# ECA Update:
# October 26, 2015

*In this update:*



**White House, GOP near two-year budget deal**
The Hill
October 26, 2015
LINK

Senior White House officials and congressional leaders are nearing a deal to raise the debt limit and set the budget for the next two years, say sources familiar with the talks.

The agreement is not yet final as negotiators still need to settle a dispute over controversial policy riders, but congressional leaders hope to announce something Monday evening, according to a Senate source. The deal would cover the 2016 and 2017 budget years.

White House budget director Shaun Donovan and legislative affairs director Katie Beirne Fallon are hammering out the package with staff representing Senate Majority Leader Mitch McConnell (R-Ky.), Speaker John Boehner (R-Ohio), Senate Democratic Leader Harry Reid (Nev.) and House Democratic Leader Nancy Pelosi (Calif.).

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## Events of Interest

**Manhattan Project Park MOA Signing Ceremony**
November 10
*Washington, DC*

2015 Intergovernmental Meeting
November 18-20
*New Orleans, LA*
Email: ivana@energyca.org for more information

## Calendar

National Energy

Legislation to raise the debt ceiling and fund the government are central to the deal, but the talks are also said to include legislation to fund highway and infrastructure construction and to renew the Export-Import Bank for one year.

“Hopefully we’re able to announce something this evening,” said a Senate source, who added the length of the agreement has yet to be finalized.

Boehner, who is set to leave Congress at the end of the week, said after he resigned the Speakership that he hoped to clear the decks for his successor.

The Treasury Department has set a Nov. 3 deadline for raising the nation's $18.1 trillion debt limit.

Lawmakers also face a Dec. 11 deadline to fund the government.

Members have been battling over how to fund the government and provide relief from a separate 2011 budget deal that introduced budget ceilings known as the sequester. Many Republicans have pushed to end the sequester for the Defense Department, while President Obama and Democrats want relief from the sequester for both defense and non-defense spending.

Highway funding must be renewed by the end of the week. The House and Senate have been battling to complete work on a bill that would provide six years of funding.

Authority for the Export Import Bank expired this summer. Suppoters in the House have backed a discharge petition to force a vote on renewing the bank, which is supported by the U.S. Chamber of Commerce and other business groups but opposed by many conservatives.

Senate Majority Leader Mitch McConnell (R-Ky.) has opposed a vote on a stand-alone Ex-Im reauthorization, but it could be possible to renew the bank as part of a broader measure.

The deal is also likely to prevent the double-digit premium hikes that would hit 8 million Medicare enrollees in 2016.

Averting the 52-percent premium increases has been a personal priority for Pelosi (D-Calif.), and could help win Democratic support for the package.

Laboratories Hearing
*Senate Energy and Water Development Appropriations Subcommittee*
October 28

National Day of Remembrance for Nuclear Weapons Program Workers
October 30

EMSSAB Oak Ridge Reservation Meeting
November 10

EMSSAB Nevada Meeting
November 10

EMSSAB Savannah River Site Meeting
November 16-17

NNMCAB Meeting
November 18

EMSSAB Paducah Meeting
November 19

She began talks on the topic with Boehner in mid-September. Staving off the increases is expected to cost about $7.5 billion, and Democratic aides have said Pelosi's office was quietly negotiating with Boehner on the offsets.

House GOP appropriators said they are also hearing rumblings of the two-year budget deal. Top House Republicans were expected to discuss a possible spending package at their weekly leadership meeting Monday afternoon.

**President Obama veto stalls bill that funds Savannah River Site MOX project**
The Aiken Standard
October 22, 2015
LINK

A final showdown to fund the MOX project and other items in the federal defense bill was set up Thursday when President Barack Obama vetoed the bill due to higher spending levels.

Congress sent the bill to Obama's desk Tuesday afternoon after passing it earlier in the month. The bill calls for $345 million for continued construction of the Savannah River Site's Mixed Oxide Fuel Fabrication Facility – a key part of the overall MOX mission to convert 34 metric tons of weapons-grade plutonium into nuclear fuel.

