

# ECA Update: August 14, 2015



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### **Notice of Intent to License the ELEA Consolidated Interim Storage Facility**

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On August 3, Holtec International filed its Notice of Intent to License the Eddy-Lea Energy Alliance (ELEA) Interim Storage facility with the U.S. Nuclear Regulatory Commission. As stated in the letter, the proposed site is "well investigated" and only about 12 miles from the WIPP facility." In addition, Holtec notes, "We are pleased to observe that the prerequisites for a consent-based facility envisioned by DOE are fully met by the proposed ELEA facility which enjoys overwhelming support of the local community and a strong endorsement of the State's Governor." Please find a copy of the letter [here](#).

### **Savannah River Site facility marks 60 years**

*Aiken Standard*

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## Events of Interest

[Oak Ridge EM SSAB](#)

[Meeting](#)

August 22, 2015

[Paducah EM SSAB](#)

[Meeting](#)

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[Meeting](#)

September 9-10

[DOE National](#)

August 12<sup>th</sup>, 2015

[LINK](#)

The smile on George Blackburn's face slowly phased into a prideful expression of humility as he reflected on his 40 years working at the historic H Canyon, one of the oldest and most significant facilities operating at the Savannah River Site.

Blackburn wasn't alone during Wednesday's 60th anniversary celebration of H Canyon – the only chemical separations facility still in operation in the United States.

Several other SRS retirees joined current workers, lawmakers and friends to celebrate right outside the facility in a tightly secured area inside the 310 square miles of the site.

Looking back, Blackburn said he was trained to take orders and was one of the operators on line at the facility.

H Canyon first produced nuclear materials in support of the nation's defense weapons programs. After the Cold War, the mission changed to assisting in disposition and stabilizing nuclear materials and spent nuclear fuel from legacy cleanup. The canyon is used in missions domestically and internationally.

"We worked hard, and we played hard. But we got the job done, and that's No. 1," Blackburn said.

He added that there's also a feeling a pride knowing that the site helped win the Cold War. Workers at the facility produced the plutonium necessary to defend the country.

"Defend it, we did," Blackburn said. "One blessing that came out of this is that none of the plutonium we generated here was ever used in an act of war."

In addition to Blackburn, others spoke about various issues surrounding H Canyon. For example, state Sen. Tom Young, R-Aiken, and U.S. Rep. Joe Wilson, R-S.C., spoke about the collaborative efforts each year to provide adequate funding for the facility.

"There has to be an understanding of how unique this facility is," Wilson said. "So it's crucial year after year."

Jack Craig, who was recently brought on as site manager, said the

## Cleanup Workshop

September 29th-30th,  
2015

*The Key Bridge  
Marriott  
Arlington, VA*

significance of the facility is huge because of the treaties and agreements with other countries to take materials that are of potential risk and process them so they are no longer a threat.

After 60 years in operation, Craig said another challenge is keeping H Canyon in good standing to continue missions.

“It’s an aging facility, so the maintenance and infrastructure dollars we need to keep it safe and operating is a high priority for us, too,” he said.

Department of Energy officials were also on hand Wednesday, as well as officials from Savannah River Nuclear Solutions, the site’s management and operations contractor.

Carol Johnson, president and CEO of the contractor, said H Canyon has created a legacy of serving the nation; she worked as a lower-level manager at H Canyon in 1991.

“It was a tremendous experience for me. I worked around some great people,” Johnson said. “And now, to me, it’s all about the legacy and moving into the future.”

H Canyon was originally constructed in the 1950s and began operations in 1955. Today, about 600 employees have some form of a work connection to the facility.

Derrek Asberry is the SRS beat reporter for the Aiken Standard and has been with the paper since June 2013. He is originally from Vidalia, Ga., and a graduate of Georgia Southern University. Follow him on Twitter @DerrekAsberry.

### **Richland nuclear plant increases electricity output capacity**

*Tri-City Herald*

August 11<sup>th</sup>, 2015

[LINK](#)

The nuclear power plant near Richland is putting enough electricity on the grid to serve about 40,000 more homes than it could five years ago.

The difference has been the maintenance and improvements made during its refueling outages.

Testing has confirmed that the Columbia Generating Station’s output increased by at least 28 megawatts following the refueling

and maintenance outage that concluded in late June, Energy Northwest announced Tuesday.

That's in addition to the 20 megawatts gained when the main steam condenser and other projects were completed in the 2011 refueling outage.

The bulk of the increase from the last refueling outage came from installation of a new feedwater flowmeter, which measures the amount of water flowing through the reactor core. The more water that can be used, the greater potential power output.

Over time, the calibration of the previous flowmeter degraded and water flow was limited as a result to make sure it remained within limits. The new ultrasonic instrumentation provides accurate measurement of the water flowing to the reactor core and gets the reactor to a true 100 percent power output, according to Energy Northwest.

Before the most recent outage began in May, Energy Northwest officials had conservatively estimated the increase in output capacity that could be gained by installing the new flowmeter at about 5 megawatts, about a quarter of what testing has shown.

