

## **ECA Update February 16, 2016**

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**23**

Senate Armed Services  
Subcommittee on  
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Hearing

**"Department of  
Energy Atomic  
Energy  
Defense Activities and  
Program"**

(2:30 PM)

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**March 2016**

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**US Must Pay Entergy \$49.4M For Nuclear Fuel Storage Costs**

Law 360

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System Fuels Inc. et al. v. United States, case number 1:03-cv-02621, in the U.S. Court of Federal Claims.

Law360, New York (February 12, 2016, 10:35 PM ET) -- The U.S. Court of Federal Claims has said the federal government owes \$49.4 million to three Entergy Corp. units for not fulfilling its contractual obligation to dispose of radioactive waste.

System Fuels Inc., Entergy Louisiana Inc. and Entergy Louisiana LLC sued the government in 2003 to recover damages allegedly caused by the Department of Energy's partial breach of its "unconditional obligation" to dispose of spent nuclear fuel and high-level nuclear waste generated by the Entergy

**03**

Senate Energy and Natural Resources Hearing  
**"Hearing to examine the Department of Energy's budget request for Fiscal Year 2017"**  
(10:00 AM)  
[Visit website.](#)

**August 2016**

**9-10**

Third Annual Intermountain Energy Summit  
Idaho Falls, ID  
[Visit website.](#)

**September 2016**

**14-15**

DOE National Cleanup Workshop  
Hilton Alexandria Mark Center  
Alexandria, VA  
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Louisiana-owned Waterford Steam Electric Generating Station Unit 3 nuclear power plant. System Fuels is contracted to dispose of that waste.

In an opinion issued on Jan. 31 but publicly released Wednesday, U.S. Court of Federal Claims Judge Mary Ellen Coster Williams said the companies are owed \$49.4 million, a far cry from the \$80.1 million they were seeking. The government had challenged about \$33 million of what the companies sought, including charges for things like a crane upgrade, plant modifications and the cost of loading spent nuclear fuel into dry storage casks.

Judge Williams agreed with the government on most of its challenges, finding many of the charges would have occurred outside of the government's breach of contract.

The groundwork for the government's liability was laid years ago when the D.C. Circuit in 1997 held that the DOE had an unconditional obligation to accept spent nuclear fuel by 1998.

The D.C. Circuit's order did not require specific performance or impose any contractual remedies, which was under the jurisdiction of the U.S. Court of Federal Claims. The Federal Circuit later afforded this ruling res judicata effect on the issue of liability, Judge Williams said in her ruling.

"On Aug. 31, 2000, the Federal Circuit held that the government breached every standard contract upon failure to commence the collection of spent nuclear fuel on Jan. 31, 1998. This failure to begin collecting spent nuclear fuel in 1998 constitutes a partial breach of the standard contract," the judge said.

The standard contract to which she refers is based on Section 302 of the Nuclear Waste Policy Act. Pursuant to that section, utilities would enter into a standard contract with the U.S. government acting through the DOE: In return for fees assessed against the utilities contracting with DOE for disposal of spent nuclear fuel, Congress imposed on DOE the unconditional

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obligation to take title to, transport and dispose of the spent nuclear fuel generated by these utilities no later than Jan. 31, 1998.

Despite the court rulings, the government repeatedly pushed back the date it would collect and dispose of spent nuclear fuel, and in 2010, it announced that the program to construct a federal repository for spent nuclear fuel disposal at Yucca Mountain was terminated.

“The government continued to collect the fees required by the standard contract from the utilities until Nov. 19, 2013, when the D.C. Circuit ordered the secretary of energy to submit a proposal to Congress to change the fee to zero,” Judge Williams said.

The judge said the government plans to accept spent nuclear fuel into a repository in 2048.

Entergy and the government did not immediately respond to requests for comment Friday.

### **Feds seek borehole test for potential hot nuke waste burial**

AP: Star Tribune

February 14, 2016

[LINK](#)

LUBBOCK, Texas — The federal government plans to spend \$80 million assessing whether its hottest nuclear waste can be stored in 3-mile-deep holes, a project that could provide an alternative strategy to a Nevada repository plan that was halted in 2010.

