

# ECA Update: June 12, 2014



*In this update:*

**Officials eye 6 barrels tied to nuke dump leak**  
Associated Press

**Energy & Water Subcommittee FY15 Markup**  
Senate Appropriations Committee

**Hanford consent decree negotiations extended**  
Tri-City Herald

**MOX facility at Savannah River Site could get funding for construction**  
The Augusta Chronicle

**SRR reports funding impact on tank closures**  
Aiken Standard

**Yucca Mountain backers mount annual push to revive nuke program**  
Las Vegas Review-Journal

**GAO Report: Enhanced Transparency Could Clarify Costs, Market Impact, Risk, and Legal Authority to Conduct Future Uranium Transactions**  
Government Accountability Office

**25 years on at America's most contaminated nuclear waste site**  
BBC

**More Information**

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## **Officials eye 6 barrels tied to nuke dump leak**

Associated Press

June 11, 2014

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SANTA FE, N.M. -- Scientists investigating a mysterious radiation leak at the federal government's underground nuclear waste dump have identified five other potentially explosive containers of waste from Los Alamos National Laboratory that are being stored at a site in West Texas, New Mexico Environment Secretary Ryan Flynn told a legislative panel Tuesday.

Flynn told lawmakers that scientists have been unable to replicate the chemical event believed to have caused a drum to breach at the Waste Isolation Pilot Plant on Feb. 14, contaminating 22 workers. But they have tied the barrel to a waste stream from Los Alamos with an unusually high acid level, he said.

That waste was packed into a total of six drums, including the one at the Waste Isolation Pilot Plant in Carlsbad, New Mexico. The rest are among

more than 100 that were shipped from Los Alamos to Waste Control Specialists in Andrews, Texas, after the leak indefinitely shuttered the New Mexico facility, which is the federal government's only permanent repository for waste from decades of building nuclear bombs.

Asked if the public should be worried, Flynn said: "Every member of the community should be concerned. ... But I don't think they should be worried. I don't think people should be panicked about another drum exploding because we required (the U.S. Department of Energy) to plan for that and have a system in place to protect the public."

Chuck McDonald, spokesman for Waste Control Specialists, said all the drums there have been specially packed and are under constant monitoring.

Extra precautions are being taken with barrels that have been identified as potentially more problematic, McDonald said. Los Alamos and Waste Control Specialists took a series of extra measures to secure the more than 100 drums left in limbo by the Waste Isolation Pilot Plant's closure because they were packed with cat litter to absorb moisture. A leading theory is that a switch by Los Alamos from inorganic to organic cat litter helped fuel the "heat event" that popped the lid off the 55-gallon barrel that leaked at the nuclear waste dump.

The Department of Energy has dozens of the world's finest scientists trying to identify what type of reaction could have caused the leak, Flynn said after the hearing. But he estimated it would be months before a definitive cause is determined.

Until then, Flynn said, it is hard to speculate on what if any action can be taken to finish getting the last of thousands of barrels of decades-old waste off the Los Alamos campus in northern New Mexico. The lab had been under orders to have the waste shipped to the Waste Isolation Pilot Plant before wildfire season peaks. But given the uncertainty of what caused the radiation leak, transporting the waste now is seen as too risky.

Flynn said it also remains unclear how long the Waste Isolation Pilot Plant will be closed or how long it will take the plant to seal off the rooms where more than 350 other barrels of suspect waste from Los Alamos are currently stored.

"We just don't have any clear answers," he said.

## **Energy & Water Subcommittee FY15 Markup**

Senate Appropriations Committee

Markup: June 17, 2014

[LINK](#)

### **Agenda**

Markup of the FY15 Energy and Water Development Appropriations Bill.

### **Audio Webcast**

The markup audio will be streamed live. Please note that the audio

webcast will not be active until the markup has begun and you may need to refresh your web browser at that time.

**Location:**

Room SD-192 of the Dirksen Senate Office Building

**Subcommittees:**

Energy and Water Development

**Date:**

Tuesday, June 17, 2014 - 10:00am

**Hanford consent decree negotiations extended**

Tri-City Herald

June 11, 2014

[LINK](#)

Richland -- Washington state and federal officials will continue to discuss changes to the Hanford court-enforced consent decree, rather than taking the matter back to court.

