimated \$15 billion but was never completed. The panel recommended a "consent-based" approach to siting future nuclear waste facilities, noting that attempts to force such facilities on unwilling states, tribes and communities have failed spectacularly.

## **Buffalo News, June 9, 2012 (continued)**

New York Attorney General Eric Schneiderman called Friday's ruling a landmark victory for New Yorkers and people across the country who live near nuclear power plants. New York and three other Northeastern states - New Jersey, Connecticut and Vermont - sued the NRC last year, claiming that the agency had not shown that on-site storage was safe.

"The NRC cannot turn its back on federal law and ignore its obligation to thoroughly review the environmental, public health and safety risks related to the creation of long-term nuclear waste storage sites within our communities," Schneiderman said. "The security of our residents who live in the areas that surround these facilities is paramount."

Schneiderman said the ruling means the NRC cannot license or re-license any nuclear plant, including the Indian Point nuclear plant near New York City, until it reviews the risks of on-site storage.

A spokesman for the NRC said the agency was reviewing the ruling and had no immediate comment.

Geoffrey Fettus, a lawyer for the Natural Resources Defense Council, an environmental group that joined the state lawsuit, said the NRC would now be forced to do an environmental review of on-site storage that it has long resisted.

"This is an important step in recognizing the long-term environmental impacts of nuclear waste," Fettus said.

The Nuclear Energy Institute, an industry group, called the ruling a disappointment. The industry has agreed with the NRC that on-site storage is safe.

In a statement, the group urged the NRC to complete the additional environmental analysis and reissue the rule as soon as possible.

The appeals court ruling was written by Chief Judge David Sentelle and supported by Judges Thomas Griffith and David Tatel. Sentelle and Griffith were appointed by Republican presidents, while Tatel is a Democratic appointee.

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