

## **ECA Update May 19, 2016**

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EMSSAB Meeting  
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**08**

House Nuclear Cleanup  
Caucus  
Capitol Hill

**June 2016**

**08**

EMSSAB Meeting  
Oak Ridge, TN

**August 2016**

**Report details Y-12 contractor problems; CNS says improvements made since 2015**

Knox News

May 18, 2016

[LINK](#)

OAK RIDGE — The government's belated release of a 2015 performance review shows why Consolidated Nuclear Security — the managing contractor at the Y-12 and Pantex nuclear weapons plants — received such a low score (57 out of 100) on its first report card.

Among the problems cited was the contractor's accidental shipment of too much weapons-grade uranium to a New York lab last summer. The National Nuclear Security Administration said the mix-up, which violated federal transportation rules and resulted in fines against CNS, was a prime example of the contractor's operational flaws.

The Y-12 incident "highlighted the overall lack of success" the contractor had experienced in trying to improve conduct of operations, according to the report.

"A shipment from Y-12 to an off-site laboratory exemplifies this culture and performance problem," the NNSA review stated.

"Areas of concern include supervisory engagement and control, procedural compliance, manual manipulation of data, lack of questioning attitude, and confidence in material control and accountability."

Other areas also drew tough criticism, ranging from leadership issues to late deliveries and other problems with the contractor's management of the nuclear weapons mission at the two plants.

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September 2016

14-15

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CNS, however, says it had made numerous improvements over the past five months and worked to address the government's concerns.

In a statement, the contractor emphasized the ratings period included an "unprecedented transition" of two NNSA sites.

As part of contractor reform efforts, the National Nuclear Security Administration combined the management of two nuclear weapons plants — 1,000 miles apart in different states — in order to increase efficiency and save taxpayer dollars.

CNS said the contractor, which took over management of Y-12 and Pantex on July 1, 2014, encountered "several unexpected challenges as we sought to implement the requirements of the new contract."

"We carefully considered feedback in the NNSA's evaluation and sought to maximize our understanding of their view of our performance," the Bechtel-led contractor team said in a statement.

In the five months since receiving its performance score, CNS said it had realigned the contractor's organization to better align with federal overseers in the NNSA's Production Office.

The contractor cited improvements in conduct of operations at the high-security nuclear facilities and other changes.

"These changes have already paid dividends in enhancing our performance in support of our mission to safely and securely help maintain the nation's nuclear deterrent," CNS stated.

The National Nuclear Security Administration completed its evaluation report in mid-November 2015, but did not release it publicly until last week. Various organizations, including the News Sentinel, submitted formal requests for the 45-page report via the Freedom of Information Act.

While the detailed report on the contractor's performance wasn't available until recently, a letter that included the performance score (57 out of 100) and total fee (\$42.6 million out of a maximum possible \$51.2 million) was circulated in December.

The fee appeared to be high considering the low score, but that was because the contractor received a fixed fee for its first 12 months on the job. That included the final three months of fiscal year 2014 (July-September) and the first nine months of fiscal year 2015 (October-June).

Only in the final three months of fiscal year 2015 was the fee award based on performance, and that includes the incident last July in which the Y-12 contractor shipped 1,000 grams of highly enriched uranium — 10 times the correct amount — to a commercial lab. CNS was fined \$33,600 by the U.S.

Department of Transportation, according to records received by the News Sentinel under the Freedom of Information Act.

The performance report indicated some problems in achieving goals related to dismantlement of nuclear weapons, although it appeared Y-12 succeeded in meeting more than 100 percent of its goal for dismantling secondaries — the second stage of nuclear warheads, a specialty of the Oak Ridge plant.

CNS drew praise for some activities that took advantage of the two-plant management contract. The report indicated the contractor loaned some of Y-12's engineering resources to Pantex to help complete an important project.

The contract also received praise for Y-12's development work on the B61-12 bomb, a refurbished weapon system that consolidated aspects of earlier versions of the bomb.

"CNS at Y-12 was able to re-establish key B61 processes, unused in over a decade, to support early development hardware deliverables," the report stated.