But Obama threatened to veto the $612 billion National Defense Authorization Act, or NDAA, weeks ago because the bill includes a "slush fund tactic that's an irresponsible way to fund our most basic national security priorities," said a White House press secretary.

The bill seeks an additional $38.3 billion to fight wars, a figure Obama has disagreed with since Day 1. The decision was met with disapproval from most Republicans, including U.S. Rep. Joe Wilson, R-S.C.

"I am very disappointed in the President's decision to veto the NDAA – a bill that provides for our service members and equips our troops to fight serious threats to American families, like the Islamic State," Wilson said. "I will continue to fight for every element in this year's NDAA, including our military funding, key reforms, and commitment to the Mixed Oxide Fuel Fabrication facility."

*What's next*

The MOX project will be impacted as a byproduct of the military debate if a Congressional override attempt is unsuccessful. The bill needs a two-thirds majority vote in both the House and the Senate for passage.

Wilson said he's optimistic about overriding the veto because the Senate voted 70-26 to pass the Conference Report – before it was sent to Obama's desk, giving them the required two-thirds majority if they vote the same for the override.

"We need 290 votes in the House, and I think it is possible. The NDAA is, and always has been, bipartisan legislation," Wilson said.

If an override is unsuccessful, funding will remain at 2015 levels and would not reform some of the policies Republicans were aiming to include, such as improvements to the military retirement system.

The MOX project is part of a nonproliferation agreement with Russia. Under the agreement, Russia is also expected to dispose of 34 metric tons of weapons-grade plutonium.

*Aerospace Study Part II*

Congress has had access to Part II of a highly-anticipated study on MOX alternatives since early October, but the study is still for "Official Use Only" and has not been made available for the general public or media.

Part I of a study conducted by Aerospace Corp. compares the MOX method of plutonium disposition to a downblending approach. The method would dilute the plutonium and dispose of it at a repository, most likely the Waste Isolation Pilot Plant in Carlsbad, New Mexico.

The study was released in May and Aerospace concluded that the lifecycle cost of MOX is $51 billion compared to a $17 billion downblending cost. The figures were disputed by MOX supporters including South Carolina congressmen and the MOX contractor.

Part II of the study looks at three other alternatives and was originally scheduled for a mid-September release.

Wilson's office said it received the study on Oct. 6 after the close of business. But the study is still under official use, said Leacy Burke, the communications director of the office.

"We are unable to comment about the report or its contents until the Department of Energy chooses to lift this restriction," Burke said.

One of the three alternatives, the use of fast reactors, is currently being used by Russia to hold up its end of the nonproliferation agreement.

The process would break the plutonium down into metal and be used to charge a casting furnace. The plutonium would then be blended with uranium and zirconium in the fast reactor, creating a metal fuel out of the weapons-grade material.

Another option is immobilization, and would include the construction of a "can-in canister" facility. Plutonium would be immobilized into either a ceramic or glass form, placed in a can and surrounded with high-level waste glass, or HLW glass, in a glass waste canister, which is why it is phrased, "can-in canister."

The final method is the use of a deep borehole and would consist of drilling boreholes into crystalline basement rock. Holes would run to 5,000 meters deep. Canisters would be placed into the lower 2,000 meters of the borehole, and the upper borehole would be sealed with compacted clay or cement.

**Hanford makes space for 2 million gallons of waste**
Tri-City Herald
October 21, 2015
LINK

Enough space to hold almost 2 million gallons of radioactive waste has been freed up in Hanford's underground tanks through a series of successful runs of the nuclear reservation's evaporation plant.

The 242-A Evaporator has completed four successful runs since returning to service a year ago after being shut down for four years for improvements.

The evaporator plant is central to DOE's plans to meet its court-enforced consent decree obligations to empty 19 of Hanford's leak-

prone underground tanks. Waste is transferred into the 27 usable, newer double-shell tanks at the site until the waste can be treated for disposal at the yet-to-be-finished vitrification plant.

The Department of Energy has argued in federal court that the evaporator plant can provide enough space in the double-shell tanks that it will not need to build additional waste storage tanks.