The initial 40-day dispute resolution period expired June 2, which allowed either the state or the Department of Energy to ask a federal judge to intervene.

The state and federal governments have agreed not to seek court involvement until after June 27.

But if the state's goals cannot be reached through mutual agreement, the state remains prepared to take the matter back to court, said state Attorney General Bob Ferguson.

The state requires a plan that "provides specificity, accountability and enforceability," he said.

The state and DOE each proposed amendments to the consent decree after DOE said most of the remaining deadlines were at risk of being missed. That included the key deadline of having the vitrification plant fully operating in 2022 to treat up to 56 million gallons of radioactive waste held in underground tanks.

Both rejected the other's amendment and the state triggered a 40-day dispute resolution period, a step outlined in the consent decree. During the 40 days, negotiators have met twice in person and once by video conference.

Negotiators will meet at least once more in person for a full day to more fully explore whether an agreement can be reached on a path forward, Ferguson and Washington Gov. Jay Inslee said in a statement Wednesday.

The discussions to date have been productive and DOE is pleased that

discussions will continue, DOE said in a statement.

"We all have a vested interest in determining a viable path forward in cleaning up Hanford and ensuring the federal government fulfills its legal obligations," Inslee said.

The state's proposed amendment to the consent decree includes a lengthy and detailed list of new requirements and deadlines, including that new waste storage tanks be built and that the vitrification plant start glassifying low-activity radioactive waste by 2019.

DOE is proposing that the first low-activity waste be turned into glass by 2022. It wants to set mostly near-term deadlines that it is confident it can meet. Its proposal commits to negotiating and setting longer-term deadlines on a rolling schedule as it resolves technical issues and designs proposed facilities.

The consent decree resolved a federal lawsuit brought by the state against DOE when DOE could not meet an earlier set of deadlines, including starting to operate the vitrification plant in 2011.

### **MOX facility at Savannah River Site could get funding for construction**

The Augusta Chronicle  
June 11, 2014

[LINK](#)

The mixed-oxide fuel fabrication facility at Savannah River Site could be on track to receive more money than President Obama's budget request.

U.S. House appropriators on Tuesday approved \$345 million for the MOX plant, specifying the funds had to be used for construction activity and not to place the multibillion-dollar plutonium disposition facility on standby, as the president proposed. However, there is no guarantee that money will materialize.

The Senate has not yet considered the 2015 spending bill for federal energy and water projects. Recent congressional action, however, has left political backers of the project optimistic about the future of MOX.

A spokeswoman for Rep. Joe Wilson, R-S.C., said bipartisan support has been an important signal that the MOX project will get funding needed to continue construction.

"Congressman Wilson is confident that the MOX funding figure will be significantly higher than the president's proposed number," said spokeswoman Caroline Delleney. "The president's proposal did not reflect the best interest of our national security, the environmental safety of residents in the CSRA or the American taxpayers."

The facility, which employs about 1,800 workers and is 60 percent complete, is being built to convert 34 metric tons of weapons-grade plutonium into commercial reactor fuel.

In an effort to avoid layoffs while an analysis is completed on the plant's future, the House Energy and Water Appropriation Subcommittee approved \$150 million more than the Obama administration's request for fiscal year 2015.

In recent weeks, the House and Senate also acted in favor of MOX by authorizing spending for the project's construction in the National Defense Authorization Act. The Senate Armed Services Committee last week increased funding for the plant by \$145 million and directed the National Nuclear Security Administration, a semi-autonomous branch of the U.S. Energy Department which manages the MOX project, to continue construction.

The plant has become increasingly expensive, leading the Energy Department to slow funding for the project. MOX construction received \$320 million in fiscal 2013, \$452.7 million in fiscal 2012 and \$487.7 million under a 2013 continuing resolution.

### **SRR reports funding impact on tank closures**

Aiken Standard

June 10, 2014

[LINK](#)

The Savannah River Site's liquid waste contractor recently acknowledged the impact that federal funding reductions will have on meeting environmental milestones, including a 10-year delay in waste tank removal.