## **White House threatens veto, calls MOX program 'past deadline, over budget'**

Aiken Standard

May 17, 2016

[LINK](#)

President Barack Obama's administration called the current version of the National Defense Authorization Act, including continued funding for the MOX project, an impedance to the administration's national defense strategy Monday and threatened an eventual veto.

The threat came from a statement released by the Executive Office of the President which described the administration's concerns with a litany of topics within the resolution, including the continuation of the Mixed Oxide Fuel Fabrication Facility, or MOX, at Savannah River Site.

Obama and the National Nuclear Security Administration, or NNSA, have been outspoken about dismantling the MOX program, calling the program past deadline and over budget.

Construction costs were estimated at about \$5 billion by the Department of Energy in 2012 and were raised to about \$7.7 billion in 2013.

Estimates for life-cycle cost, which include construction and operation, ranges from \$30 billion to more than \$50 billion dollars – depending on which of the many government or watch-dog organizations are asked.

The MOX facility was created as part of a diplomatic arrangement with Russia to dispose of 34 metric tons of weapons-grade plutonium as a part of global nuclear non-proliferation efforts. The process would create fuel for use in commercial reactors by adding uranium to create Lower Enriched Uranium for electricity generation.

The section of the Defense Act covering MOX does allot \$340 million to continue the construction and progress on the program. However, there is a series of provisional statements that would allow U.S. Energy Secretary Ernest Moniz to redirect funding to other DOE endeavors.

Several conditions would have to be met, including a failure on the part of the contractor to produce a fixed-price contract for construction completion, if requested by Moniz, and official notification that he has sought negotiation with relevant entities to approve the alternative nuclear disposition method.

The preferred alternative method, as announced by the Energy Department, is a dilute-and-dispose method called “downblending.”

The downblending process, which was not agreed to by the Russians, mixes the plutonium with inert materials that would then be disposed of at the Waste Isolation Pilot Plant, or WIPP, in New Mexico.

Reports from multiple sources, including the Aiken Standard, have said that Russian President Vladimir Putin opposes the U.S.’s move to downblending, partially because the material could allegedly be refined again to create weapons-grade plutonium.

Another provisional statement would require Moniz to commit to the removal of plutonium from South Carolina and ensure a sustainable future for the Savannah River Site.

However, there is no requirement written for the amount of plutonium nor the time line for its removal in order to allow Moniz to move funding away from MOX.

In the MOX section, the executive statement also said that an important consideration is that the alternative to MOX would likely enable the United States to remove plutonium from South Carolina decades sooner than MOX could.

According to the statement, Obama’s advisers would have him veto the bill.

The House is scheduled to consider the bill on the floor this week, and the Senate will take up its version in the near future.

Obama vetoed the Defense Act for Fiscal Year 2016 when it made it to his desk in 2015. If the bill isn't passed before the new fiscal year begins on Oct. 1, 2016, provisional measures may be required as they were in 2015.

However, a two-thirds majority vote in Congress would override a presidential veto. According to the office of U.S.

Rep. Joe Wilson, R-S.C., it is too soon to speculate whether or not a future vote would be able to override a veto because some of the provisions could change before then.

### **Advancement of funding for Piketon cleanup announced**

News Watchman

May 17, 2016

[LINK](#)

On May 12, the office of U.S. Senator Sherrod Brown (D-OH) announced that the U.S. Senate approved \$266 million for decontamination and decommissioning operations at the former Portsmouth Gaseous Diffusion Plant in Piketon.

"This is a good step toward maintaining local jobs at the Portsmouth Gaseous Diffusion Plant and keeping cleanup efforts on track so the site can attract future investment," said Brown. "These jobs are critical to Piketon and southern Ohio, and I'll continue efforts to protect them."

The appropriations were included in the Senate's Energy and Water Appropriations Bill. Senator Brown and other members of the Ohio Congressional delegation have urged appropriators to fully fund the cleanup of the Piketon site.