But the state of Washington is not convinced the plant can be operated with the efficiency and frequency that would be required to continue emptying single-shell tanks. It has asked the court to order DOE to build four new million-gallon storage tanks by 2022 and possibly more by later deadlines.

The evaporator heats liquid tank waste under vacuum so it will boil at a temperature of about 125 degrees. Water vapor from the boiling waste is captured, condensed, filtered and sent to the Effluent Treatment Facility for treatment and disposal. The concentrated waste is then returned to the double-shell tanks.

Since starting operations in 1977, the evaporator plant has reduced the liquid in Hanford tank waste by more than 70 million gallons. Hanford has about 56 million gallons of radioactive waste stored in underground tanks from the past processing of irradiated fuel to produce plutonium for the nation's nuclear weapons program.

In the first operating run since 2010, the 242-A Evaporator freed up space for almost 800,000 gallons of waste in the double-shell tanks in October 2014. That was followed by smaller runs in June and July that together removed about that much water.

The last in the series was this fall, with the plant operating nonstop for nine days to remove 375,000 gallons of excess water.

In total, the evaporation campaigns created almost as much storage space as two double-shell tanks.

DOE has said in court documents that it plans to conduct 23 more evaporator runs in the next seven years, including three to support emptying double-shell Tank AY-102. The tank has a leak between its shells and will be taken out of service.

"Although the 23 evaporator campaigns planned over the coming years represent an operational increase in terms of the number of campaigns per year, that increase is still within the facility's capability," said Tom Fletcher, DOE assistant manager for the

Hanford tank farms, in a court document. “In addition, by increasing the number of campaigns, evaporator operations should become more routine.”

Operational delays caused by short-term startups and shutdowns should be minimized, he said.

“DOE anticipates that these more routine operations will allow for better maintenance of the facility, more efficient operations and improved planning of campaigns,” he said.

DOE has opposed building more tanks, saying the money would be better spent on work toward getting the waste treated. It has estimated that each new tank could cost $85 million to $150 million, which would include costs of permitting and design and acquiring nuclear-quality materials.

Over the four years the evaporator plant was shut down, DOE contractor Washington River Protection Solutions made improvements to it, including a control room revamp and changes to equipment and operating procedures. Equipment was replaced rather than waiting for it to fail, DOE told the court.

It acquired spare parts and made improvements recommended by the Defense Nuclear Facilities Safety Board to help it better withstand a severe earthquake. The contractor also conducted a complete review of how the facility meets safety requirements related to handling nuclear materials.

“The 242-A Evaporator facility is mechanically sound,” Fletcher said. “Continued integrity assessments and equipment upgrades, along with a proactive maintenance strategy, should keep the evaporator operating for another 30 years.”

The state told the court that DOE’s plans for operation of the evaporator plant may be overly optimistic. If DOE runs out of space in its double-shell tanks, it will have to stop work to empty its leak-prone single-shell tanks.

“Given the history of evaporator performance, there can easily be delays” in planned evaporator campaigns, said Jeff Lyon, tank waste storage manager for the Washington State Department of Ecology, in a court document.

In 2004 an evaporator run was conducted using a transfer line with a tap improperly installed, causing waste to leak. Runs in 2007

were hampered by mechanical failures, Lyon said.

Other runs have started late and one run in the last five years had to be stopped early because sampling showed the the waste slurry being transferred to the plant contained excess solids, he said.

U.S. Judge Rosanna Malouf Petersen has said that DOE will be required to build new storage tanks if it does not meet certain deadlines yet to be determined. However, in that ruling in August, she stopped short of requiring DOE to build four more double-shell tanks by 2022 with up to eight more required after that, as proposed by the state.

The amount of tank space DOE must free up through evaporation campaigns and the schedule that will trigger the requirement for new tanks will be set after the state and federal government submit more information to the court.

**Feds Cancel Research Shipment of Spent Nuclear Fuel to Idaho**
ABC News
October 23, 2015
LINK

Federal authorities have canceled the first of two proposed research shipments of spent nuclear fuel to eastern Idaho but still hope to deliver the second.

The U.S. Department of Energy said Friday that 25 fuel rods weighing about 100 pounds will not be sent to the Idaho National Laboratory.

