

# ECA Update: Monday, July 27th, 2015



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## **Reminder: DOE National Cleanup Workshop**

*Please join us for the first Department of Energy National Cleanup Workshop*

**September 29th-30th, 2015  
Washington, D.C.**

The Energy Communities Alliance (ECA), in cooperation with the Department of Energy (DOE) and the Energy Facility Contractors Group (EFCOG) will hold the first DOE National Cleanup Workshop Sept. 29th-30th in Washington, D.C. The workshop will bring together senior DOE executives, officials from DOE

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## **Events of Interest**

[SRS CAB Meeting](#)

July 27th-28th, 2015

[NNMCAB Meeting](#)

July 29th, 2015

[Nuclear Fuel Cycle Legislation Hearing](#)

August 4th, 2015

[DOE National](#)

sites, industry executives, and other stakeholders to discuss the progress DOE Office of Environmental Management is making to address the environmental legacy of the Manhattan Project and Cold War-era U.S. nuclear weapons program. Topics to be discussed include major cleanup successes planned over the next two years, improving contract and project management, efforts to develop new cleanup technologies, and more.

As the largest environmental cleanup program in the world, EM has been charged with the responsibility of cleaning 107 sites across the country, totaling a combined area equal to that of Rhode Island and Delaware.

**If you are interested in being a sponsor or would like to request media credentials, please contact Ivana Brancaccio by email at [Ivana@energyca.org](mailto:Ivana@energyca.org), or by phone at (202) 828-2410.**

**If you have any questions with your registration, please contact Sharon Worley by email at [sharon.worley@energyca.org](mailto:sharon.worley@energyca.org), or by phone at (202) 828-2413.**

**REGISTRATION:** To register for the workshop, please click [here](#).

## **REMINDER: Second Annual Intermountain Energy Summit**

**August 18th-19th, 2015  
Idaho Falls, ID**

The second annual Intermountain Energy Summit will be held August 18th-19th, 2015 in Idaho Falls, ID. Featured speakers will include Idaho Sen. James Risch, Rep. Mike Simpson, who chairs the House Energy and Water Appropriations Subcommittee, Principal Deputy Assistant Secretary for Nuclear Energy, John Kotek, and a host of other experts and stakeholders throughout government industry and academia. More information on the summit and instructions for registration can be found online [here](#).

## **DOE says no threat of detonation in plutonium storage drums**

*Knoxnews.com*

## **Cleanup Workshop**

**September 29th-30th,  
2015**

*Washington, D.C.*

July 24th, 2015

[LINK](#)

OAK RIDGE — The U.S. Department of Energy has ruled out the threat of detonation in a “small population” of drums containing plutonium, a high-hazard radioactive material, and determined the drums are safe for long-term storage.

The DOE said contractors are now assessing the best way to repackage and dispose of the waste drums that have been stored at Oak Ridge National Laboratory for three decades.

An initial evaluation last year indicated the drums had “the potential to generate hydrogen and oxygen gases higher than anticipated,” thus raising concerns about a possible detonation.

However, Ben Williams, a spokesman in the DOE’s Office of Environmental Management in Oak Ridge, said a completed safety analysis — which looked at the potential risks — “revealed that the containers and current configuration” are safe for long-term storage.

The plutonium was generated during operations at the DOE’s Savannah River Site in South Carolina. The containers were shipped to ORNL in the 1980s for repackaging and long-term storage, and they’ve been in Oak Ridge ever since, apparently in their original containers.

The storage drums have various layers of containment, according to the federal agency.

There is reportedly a small quantity of plutonium oxide and plutonium metal inside each drum’s innermost component — called a “pipe nipple.” But a DOE spokesman would not reveal the exact number of drums, specify the quantity of plutonium or confirm the isotopes involved.

“Currently, we are conducting additional analysis to determine the safest methods to repackage and dispose of the waste,” Williams said.

The containers will remain stored at the Melton Valley Solid Waste Storage Facility and the Transuranic Waste Processing Center in Oak Ridge “until the additional analysis is complete and work is scheduled,” the federal spokesman said.

That work, he said, is likely to be done in fiscal year 2017, which

begins Oct. 1, 2016.