The additional megawatt increase to 28 megawatts is mostly from work on valves throughout the plant during this year's outage.

Five years ago, Energy Northwest was calling Columbia a 1,150 megawatt plant. As of Tuesday, it is calling it a 1,190 megawatt plant, a conservative number to make sure it can continue to produce that output.

"These are extra megawatts with almost no incremental cost and zero carbon emissions," Brent Ridge, Energy Northwest's chief financial officer, said in a statement. "Because of that they are incredibly valuable to the region's ratepayers."

Columbia Generating Station, the third largest generator of electricity in Washington state, sells its electricity at-cost to Bonneville Power Administration. More than 90 utilities, including those serving Richland, Kennewick and Pasco, receive a percentage of its output.

Energy Northwest shuts down every other year to replace about a third of its fuel and to do maintenance that would be difficult or impossible when the plant is operating. Between its last two

outages, it operated for 683 days straight at a more than 98 percent capacity factor.

**Idaho official: Feds issue deadline on nuclear fuel rods**

*AP: My San Antonio*

August 11, 2015

[LINK](#)

BOISE, Idaho (AP) — The U.S. Department of Energy has given Idaho a two-month deadline to waive parts of an agreement to clean up nuclear waste at a federal facility in southeast Idaho or lose doing important research work on spent nuclear fuel, an Idaho official says.

Idaho Department of Commerce Director Jeff Sayer in a letter to Gov. C.L. "Butch" Otter dated Monday said the federal agency plans to send a 2016 shipment elsewhere if it's not allowed into the Idaho National Laboratory.

Sayer said the acting assistant secretary for the Office of Nuclear Energy, John Kotek, in mid-July told Idaho officials about the agency's plans. Sayer said that confirmed fears Idaho was in danger of losing the research work that would bring millions of dollars to the state.

"Mr. Kotek's comments removed ambiguity from this issue and clearly state that what was an earlier speculation is now a definitive reality," Sayer wrote.

The Office of Nuclear Energy didn't return a call from The Associated Press on Tuesday.

Sayer, besides directing the lead economic development agency in the state, is also a member of the Leadership in Nuclear Energy Commission, or LINE Commission. The commission was created by Otter through an executive order, and its purpose is to recommend to the governor policies and actions that support the Idaho National Laboratory and the economic benefits it offers to the state.

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

The Idaho National Laboratory would examine the spent fuel to determine how its properties change and what that means for storage at power plant sites and eventual removal for permanent storage. Scientists are also interested in recycling the fuel rods. Nuclear scientists at the Idaho facility say they can safely handle the spent fuel rods.

U.S. Energy Secretary Ernest Moniz in a letter to Otter dated Dec. 16 said funding for the research associated with the nuclear waste could bring up to \$20 million annually through the end of the decade.

However, the Department of Energy is in violation in two areas of a 1995 agreement hammered out with Idaho officials who were concerned the 890-square-mile federal site was being turned into a nuclear waste dump.

Malfunctions with a \$571 million facility called the Integrated Waste Treatment Unit continue to cause delays turning 900,000 gallons of liquid waste into a solid form. The high-level radioactive waste came from processing spent nuclear fuel from U.S. Navy ships and is stored in tanks.

The second violation is because an underground nuclear waste repository in southern New Mexico is not taking shipments of low-level waste because of mishaps at that facility, leaving the waste stuck in Idaho past deadlines set in the 1995 agreement.

Idaho Attorney General Lawrence Wasden has told federal officials that the state won't accept the spent fuel rods until the Department of Energy shows it can successfully process the liquid waste.

Sayer, in his letter to Otter, said Wasden was jeopardizing future research projects at the Idaho lab.

Wasden, in a statement to The Associated Press on Tuesday, said he understood the importance of the proposed shipment and the significance of the Idaho National Laboratory's role as a lead spent fuel research facility.

"I'm deeply disappointed that Mr. Sayer would write a letter on behalf of the Line Commission in which he outlines his understanding of my views without ever talking to me about my position and efforts," Wasden said. "I fully intend to have a

conversation with Mr. Sayer."

### **DOE sampling program identifies tainted wells**

*Knox News*

August 12th, 2015

[LINK](#)

OAK RIDGE — As part of expanded groundwater studies sponsored by the U.S. Department of Energy, contractors identified contaminants that exceeded drinking water standards in 3 of 36 private wells sampled on property across the Clinch River from DOE's Oak Ridge reservation.

A couple of the wells had elevated levels of lead, and two of them had "exceedances" for certain types of radioactivity, according to a summary of the preliminary results that DOE Environmental Manager Sue Cange sent to Roane County Mayor Ron Woody.

The results were from a first round of sampling in DOE's "Offsite Groundwater Assessment," which was launched about a year ago. Additional well samples are being taken this month to gather information about groundwater flow and to evaluate potential for pollution from DOE sites reaching residential areas.

"As you know," Cange wrote to Woody, "this assessment is sampling existing privately owned wells and springs in the area west of the Clinch River to evaluate the potential for migration of contaminants across the Clinch River from the Oak Ridge Reservation."