The move comes after federal and state officials couldn't come to terms on a waiver to a 1995 agreement that ties such shipments to nuclear waste cleanup at the 890-square-mile site. The federal agency is currently in violation of the agreement because of its failure to convert 900,000 gallons of liquid waste into solid form due to malfunctions at a $571 million plant.

"Unfortunately, we were unable to reach an understanding in time to accommodate the necessary transportation planning for the first proposed shipment," the agency said in an email to The Associated Press.

The agency declined to comment on what conditions it found

unreasonable, and that it's assessing other potential destinations for the first research shipment.

"I'm disappointed that a shipment of spent fuel rods is being taken to a facility other than the Idaho National Laboratory," Idaho Attorney General Lawrence Wasden said in a statement. "But even more disappointing is the Department of Energy's decision not to participate in direct and meaningful negotiations that could have led to a resolution that served the interests of all parties."

Wasden has said he'd sign a one-time, conditional waiver to allow the spent fuel into Idaho if federal officials could show him the Integrated Waste Treatment Unit was capable of processing the liquid waste.

The Department of Energy wants to better understand "high burnup" spent fuel that is accumulating at nuclear power plants in the U.S. High burnup fuel remains in nuclear reactor cores longer to produce more energy but comes out more radioactive and hotter. It's cooled in pools before being encased in steel and concrete.

The first proposed shipment to Idaho initially set for August would have come from the Byron Nuclear Power Station in Illinois.

The second shipment, also of 25 spent nuclear fuel rods weighing about 100 pounds, is scheduled for January 2016, from the North Anna Nuclear Power Station in Virginia.

The Department of Energy "will continue to work with the state of Idaho in an effort to identify a path forward for the proposed second shipment," the agency said.

The Idaho National Laboratory is one of 17 Department of Energy labs in the nation, and is considered the primary lab for nuclear research. Officials have said research work on the spent fuel would bring about $20 million a year to Idaho, and losing the work could damage the lab's top-tier status.

"While I am disappointed in the loss of this work, I remain strongly optimistic about the national and international value of ongoing used nuclear fuel research at INL and in the long-term future of the lab," Mark Peters, the lab's director, said in a letter to employees Friday afternoon.

Two former Idaho governors, Democrat Cecil Andrus and Republican Phil Batt, hammered out the 1995 agreement and

blasted current Gov. C.L. "Butch" Otter when it became known in January that the state was looking at creating a waiver to allow the spent fuel shipments.

"I'm pleased that they made that decision," said Andrus about the first shipment being canceled. "That's good news for the people of the state of Idaho."

The former governors have long warned that altering the 1995 agreement could open the gate to tons of commercial nuclear waste coming to Idaho for long-term storage. Andrus has filed a lawsuit against the Department of Energy seeking more information about the shipments.

The Idaho National Laboratory is in the district of Rep. Mike Simpson, R-Idaho, who in a statement called the decision not to send the first shipment "unfortunate" and that he'd continue to promote research opportunities at the lab.

"I'm sure it's frustrating for everybody involved," said Kerry Martin, an Idaho National Laboratory Oversight Program manager with the Idaho Department of Environmental Quality. "I know they've got good people working on (the liquid waste plant)."

**Hanford cleanup north of Richland largely completed**
Tri-City Herald
October 24, 2015
LINK

Critics who say no progress is being made on environmental cleanup at the Hanford nuclear reservation likely have not been to the 300 Area.

It was a major industrial complex for the site, making the uranium fuel that would be sent to the 100 Area reactors for irradiation and then to the 200 Area processing plants for the plutonium to be separated out. It also was used for research, with much of the work conducted elsewhere at Hanford tested first in the 300 Area.

Sixteen years after cleanup work began there is only a handful of building still standing. Located along Stevens Drive just north of Richland, it’s the most publicly visible sign of progress at the nuclear reservation.

The six research reactors that operated there are gone.

Some 209 structures, ranging from sheds to a contaminated building larger that a football field, have come down inside the fence of the 300 Area industrial park. Workers have cleaned up 312 waste sites, including burial grounds with drums of chemical and radioactive waste and, in one case, a safe with a jug filled with plutonium-laced liquid.