## **TVA sensible to move forward on modular reactors**

Knox News

May 19, 2016

[LINK](#)

The Tennessee Valley Authority has taken the first concrete step toward installing modular nuclear reactors at its Clinch River site near Oak Ridge.

TVA filed an Early Site Permit application with the Nuclear Regulatory Commission, which will evaluate the 1,200-acre site's safety, environmental issues and emergency preparedness requirements for construction of a modular reactor complex. The NRC held meetings in Oak Ridge last month about the project.

"This submittal is a key milestone for our company and the nuclear industry," TVA Chief Nuclear Officer Joe Grimes said in a statement. "TVA is the first in the industry to submit any type of application related to SMRs (small modular reactor) to the NRC."

Moving forward with the project is a welcome development. The nation needs to shift away from fossil fuels, which pollute the air and contribute to climate change, and nuclear power is the most practical alternative because it produces more energy on a larger scale than wind or solar installations. TVA plans to eventually produce half its power from noncarbon sources.

Traditional site-built nuclear power plants are huge and expensive — too rapid an expansion of TVA's nuclear fleet in the past is a prime cause for its monstrous debt.

A small modular reactor is factory-built rather than constructed on site, and is transported to its location. Several small modular reactors can be linked together at one location to create a complex that approaches the generation capacity of traditional plants.

The self-contained small modular reactors do not need much of the piping and other infrastructure of site-built reactors. The concept of using factory-built reactors in power plants is based on the U.S. Navy's nuclear submarine reactors, which have excellent safety records, and allows for the standardization of components and maintenance.

Several designs are under development by different companies, and TVA plans to develop the Clinch River site in a way that it can be used for whatever design is available first.

The pressurized water reactor modules are much smaller than site-built reactors — some designs would produce only 125 megawatts, compared to 1,170 megawatts at Watts Bar Unit I. A six-reactor plant would produce 750 megawatts.

Preliminary plans call for the reactors to be installed below ground level and to rely on passive safety systems that are simpler and less prone to malfunctions. Refueling will be needed only once every five years during the expected 60-year lifespan of each reactor.

The TVA modular reactor effort is a partnership between TVA and the U.S. Department of Energy to speed up the entry of the reactors into the marketplace. DOE is co-funding the application and later work on the review and approval process under an interagency agreement with TVA. Such cooperation should help make the project viable.

The NRC's permitting process is lengthy, and any decision on construction is years in the future, but TVA has taken the first step of the journey. As a federally owned utility, TVA is in a unique position to test innovative energy concepts. Being the first utility in the country to take on a small modular reactor project is one way TVA can fulfill its public duty.

## **Cantwell: We Must Address Nuclear Power Problems**

Morning Consult

May 17, 2016

[LINK](#)

In order for nuclear energy to remain a part of the U.S. energy mix, there need to be viable solutions for dealing with nuclear waste, Senate Energy and Natural Resources ranking member Maria Cantwell (D-Wash.) said during a hearing on Tuesday.

“If nuclear power is to remain a part of our energy future, we need to develop and demonstrate the next generation of nuclear power plants — and for me, we also need to deal with the challenges of nuclear waste,” Cantwell said. “We all need to deal with this, but this is something that is pressing every day for us in the state of Washington. The lack of a comprehensive set of solutions has hampered both commercial nuclear development, as well as our defense waste clean-up efforts in this country.”

Cantwell also said addressing safety issues, such as those that led to the Fukushima and Chernobyl disasters is a necessary part of securing nuclear energy’s future. She pointed to advanced nuclear technology development as a means to make nuclear power safer and to help the U.S. move toward clean energy.

“New designs must be safer, cheaper, more efficient and proliferation-resistant. In addition, we must have a credible licensing and regulatory system, so that nuclear power is not only safe, but accepted by the public,” Cantwell said.

The Senate’s recently passed comprehensive energy bill, S. 2012, includes a provision to enable civilian research and development of advanced nuclear energy technologies. The House Energy and Commerce Subcommittee on Energy and Power advanced a similar bill by voice vote last week. That bill, offered by Rep. Bob Latta (R-Ohio), would also allow the Nuclear Regulatory Commission to develop new framework for advanced reactor licensing.