Williams confirmed the plan is to ultimately ship the materials to the Waste Isolation Pilot Plant in New Mexico.

### **Judge wants deadlines on Hanford cleanup**

*The Associated Press, The Register-Guard*

July 25<sup>th</sup>, 2015

[LINK](#)

RICHLAND, Wash. — Specific requirements and deadlines are needed to hold the U.S. Department of Energy accountable in the cleanup at the Hanford Nuclear Reservation, a federal judge told state and federal officials on Thursday.

During a court hearing, U.S. District Judge Rosanna Malouf Peterson said she will appoint a panel of experts to help her with the technical and scientific issues in more than 6,000 pages of documents, according to the Tri-City Herald. She gave the energy department and the state 21 days to each appoint a representative to the panel.

The state of Washington has submitted a list of deadlines for emptying radioactive waste from certain leak-prone waste tanks and getting a plant built to treat the waste. Federal officials wanted to delay deadlines until technical issues were resolved.

The judge said she'll reject the DOE's proposed plan for the court-ordered consent decree and lean closer to the state's proposal.

Malouf Peterson made only brief remarks Thursday after listening to arguments from DOE and the states of Washington and Oregon. She said she will issue a written opinion.

Her ruling will focus on whether the proposed amendments would resolve problems caused by DOE's inability to meet deadlines agreed to in 2010 and the issue of holding DOE accountable rather than focusing on specific deadlines.

Washington Assistant Attorney General Andrew Fitz said the state's job as a Hanford regulator is to hold DOE accountable, but the history of trying to get tank waste treated for disposal is one of moving deadlines and delays.

The 2010 consent decree resolved a lawsuit filed by the state in

2008 when it became apparent that DOE could not meet deadlines. The consent decree set new deadlines to be enforced by the court. But now most of the remaining deadlines in the consent decree are at serious risk of being missed by DOE.

“Effectively, we are back where we were when we filed the lawsuit,” Fitz said.

The DOE’s plan is to regularly update the state on its progress, but nothing ensures that progress will be made or requires that technical issues be resolved, Fitz said.

Kenneth Amaditz, a lead attorney for the U.S. Department of Justice, countered that “technical issues cannot be predictably resolved by certain dates.”

Resolution can be lengthy and expensive, Amaditz said.

The judge’s choice is to establish deadlines based on guesses or wait until there is enough information to make them meaningful, he said. It’s impossible to know now if extensive work may be needed, such as changing out tanks in the plant, redoing ventilation systems or pulling piping out of concrete to resolve technical issues, he said.

### **Bill would strengthen Nevada hand against Yucca**

*Las Vegas Review-Journal*

July 23<sup>rd</sup>, 2015

[LINK](#)

WASHINGTON — A new bill by Nevada senators seeks to strengthen the state's hand in rejecting nuclear waste burial at Yucca Mountain.

Sens. Harry Reid and Dean Heller introduced the bill Wednesday that would require the governor and local counties to sign off before the government could resume activities at the mothballed site 100 miles northwest of Las Vegas.

It echoes a bill introduced in March that would prohibit the Yucca site from being licensed by the Nuclear Regulatory Commission without written consent from the Nevada governor.

The new version aims to put an even earlier thumb on efforts to revive the nuclear waste repository that the Obama administration

stopped funding in 2010.

The Nevada senators submitted the bill without comment ahead of an Aug. 4 nuclear waste hearing scheduled by the Senate Energy and Natural Resources Committee.

At the hearing, senators will be studying a bill to revamp the government's nuclear waste program, including adopting a policy that calls for the government to obtain the consent of states before they can be considered for high-level nuclear waste facilities.

Nevada officials have expressed concerns about the bill, saying it appears to contain loopholes that would still allow Yucca Mountain to be considered.

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## **Obama's Second Blow to a Nuclear Waste Solution**

*White House Chronicle*

July 26th, 2015

[LINK](#)

When the Obama administration came into power, one of its first actions was to end work on the Yucca Mountain nuclear waste repository in Nevada. In so doing, it delivered a shuddering blow to the U.S. nuclear industry, trashing the project when it was nearly ready to open. The cost to taxpayers was about \$15 billion.