The 51 acres of dirt laid bare by heavy equipment has been seeded with native vegetation that will come up in the spring.

“The progress in the 300 Area has been incredible, with the amount of work that has been done to eliminate hazards close to the Columbia River and city of Richland,” said Stacy Charboneau, manager of the DOE Hanford Richland Operations Office.

*Bulk of cleanup completed*

Workers haven’t quite put a period on the end of 300 Area cleanup. A couple of essential, longer term projects will continue in the coming years.

But this fall, most of the planned cleanup of the 1,700-acre industrial center was wrapped up and the cleanup focus has moved on to other areas.

“DOE and the contractors knew what they needed to do. Building by building, waste site by waste site, they plowed through,” said Dennis Faulk, Hanford program manager for the Environmental Protection Agency.

There’s been talk within the DOE cleanup complex in recent years of zeroing in on the highest risk projects.

“But there is something to be said for finishing work, for getting it done and declaring victory,” Faulk said. “I think that’s what’s been done in the 300 Area.”

Contaminated soil and debris have been hauled out to central Hanford to be buried in a lined landfill for chemical and low-level radioactive waste far from the city of Richland and the Columbia River.

“It totally mitigates the environmental concerns. It takes it off the table,” said Dan Elkins, the 300 Area project manager for Washington Closure Hanford, the contractor that has been doing

environmental cleanup work there for the past decade.

Buildings with hazardous contamination, some built as early as World War II, deteriorated over the decades. They once were vulnerable to intrusion by birds and rodents that potentially could spread radioactive or other hazardous contamination. Soil contamination posed a threat to the groundwater that migrates toward the Columbia River.

*Future of area*

The future of the 300 Area, as laid out in a DOE land use document, calls for it to continue to be used as an industrial area. But as the city of Richland grows north along the riverfront, "leave it to the eye of the beholder what it could be," Faulk said

The area still has a couple of buildings that serve the Hanford nuclear reservation, including a new records repository and a fire station. Pacific Northwest National Laboratory also continues to conduct research in a few buildings, including a newer laboratory on the Columbia River.

Once those buildings are no longer needed, some contamination near underground utilities that serve those buildings will be dug up.

Other remaining cleanup includes a debris burial ground that's technically part of the 300 Area, but across Stevens Drive from the industrial complex. Work also continues to address uranium contamination in groundwater near the Columbia River.

One of the area's most challenging cleanup projects, the 324 Building, remains. Much of the work to clean out the contaminated hot cells that stand up to three stories high had been completed when a spill of high level radioactive waste was discovered beneath the building.

The shell of the building has been left standing to shield the radiation and keep precipitation from spreading contamination deeper into the ground. Cleanup is expected to go forward as money becomes available in the next few years.

*Cleanup lessons learned*

But with cleanup wrapping up for now, the change in the 300 Area is "actually kind of disorienting," said Mark French, Department of Energy project director for Hanford cleanup near the Columbia

River. When workers make the familiar drive into the area at what was Cypress Street where the badge house used to stand, the site is bare other than a building used by PNNL in the background, he said.

Lessons learned at the 300 Area will be used as extensive cleanup elsewhere at Hanford continues.

"While the state is encouraged by the accomplishments in the 300 Area, some very serious and complex challenges remain to be addressed," said Jane Hedges, Washington state's nuclear waste program manager.

One successful strategy in the 300 Area was adopting a bias for action to move cleanup along to completion, even though Hanford officials were not sure just what they were getting into when they began cleanup there in 1999.

They thought "let's not study this forever," French said. "We know we have got cleanup to do and we know we need to do it urgently because we have releases to the environment."

Another successful strategy was searching out specialty subcontractors for key projects, such as explosive demolition experts to quickly bring down some structures and a heavy lift crane company to raise reactors from their underground structures, French said.

Elkins said having the right people asking the right questions contributed to success. Questions asked about how the 324 Building was constructed led to the discovery of the high level spill beneath it before the building was torn down, exposing the site.

Keeping an open mind and listening to input from all workers "pays big dividends in the end," he said.