**State: NRC final report on Yucca defective**

Pahrump Valley Times

May 19, 2016

[LINK](#)

State officials are ready to fight the Nuclear Regulatory Commission's final supplement to the Department of Energy's environmental impact statement for a proposed nuclear waste repository at Yucca Mountain.

Nevada Agency for Nuclear Projects Director Robert Halstead said the state is ready to challenge "every conclusion" in the 300-page document before the licensing board.

"On technical and legal grounds, this final EIS supplement is so defective, that if the NRC were about to take final action, we would be going to the U.S. Court of Appeals for the D.C. Circuit in less than 30 days to make them do it all over again," Halstead said.

The supplement that was released on Thursday evaluated the potential environmental impacts on groundwater and impacts associated with the discharge of potentially contaminated groundwater to the ground surface in the event of a radionuclides release from a repository at Yucca Mountain.

In a preliminary analysis of the document, state officials said the NRC ignored most of Nevada officials' comments on the draft that was released in August 2015, as it again concluded that the Yucca Mountain impacts on groundwater over one million years would be "small."

"Our initial review of the final EIS supplement finds that NRC staff have failed to correct any of the major deficiencies we identified in our comments in November, and if the NRC were about to take a final agency action based on this document, we would have grounds for an immediate legal challenge," state officials said in a statement.

Halstead said the evaluation of impacts on Native American tribes is especially deficient.

“For example, the NRC added some map information as we suggested, showing the contamination plumes reaching the springs at Furnace Creek, under the no pumping at Amargosa farms future scenario, but their map does not include the Timbisha Shoshone trust lands near Furnace Creek, which are potentially impacted, or the tribal lands near Death Valley Junction,” he said.

Officials discussed the final supplement at the Nevada Commission on Nuclear Projects meeting on Tuesday. The event brought Nye County, state officials and several affected parties, including tribal members to the Grant Sawyer Building in Las Vegas.

Ian Zabarte, a member of the Western Shoshone tribe and board member of the Native Community Action Council that stands in the NRC’s licensing proceedings, said the NRC didn’t “sufficiently” address the Western Shoshone health and environment.

“The government of Newe Sogobia does not consent to be a global sacrifice zone for the disposal of high-level nuclear waste from the world. We reaffirm opposition to U.S. violation of the territorial integrity of Western Shoshone domain as identified by the 1863 Treaty of Ruby Valley,” Zabarte said in a statement.

Darrell Lacy, director of the Nye County nuclear waste project, said the final supplement is consistent with past findings such as the Safety Evaluation Reports where the NRC staff found that Yucca Mountain could be built and operated safely.

“The next step would be licensing for the Yucca Mountain design,” Lacy said. “If Congress decides to provide funding for the licensing process, we hope they provide the needed funding for Nye County and the other local and state agencies to participate.”

The DOE previously declared the site “unworkable” and declined to go forward with the project. Halstead said the NRC is down to \$1 million-to-2 million in Yucca

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Mountain funds and will need at least \$330 million for full licensing over three-to-five years.

U.S. senators Harry Reid and Dean Heller have long opposed new funding for the licensing of Yucca Mountain. In recent months however, several U.S. Congress members renewed their call to restart the licensing process. On April 19, the House Appropriations Committee adopted a fiscal year 2017 appropriations bill that provides \$150 million for the nuclear waste disposal program and \$20 million for the NRC to continue the adjudication of DOE's Yucca Mountain license application.

The bill also includes \$5 million for affected units of local government (AULGs), 10 counties that are located in the nearest proximity to Yucca Mountain and would conduct oversight and participate in the licensing process, if the nuclear waste repository moves forward.

A plan to permanently store 77,000 tons of nuclear waste in Yucca Mountain was mothballed by the Obama administration in 2010. The NRC restarted work on the DOE's license application to build and operate a repository because of a 2013 federal appeals court decision.

The state's technical experts and legal team will prepare a detailed analysis of the final EIS supplement during the next 90 days, officials said.

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