Savannah River Remediation, or SRR, displayed a graph in its Liquid Waste System Plan that showed the projected completion of tank removal from service.

Several of the milestones were set in place by a Federal Facility Agreement, or FFA. The updated completion year for waste tank removal is 2032 - 10 years later than the original FFA report, which had a completion date of 2022.

The contractor wrote that modifications required due to funding limitations include "delays in tank removal from service that are beyond FFA commitments for BWRE (Bulk Waste Removal Efforts) and operational closure commitments."

Another area of concern is work at the Salt Waste Processing Facility, or SWPF. The facility is currently under construction and will be designed to provide treatment capacity for longer-term salt processing at SRS.

SRR wrote that funding has impacted work at the SWPF as well, which has had a trickle-down effect related to work.

"Unavoidable funding reductions and delays in SWPF construction and operation have significantly impacted completion of the near term scope of this Plan," wrote SRR. "These impacts are expected to result in: Failure to meet four FFA Bulk Waste Removal Effort commitments associated with 12 tanks and five FFA Operational Closure commitments associated with 18 tanks; missing the Site Treatment Plan waste disposition

milestone by 7 years; and the inability to support planned H-Canyon processing."

Liquid waste treatment and waste tank closures have been regarded by many - including the Department of Health and Environmental Control and S.C. Gov. Nikki Haley - as the single largest environmental threat in the state.

### **Yucca Mountain backers mount annual push to revive nuke program**

Las Vegas Review-Journal

June 11, 2014

[LINK](#)

WASHINGTON -- Late spring means short sleeves, schoolchildren preparing for summer vacation, and the annual push by Yucca Mountain supporters in Congress to revive the dormant nuclear waste project.

This year is no exception. House lawmakers this week launched an energy spending bill containing \$205 million for the Nevada program that President Barack Obama ended four years ago.

Until that point, the government was developing an underground repository for the waste and other highly radioactive material, over the objections of state leaders who challenged its safety.

Republicans and Democrats from states where highly radioactive spent nuclear fuel continues to accumulate at power plants say the Yucca project can end only when Congress says so.

But while that point of view has prevailed when the House has voted in recent years, the Senate is another matter. Chief foe Senate Majority Leader Harry Reid, D-Nev., maintains a blockade against any bid to resurrect Yucca Mountain as time continues to put distance between Nevada and nuclear waste.

Congress has yet to approve an alternative other than keeping nuclear waste at the power plants, stored in pools and in concrete above-ground canisters.

Rep. Mike Simpson, R-Idaho, chairman of the House energy and water subcommittee that included Yucca funding in its \$34 billion spending bill for the upcoming fiscal year, said continued support for the project is a matter of principle.

"All we can do is what we think is right," Simpson said after his subcommittee approved the bill on Tuesday. "Yucca Mountain is still the law of the land and we want the department (of energy) to proceed with a licensing application.

"We have to do what we think is right and we will see where it comes out" in conference committee where final decisions on the bill would be made. In the past few years, money the House has put in for Yucca Mountain has been excised in the Senate,

Reid said likewise the latest bid to revive Yucca Mountain "will go nowhere,"

"Republicans need to come up with a new playbook," Reid said in a statement. "Yucca Mountain is dead and it is time for everyone to move on and develop a safe way to manage our nuclear waste."

The House bill contains \$150 million for Energy Department nuclear waste activities that Simpson said is intended to be spent mostly on Yucca.

Additionally, the bill would allocate \$55 million for the Nuclear Regulatory Commission to continue project licensing.

The NRC is under court order to continue working on Yucca matters but only until its present funding runs out, which is expected by next year.