The five-year borehole project was tentatively slated to start later this year on state-owned land in rural North Dakota, but it has already been met with opposition from state and local leaders who want more time to review whether the plan poses any public danger.

"It should be a statewide decision," said Jeff Zent, spokesman for North Dakota Gov. Jack Dalrymple, adding that a resolution from state legislators is a possibility.

The Department of Energy wants to conduct its work just south of the Canadian border on 20 acres near Rugby, North Dakota — in part because it's in a rural area not prone to earthquakes — but is prepared to look elsewhere if a deal can't be reached. Some sites in West Texas and New Mexico have expressed interest in becoming interim sites for above-ground nuclear waste storage, but it's not clear if they would be considered for borehole technology.

Project leaders say the research will require months of drilling deep into the earth but will not involve any nuclear waste. Instead, dummy canisters without radioactive material would be used in the project's third and final phase.

"It's to confirm the viability and concept," said Robert J. MacKinnon, a technical manager on the project at DOE's Sandia National Laboratories in Albuquerque, New Mexico.

The research team will look at deep rock to check its water permeability, stability, geothermal characteristics and seismic activity — a central concern with burying the hot radioactive waste deep underground.

If nearby earthquakes occur, the crystalline rock could slip and allow for water and radioactive material to migrate away from the site, said Stephen Hickman, director of the U.S. Geological Survey's Earthquake Science Center.

Rugby site has very little seismic activity, he said.

If the technology proves successful and the government moves forward with deep borehole disposal, there must be no fracking-related injection wells in the vicinity.

North Dakota was one of the country's hot spots for fracking before the price of oil began to drop. Most of the fracking occurred in the state's western half, and there is no fracking done within about 75 miles of the project site near Rugby, which is in the eastern half of the state.

"That would also create a problem," Hickman said of the injection wells, which some research has linked to seismic activity.

Currently, high-level radioactive waste — both from government sources and utilities' nuclear power plants — is without a final burial site. The waste at power plants is stored on site in pools of water or in heavily fortified casks, while the government's waste remains at its research labs.

The Department of Energy said even if deep borehole disposal were to be greenlit and become reality, it would still want to construct a traditional geologic repository that could replace the proposed Yucca Mountain site.

But the 16,000-foot-deep boreholes could be used for high-level radioactive waste from the department's decades of nuclear work originally slated to go to Yucca, including nearly 2,000 canisters of cesium and strontium now being stored in water at the department's Hanford Site in Washington state.

An independent federal oversight agency charged with examining how nuclear waste is handled has concerns the project will distract the department from pursuing another project similar to Yucca.

And state and local officials aren't gung-ho about the \$35 million borehole project's first phase being in their backyard.

Duane Johnston is on the Pierce County Commission. He said he doesn't entirely trust the government.

"Sure it's an experimental, we know that," Johnston said. "But it could be suitable for nuclear waste. That's what bothers us. You never know about the government."

Earlier this month, Pierce County officials discussed the issue with the governor and state attorney general, with the county commission ultimately placing a moratorium on the project. The commission says it and the county's planning board must agree before the freeze is lifted.

The county is holding a public hearing Tuesday in Rugby, a community of about 3,000 people 15 miles north of the site.

DOE spokesman Bartlett Jackson said options for alternative locations would be explored if the Rugby site isn't available.

### **Agency: Oak Ridge nuclear plant's lithium supply good through 2028**

AP: WBBJTV

February 2016

[LINK](#)

The National Nuclear Security Administration says it has identified "other sources" of purified lithium for use in refurbishing nuclear warheads.

Nuclear Uranium AtomicThe Knoxville News Sentinel ([bit.ly/1Qh7tHZ](http://bit.ly/1Qh7tHZ)) reports the update could alleviate concerns that the Y-12 nuclear weapons plant in Tennessee could run out of the material as early as 2018.