Now the administration is going through the motions to suspend another costly nuclear waste investment when it is about 67 percent complete. Money expended: \$4.5 billion. Shutdown cost: \$1 billion.

The object of its latest volte face is the Mixed Oxide Fuel Fabrication Facility (MFFF) on the Department of Energy's Savannah River site in South Carolina. Work started on the facility in 2007, with a 2016 startup envisaged.

But unlike Yucca Mountain, few people outside of the nuclear industry know about the genesis and purpose of the MFFF project.

The project was initiated as a result of a 2000 agreement with the Russians, later amended, in which both countries agreed to dispose

of no less than 34 metric tons of excess weapons-grade plutonium — the transuranic element that is the key component of a modern nuclear weapon, and remains radioactive essentially forever.

The DOE's plan was for the facility to mix the plutonium with uranium to create a fuel for civil nuclear reactors to produce electricity. This recycling technology, developed in the United States originally, has been used in France since 1995.

The DOE has not yet taken a wrecking ball to the MFFF, but it is taking the first steps toward demolition. On June 25, the DOE issued a press release that the industry read as a precursor to a death warrant.

The department announced that it was creating a "Red Team," headed by Thom Mason, director of the Oak Ridge National Laboratory in Oak Ridge, Tenn., to review "plutonium disposition options and make recommendations."

The DOE statement said the team would "assess the MOX [mixed oxide] fuel approach, the downblending and disposal approach, and any other approaches the team deems feasible and cost effective."

Industry sources say the choice is between the MOX approach and so-called downblending. In that application, the plutonium is not burned up but is spiked and mixed with a modifier that makes it unusable in weapons. Then it would be disposed either in the Waste Isolation Pilot Plant in Carlsbad, N.M., or in a new repository, if one is commissioned.

The American Association for the Advancement of Science has been pushing the downblending option. But it is using numbers that many believe to be extremely speculative. They come from a private consulting firm hired by the DOE, Aerospace Corporation.

The first number is that the life-cycle cost of the MFFF would be \$30 billion, while the life-cycle cost for downblending would be only \$9 billion. These numbers are contested by the contractor building the facility, a joint venture between the construction firm Chicago Bridge & Iron Company and the French nuclear technology giant Areva. They point out that plutonium has never been downblended and that the WIPP in New Mexico has had its own problems. On Feb. 5, 2014, the plant closed after a salt truck caught fire; there was an unrelated radiological release nine days later. The plant is still closed.

It is believed that Secretary of Energy Ernest Moniz favors the MFFF approach as a permanent and scientifically attractive solution, rather than burying the plutonium in New Mexico or elsewhere. However, he may be overruled by the White House and the military chiefs, who know that they are going to have to raise money on a huge scale for nuclear weapons modernization, in light of the deteriorated relationship with Russia and China's continuing military buildup.

If the MFFF is canceled, it will join a long list of nuclear projects that the government has ordered up and canceled later, often with a huge waste of public money. Another negative is the wastage of engineering talent. Families move to sites, buy houses and send their children to local schools. Then come the pink slips and years of demanding engineering effort are nixed by policy, politics and general incoherence in Washington.

### **Former LANL chemist blogs on all things nuclear**

*The Santa Fe New Mexican*

July 25th, 2015

[LINK](#)

One Santa Fean paying close attention to the historic nuclear deal with Iran is Cheryl Rofer, a retired Los Alamos National Laboratory chemist who has worked on environmental cleanup projects in Estonia and Kazakhstan.

On Nuclear Diner, the blog she writes with two other people, Rofer posts her own views about Iran agreeing to curb its nuclear program in return for the end of United Nations sanctions, as well as topics such as civilian power reactors, nuclear weapons and nonproliferation. "I'm trying to write things other people aren't writing that I think important," she said in a recent interview.

Sometimes, she admits, she gets into the "wonky weeds," but Nuclear Diner's goal is to "give explanations that help people make sense of what they are seeing in the news."

Last Sunday was an example of such a post. It addressed concerns about the verification provisions of the Iran nuclear deal.

"Not mentioned is that all the parties to the agreement have access to highly detailed photographs of the earth's surface, updated frequently," she wrote. "Those photos are part of what the government calls National Technical Means. In the United States, it is run by the National Reconnaissance Office.