### **GAO Report: Enhanced Transparency Could Clarify Costs, Market Impact, Risk, and Legal Authority to Conduct Future Uranium Transactions**

Government Accountability Office

May 9, 2014

[LINK](#)

The Department of Energy (DOE) undertook four uranium transactions involving USEC Inc. (USEC) in 2012 and 2013. These transactions served to provide the company with operating cash. According to DOE, the department benefited from these transactions in two ways: (1) by ensuring availability of domestic low-enriched uranium (LEU) for the production of tritium, a key radioactive isotope used to enhance the power of nuclear weapons, and (2) by supporting USEC's development of next generation enrichment technology. Three of the four transactions involved transferring ownership of depleted uranium tails (tails), a product of the enrichment process. Tails are generally considered to be an environmental liability, but can have value as an asset when uranium market conditions make tails re-enrichment economical in lieu of enriching natural uranium. In two transactions, DOE accepted ownership of tails, along with liability for disposal costs, in exchange for other benefits. In another transaction, DOE transferred ownership of tails to a third party to be re-enriched by USEC. The fourth transaction involved the transfer of uranium material other than tails.

GAO identified legal concerns with all four of DOE's uranium transactions. For the largest transaction--DOE's transfer of tails to a third party for re-enrichment--GAO believes that DOE likely did not have authority to transfer tails under restrictions imposed by the USEC Privatization Act. DOE disagreed, citing its authority to conduct this transaction under the Atomic Energy Act. Even if DOE had such authority, GAO found that it did not meet the Act's requirement to charge a price for the tails because it transferred them without charging any price at all. In another transaction, DOE transferred ownership of uranium material that it previously obtained to meet national security needs, without obtaining a presidential determination that the uranium material was no longer necessary for

national security needs, as GAO found is required by the USEC Privatization Act.

GAO identified issues concerning DOE's methods for valuing tails and whether DOE received reasonable compensation with respect to its largest transaction. DOE does not have guidance for determining the value of tails when they are treated as an asset in a transaction, and as a result, the estimated value of the tails ranged from \$0 to \$300 million. DOE decided that the tails had no value in this transaction, and therefore, the transaction had no cost to the department. But, in other instances, DOE has determined that tails have value and has sought to sell its tails. Without consistent guidance for how to value its tails for transactions, DOE cannot ensure the government will be reasonably compensated, as required if, as DOE asserts, the Atomic Energy Act applies.

DOE contracted for two studies in 2012 and 2013 to support required determinations by the Secretary of Energy that certain uranium transfers would not have an adverse material impact on the domestic uranium market and posted these studies on its website. However, DOE did not take steps outlined in its contracts or in departmental quality assurance guidance to ensure the quality of these studies. For example, the studies provided only limited detail about their methodology and data sources; however, DOE's quality assurance guidance states that DOE information disseminated to the public should contain such information. GAO also identified shortcomings in the studies that raise questions about the definitiveness of the studies' conclusions.

### **25 years on at America's most contaminated nuclear waste site**

BBC

June 10, 2014

[LINK](#)

When Susan Leckband moved to eastern Washington state to take a job 30 years ago, radioactive contamination was not on her mind.

"I loved my job," she says.

But it was only a handful of years before the place she worked, Hanford, turned from a plutonium production complex to a massive environmental clean-up site.

For Leckband, the question is not about the past, but the progress made on cleaning contaminated buildings and soil.

"It's important to the entire Pacific North-West... the food crops, the salmon, the Indian tribes - it's a huge, huge obligation," she says.

Situated on a plain along the Columbia River, the Hanford site is where the US produced plutonium used in the Manhattan Project, for the bomb that destroyed Nagasaki, and for a Cold War stockpile.

Despite being a professional place of destruction, Hanford was teeming with life by the end of World War Two.

In her book *Plutopia*, historian Kate Brown describes how Richland, the largest town near the site, was one of the first "nuclear" communities, a structured suburb for Hanford workers with high security clearances.

Working at Hanford, even when many didn't know the full extent of what was being produced, was considered patriotic.

Sixty years later, Hanford is in the midst of the US's largest nuclear waste clean-up operation, which has already cost \$40bn (£24bn) and is expected to continue for decades.

And despite some progress, the site's most complicated and potentially dangerous waste issue - 56 million gallons (255 million litres) of high-level radioactive waste sitting inside tanks at the centre of the site - is facing more problems.

In the mid-1980s, activists and reporters began to unwind Hanford's history, detailing safety lapses and environmental hazards across the site.