Brigadier General Stephen L. Davis, the NNSA's acting deputy administrator for defense programs, says officials are now projecting there's enough lithium to get through 2028 without any concern.

Separate government reports in 2015 raised questions about Y-12's ability to meet its future lithium needs until a planned production facility comes online in the 2025 time frame.

The Oak Ridge plant in Tennessee is reported to be the only facility in the U.S. nuclear weapons complex that can produce lithium materials for weapons use.

### **Spent fuel arrives at ORNL; research under way**

Knox Blogs

February 14, 2016

[LINK](#)

Spent fuel rods from a commercial reactor in Virginia will be studied in hot cells at ORNL's Irradiated Fuels Examination Laboratory.

The Department of Energy has confirmed that "research quantities" of high-burn-up spent nuclear fuel from the North Anna (Va.) Power Station have arrived at Oak Ridge National Laboratory.

Claire Sinclair, a spokeswoman at DOE's Office of Science in Oak Ridge, provided a brief response to questions about the project.

"ORNL is in receipt of research quantities of high burn up commercial fuel from the North Anna Power Station," Sinclair said via email. She did not specify when the radioactive materials arrived at the DOE lab or say how much was in the shipment.

ORNL Director Thom Mason last year said the initial shipment would involve 25 spent fuel rods to be characterized and then analyzed for how they age over time — information that will be needed to prepare for eventual disposition of like materials.

As regards the Oak Ridge project, Sinclair said, “The research has begun and will involve detailed non-destructive and destructive examination and other analyses.”

Last fall, a number of activist groups expressed concern about the proposed effort, suggesting that Oak Ridge could end up keeping the highly radioactive materials indefinitely.

When the project gained public attention in November 2015, Ralph Hutchison of the Oak Ridge Environmental Peace Alliance said he thought the initial shipment would be “just the camel’s nose.”

Hutchison said, “What most concerns us is the second shipment. This is some of the nastiest waste created by the nuclear industry. And since there is no approved disposal facility or plan, it’s safe to say if it comes to Oak Ridge, it will never leave.”

Mason did not respond to questions last week, but he reiterated that earlier reports that ORNL could end up receiving 20 tons of spent fuel were way out of line. He said that is far beyond the lab’s capabilities.

Last year, the lab director noted that it was possible ORNL would later receive some additional spent fuel rods for comparison purposes, but indicated they would be relatively small quantities.

### **Budget proposal seeks more money for Savannah River Site liquid waste work**

Aiken Standard

February 11, 2016

[LINK](#)

The Savannah River Site is in line to receive \$90 million more than current funding levels to continue treating high level radioactive liquid waste stored in more than 40 tanks on site.

President Barack Obama's budget proposal for the Department of Energy calls for \$645.3 million for the tank waste removal and grouting – an increase from the \$554.8 million currently allotted for the project.

Overall, the site would receive an increase of \$111 million.

“From a budget standpoint, we all think this a good budget for us,” said SRS spokesman Jim Giusti. “If this makes it through Congress with no changes, we’ll be in a position to make some significant progress.”

The Energy Department expects liquid waste contractor, Savannah River Remediation, or SRR, to produce about 100 canisters of waste by processing the material through the site's Defense Waste Processing Facility – a facility that converts the waste into a glassy, less-harmful state suitable for storage until a nuclear repository is identified.

The site's liquid waste program is essential to ridding South Carolina of about 36 million gallons of high level waste stored in 44 tanks, with one of those tanks nearing the end of its grouting stage.

Efforts to ramp up the processing of the waste include the upcoming completion of the site's Salt Waste Processing Facility. Current funding for the facility will be enough to finish construction this spring, SRS reported in January. The budget proposal is seeking \$160 million for startup and commissioning of the facility under Parsons, the salt waste contractor.

The facility will take the salt waste in the tanks, which accounts for about 90 percent of the total volume, and separate the cesium and actinide components from the salt solution. The cesium and actinide will then go to

the Defense Waste Processing Facility for processing and the salt solution will go to a separate unit for on-site disposal.