“But there’s yet another layer of verification. Satellite photos are easily available to the public. Look up your house on Google Earth or Google Maps. It’s fun, and a lot of people do it.”

The International Atomic Energy Agency inspectors will have access to Iranian uranium mines and mills, processing facilities, and centrifuge factories, she pointed out. “All of these facilities can also be watched from above. Mines are easier to see than centrifuge factories, but the centrifuge factories have additional verification measures to open up their visibility.”

She writes, “The [Joint Comprehensive Plan of Action] verification is tight enough that, in order to make a bomb, Iran would have to open up a parallel chain from mine to centrifuge. Only one link in that chain, one facility, needs to be uncovered.”

Rofer, 71, grew up in northern New Jersey in a family that believed in learning. “Anything I wanted to do was fine with them,” she said. As a kid, Rofer knew she would be some kind of scientist — after she determined there were “other things besides being a fireman.”

She left Ripon College in Wisconsin after her junior year to pursue a master’s degree in chemistry at the University of California, Berkeley. It was the 1960s, and out of 100 new graduate students, she said, only six were women. They were treated equally, she recalled, but “Nobody said, ‘Cheryl, you really should go on for a Ph.D.’”

After receiving her degree, Rofer got a job in 1965 as a technical writer in the reactor division at Los Alamos National Laboratory where her husband at the time was working as a materials engineer. She worked there for 35 years in different capacities, including in laser isotope separation, supercritical water oxidation and environmental cleanup.

In the 1990s, Rofer worked with the Estonian environmental minister to clean up a tailings pond on the Gulf of Finland. A former yellowcake plant that was now processing rare earths — chemical elements found in the Earth’s crust that are vital to many modern technologies, including consumer electronics — was causing concern in the region.

She also worked on a proposal for the removal of the surface contamination at Semipalatinsk, a nuclear test site in Kazakhstan.

After retiring from the lab in 2001, Rofer joined with two retired State Department employees, Pat Kushlis and Pat Sharpe, to start Whirled View, a blog where people could talk about international affairs. In 2011, she joined with Susan Voss, a nuclear engineer, and Molly Cernicek, an international relations entrepreneur, both of whom have worked at the lab, to launch Nuclear Diner.

Voss has worked on a space nuclear reactor with the Russians, and Cernicek is starting up a laser building plant in Russia.

“We think nuclear weapons need to be controlled,” Rofer said. “And because we’ve worked in other countries, we see the opportunity of working with them.”

She said she supports the new Iran deal, and “I agree with Obama that the pathways [for Iran to build nuclear weapons] are cut off. ... Overall, it’s very good.”

“The inspection protocol,” she said, means that “the international inspectorate is going to be inspecting all the way from mines through centrifuge manufacturing. They will see if Iran is trying to break out.”

While “Iran does have a history of concealing plants and not totally coming clean on some experiments,” it has been adhering to the joint plan for action for the last year, she noted, and it has “given up so much in this. That suggests to me they really don’t have the desire to build a nuclear weapon.”

The U.S. has signed agreements with other countries “without knowing the entire history of what they did,” she said. “It’s the future that’s more important,” and the deal “really nails [that] down.”

Some of the doubters wanted to keep Iran from developing all forms of nuclear power, but Rofer pointed out that the Nuclear Nonproliferation Treaty gives nations the right to peaceful uses of nuclear power.

Moreover, as the president pointed out, there is no international consensus on a complete ban.

“It would be nice if Iran had no enrichment program, but that’s not going to happen,” Rofer said.

And she disputes claims that the Iranians would be able to hide activities not allowed under the deal. “We’re looking at them all the time. If something happened, the NGOs, governments, a gaggle of people across the Internet are going to notice,” she said.

The deal was endorsed Monday by the U.N. Security Council and the European Union foreign ministers. Congress, where many Republicans oppose it, has 60 days to consider the deal.

Because she finds international affairs fascinating, Rofer spends four hours or more a day on her computer, researching related issues and writing blog posts. But she’s also a trustee at her alma mater, is interested in photography, and a few years ago took up piano again and is now mastering Bach’s Two-Part Inventions.

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