"They made the plutonium, but they did it in a very dirty manner," says Tom Carpenter, director of watchdog organisation Hanford Challenge.

By 1989, Hanford was no longer a bomb factory, but a site in need of serious clean-up.

Twenty-five years later, the region around Hanford is once again booming. Clean-up has taken the place of the business of plutonium production.

The US Department of Energy (DOE), which manages the clean-up effort as part of an agreement with Washington state and the Environmental Protection Agency (EPA), counts among its accomplishments at Hanford seven reactors cocooned for future dismantling, nine billion gallons of treated groundwater, and hundreds of cleaned or demolished buildings.

"It's staggering how much material we've moved," says Dennis Faulk, a Hanford project manager with the Environmental Protection Agency.

But critics of the way Hanford has been managed are worried that contamination could become worse.

In February, Oregon Senator Ron Wyden accused the DOE of a "never-ending pattern of failing to disclose what it actually knows about conditions at Hanford".

Wyden is most recently concerned about the tanks holding by-products of plutonium production, buried just below the surface at the centre of the site.

The original containers, single-shell tanks built in the 1940s and 1950s, had already leaked at least 1 million gallons of liquid waste into the ground. Hanford officials built double-shell tanks in the 1970s and 1980s and began transferring the radioactive waste into the newer vessels.

But in October 2012, the energy department announced one of the

double-shell tanks was leaking into the space between the two shells. Waste in that tank has not entered the environment.

Wyden released an engineering review that said six other double-shells had similar construction flaws. He accused the agency of hiding what they knew, as the report had been made months after the initial leak announcement, but no other warnings from the DOE had followed.

Meanwhile, Hanford officials have recently submitted a plan to start emptying the leaking tank in two years.

Then, in late March, two dozen workers fell ill because of chemical vapours near the tanks. Workers again noticed vapours around the tanks in May.

Tom Fletcher, assistant manager of Hanford's tank farms, told the BBC in February that what Senator Wyden released was "one data point" and that visual inspections on the six tanks conducted after that report showed no abnormalities.

The composition of the waste in the leaking tank makes it more likely to corrode, Fletcher says. No other double-shell tank holds such a mixture and full inspections on the tanks will now be done more frequently,

But in general, the double-shells must do their job for several more decades until a waste treatment plant - currently under construction - immobilises in glass all 56 million gallons of waste in the tanks.

The treatment plant was scheduled to become operational by 2019, but construction has been slowed or entirely halted on two key parts of the plant for additional testing.

Once the treatment plant goes into operation, parts of it must be run entirely by robotics because of the high radioactivity of the waste. Regulators call it a "black-box" system.

Hanford Challenge represents two whistleblowers, Walt Tamosaitis and Donna Busche, who say they have been punished for expressing concerns about the treatment plant's design.

Carpenter says the whistleblowers are speaking up now because once the plant begins operations, there will be no chance to fix potentially dangerous errors.

Both Tamosaitis and Busche have been fired by URS, one of the contractors at Hanford.

The energy department says it has asked its inspector general to "review the circumstances surrounding the termination of Ms Busche", a safety manager who alleged continuing harassment since she first brought up concerns in 2011.

Meanwhile the waste remains in the aging tanks.

Tom Fletcher said when the time comes to start retrieving the waste for the treatment plant, Hanford will be ready.

"We have those technologies now," he says, explaining that the leaking double-shell tank would be treated much the same way the single-shell tanks currently are.

Hanford and its contractors are also facing pressure from a source closer to home.

In March Washington Governor Jay Inslee threatened legal action if the energy department did not accept a new state proposal on cleaning up the waste tanks or develop a new one with "sufficient detail".

Inslee wants to create a series of deadlines to solve the technical problems at the waste plant, making sure it begins working by 2028. And the Washington governor also wants Hanford to build new double-shell tanks, a proposal that energy officials have heard before, but not adopted.

Now retired, Susan Leckband continues to serve on Hanford Communities, an advisory board for the clean-up effort, but she is frustrated by the slow pace.

What's been done already, she says, is low-hanging fruit.

"Can we do a better job?" she says.

"Absolutely."