Though progress is being made with construction, the Salt Waste Processing Facility is still behind schedule after missing its startup deadline of Oct. 31, 2015 based on a 2006 agreement with the Energy Department and South Carolina Department of Health and Environmental Control. The two agencies have been discussing the issue since the missed deadline, with SCDHEC still in a position to impose fines of about \$170 million for the missed startup and other milestones.

SCDHEC spokesperson Jim Beasley said discussions are ongoing, but that the state agency is pleased with the increase in the budget proposal.

“The highly radioactive liquid waste in aging tanks is the single largest environmental threat in South Carolina and merits high funding priority from DOE,” Beasley said.

### **Obama’s budget proposal details plans for processing plutonium**

Aiken Standard

February 12, 2016

[LINK](#)

Continued efforts to gather 3.7 metric tons of plutonium from around the globe and process the material at the Savannah River Site is another major part of President Barack Obama’s budget request for the Department of Energy.

Released on Feb. 9, Obama’s budget request calls for \$1.45 billion for site activities, an increase of \$111 million from the current SRS appropriation.

In addition to upticks sought in the site’s liquid waste program, the budget also seeks \$56.4 million more for nuclear materials work.

The effort gained traction in December when the Department of Energy reported that the site's HB Line – a facility that assists H Canyon in the processing of nuclear materials – will increase production of plutonium oxide feedstock by diluting the plutonium stockpiles.

The material will be used to feed weapons-grade plutonium into the SRS Mixed Oxide Fuel Fabrication Facility, which will convert the plutonium into commercial nuclear fuel.

Obama's proposal also calls for the termination of the site's MOX facility. If that occurs, the downblending of the plutonium through H Canyon would still benefit the nuclear materials program by preparing the plutonium for disposal at the Waste Isolation Pilot Plant, or WIPP, in Carlsbad, New Mexico.

The DOE request states: "By the end of fiscal year 2023, complete operations for 3.7 MT of plutonium converted to oxide at Savannah River Site."

In addition to plutonium, the budget request maps out future processing of highly-enriched uranium from various countries, including the upcoming processing of Canadian uranium expected to occur this summer.

The proposal is calling for the complete disposition of 186 metric tons of highly-enriched uranium, or HEU, by the end of fiscal year 2030. However, that goal is contingent on several factors including the disposition paths for weapons containing HEU.

The proposal also seeks the continued processing of spent nuclear fuel in H Canyon and addressing safety issues outlined last year by a federal safety board.

Requested funding levels for other site activities include \$74.1 million for soil and water and \$134 million for site security and safeguards.

## **EM Releases WIPP Recovery Fact Sheet**

Los Alamos Daily Post

February 12, 2016

[LINK](#)

CARLSBAD — February 2016 marks two years since the underground fire and radiological release events forced the temporary closure of EM's Waste Isolation Pilot Plant (WIPP).

Since that time, progress in the recovery of the underground has included mine stability and habitability, initial panel closure, radiological risk remediation, and the addition of an interim ventilation system. Additionally, the site has made significant changes to all safety management programs.

Additionally, in response to investigations from the Accident Investigation Boards (AIB), the site has made significant changes to all safety management programs and is in the process of revising the Documented Safety Analysis (DSA) that establishes the safety envelope for all activities on the WIPP site.

As recovery actions at the site begin to wind down, DOE and NWP will begin a series of readiness activities necessary to ensure that all equipment, people and procedures have been thoroughly tested and are ready to resume plant operations in 2016. The readiness activities will culminate with separate contractor and DOE

Operational Readiness Reviews that must be passed before DOE and Regulators will give authorization to commence with waste emplacement.

As Energy Secretary Ernest Moniz indicated in the Feb. 9 budget rollout, "We really expect to get WIPP operating at the end of this year, resuming operations and ramping over a few years to full operations and then of course cleaning out the backlog that has been create by its shutdown for the last couple of years," Moniz said. "That is a very, very high priority."

WIPP remains an important component of the Department of Energy's Office of Environmental Management transuranic waste disposal program and has been key to their success in remediating 22 transuranic waste generator sites and significantly reducing DOE's footprint for legacy waste management.

For a more in-depth look at WIPP's recovery progress, please see the [WIPP Recovery Fact Sheet](#).

Next WIPP Town Hall Meeting Scheduled April 7.

The City of Carlsbad and DOE will co-host its quarterly Town Hall meeting featuring updates on WIPP recovery and restart activities. The meeting is scheduled for 5:30 p.m. Thursday, April 7 in Carlsbad City Council Chambers, 101 N. Halagueno St. Live streaming of the meeting can be seen at <http://new.livestream.com/rrv/>.

### **Idaho AG updates status of second nuclear research shipment proposed for INL**

Local News 8

February 11, 2016

[LINK](#)

There were two planned shipments of spent nuclear fuel rods - proposed to end up at the Idaho National Laboratory. The shipments are small, about 100 pounds each. The first shipment was denied and sent elsewhere because of a 1995 Idaho agreement with the U.S.

Department of Energy that no nuclear waste can be brought in the state, even though the shipments would be for research and bring extra money to Idaho.

Idaho Attorney General Lawrence Wasden was in Idaho Falls Thursday. He responded to questions about the status of the the second proposed shipment.

"My view is, both of these shipments should have been, should be at INL. That's where they ought to be in terms of what DOE is doing and the importance it has to the state and the importance it has to the country, but I have an obligation here and DOE is in breach of the 1995 agreement and they have to come and proffer a cure to that breach and that's what we're trying to get to," said Wasden.

Wasden said he sees direct communication with the Department of Energy and movement. He believes this is a very healthy sign for negotiations.

### **Frank Munger: Big cleanup costs big dollars in Oak Ridge**

Knox News

February 12, 2016

[LINK](#)

Earlier this week, the U.S. Department of Energy's Oak Ridge cleanup program achieved a milestone with the start of demolition of K-27 — the last of five gaseous diffusion plants at what once was the nation's largest uranium-enrichment complex — and the DOE said it expects to complete that job by the end of the calendar year.

That would be a big deal.

As with most DOE tasks, it depends on the availability of federal funding, and there's news on that front, too.

The Obama administration this week released its budget recommendations for fiscal year 2017, which begins Oct. 1, and the budget proposal includes \$391.4 million for Oak Ridge's environmental cleanup program.

Energy Secretary Ernest Moniz, in his budget news briefing, specifically mentioned the Oak Ridge demolition project and said the proposed spending level should be able to complete that and other environmental priorities.

The proposed Oak Ridge cleanup spending for FY 2017 is below the current year's appropriation of \$468 million, which was the highest in a few years. But it reportedly will meet the basic needs.

The request "supports continued progress" on the demolition of old uranium-processing buildings at the government site that's being converted to a giant-sized private industrial park, according to Mike Koentop, executive officer in the DOE's Oak Ridge Office of Environmental Management.

If approved, that level of funding would also allow DOE contractors to move forward with "efforts to address mercury at Y-12" and continue the processing of high-hazard transuranic waste, Koentop said in an email.

The DOE and environmental regulators have agreements in place to complete the Oak Ridge cleanup campaign by 2046. That date is predicated on an annual cleanup budget of about \$420 million and a lot of other factors — such as gaining approval for and construction of a new landfill to hold the vast tons of hazardous and radioactive wastes generated during cleanup projects.

Ken Rueter, president of UCOR, the DOE's cleanup manager, said the demolition of K-27 would produce about 10,000 truckloads of rubble and debris.

Most of the K-27 waste will go to the DOE's on-site landfill, but the most hazardous and radioactive materials are being shipped to a federal site in Nevada for disposal.

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In preparing K-27 for demolition, UCOR removed sections of the old processing equipment that contained significant deposits of enriched uranium or had elevated levels of radioactive technetium-99.

So far, there have been 159 shipments of K-27 materials sent to Nevada, a spokesman said.

There are more to come.