The purpose of the study is not to establish the water quality of individual wells, Cange wrote, although all 36 property owners whose wells were sampled received letters from DOE — either stating that nothing was found that exceeded standards or, in the case of three, letters that discussed the results of elevated contaminants.

Woody said there did not appear to be any indication that contaminants in the three wells were associated with DOE operations. "I didn't see any issues," he said.

David Adler of DOE's Office of Environmental Management said radon and other radioactive elements identified in the sampling occur naturally and are found commonly in groundwater.

The Tennessee Department of Environment and Conservation is

doing independent sampling.

"We co-sampled one of the three wells identified (with contaminants) in the results provided by DOE ...," state spokeswoman Kelly Brockman said. "As part of this cooperative effort, TDEC plans to do more sampling this month and next month. We will also be doing independent sampling at additional locations."

The specific sites of the wells were not released, but DOE spokesman Ben Williams said two of the wells with results above drinking water standards were in Bear Creek Valley west of the Clinch River, and the third was in Sugar Grove Valley about four miles west of DOE's East Tennessee Technology Park.

These sites are downstream from the Jones Road properties — near the boundary of Loudon and Roane Counties — where well-water pollution concerns were raised a few years ago. In those cases, DOE paid to hook up property owners with treated-water lines and now uses their former drinking wells to monitor pollution.

### **Reactivation of N-reactor major step in securing stable supply of power**

*The Japan News*

August 12<sup>th</sup>, 2015

[LINK](#)

The Yomiuri Shimbun

A period lasting nearly two years in which all nuclear power plants in Japan were idle has finally come to an end.

Kyushu Electric Power Co.'s Sendai nuclear power plant in Kagoshima Prefecture restarted its No. 1 reactor Tuesday. If all goes well, the plant will start generating electricity on Friday.

It is the first nuclear power plant to resume operations under new and stricter safety standards, which were introduced following the disaster at Tokyo Electric Power Co.'s Fukushima No. 1 nuclear power plant.

A stable supply of electricity is vital for the people's livelihood and the nation's economic development. It is significant that progress has been made in the utilization of nuclear power, an important energy source that can be produced at low cost and with stability.

Resuming operations at the plant comes after an unusually long hiatus, lasting more than four years.

Kyushu Electric must remain cautious in carrying out its work and avoid problems by all possible means.

Risk of accidents reduced

The unexpectedly powerful tsunami in March 2011 hit the Fukushima power plant, which lost its power source and therefore its ability to cool its reactors, leading to a reactor core meltdown.

Drawing lessons from the accident, the Nuclear Regulation Authority drew up new safety standards that oblige nuclear power plant operators to reinforce their facilities on the assumption that a natural disaster more massive than previously envisaged would occur.

The new standards have also made it mandatory for nuclear plant operators to take such measures as reinforcing cooling systems to ensure they remain operable during emergencies, in preparation for serious accidents that previously were believed would “never occur.”

As the Sendai plant is located on high ground, it is unlikely for the plant to be inundated by a tsunami. But Kyushu Electric set up safety barriers to protect pumps that would draw in seawater to cool down nuclear reactors, and built a weir so that seawater can also be brought in when a tsunami recedes.

In the southern part of Kyushu, there are a number of volcanic mountains, such as Sakurajima and Mt. Kirishima. In light of this, Kyushu Electric has decided to constantly monitor the volcanic activity of these mountains and stop operating the plant if there is any indication a massive eruption is likely to occur, while at the same time moving nuclear fuel to a secure location in such an emergency.

With safety measures more stringent than those taken before the Fukushima disaster, it can be said the danger of a serious accident occurring at the plant has been markedly reduced.

Nevertheless, the risk of an accident cannot be reduced to zero.

On the reactivation of the plant, Kyushu Electric’s President Michiaki Uriu said, “We will continue to do our utmost to ensure

the safety of operations, while proactively disclosing relevant information.” This is a reasonable resolution.

An evacuation plan in the event of a nuclear accident is also important.

Nine cities and towns located within about 30 kilometers of the Sendai plant have already drawn up evacuation plans.

Economy, Trade and Industry Minister Yoichi Miyazawa said, “In the unlikely event of an accident, the central government will take the lead in dealing with it.”

It is necessary for the central government and local governments concerned to cooperate in holding a series of evacuation drills for local residents to enhance the effectiveness of the evacuation plans.

#### Limits to thermal energy

In commenting on resumed operations at the Sendai plant, Miyazawa said, “Steady progress [in reactivating idled nuclear power reactors] is indispensable to achieve sound economic progress and stabilize the life of the people.” This is a reasonable statement.

Nuclear power generation accounted for 30 percent of this nation’s electricity supply before the 2011 Great East Japan Earthquake. However, the disaster led to a nationwide halt in nuclear power plants operation, a development that has raised the percentage of thermal power generation vis-a-vis the total power supply to 90 percent. From the viewpoint of energy security, an excessive reliance on imported fuel is problematic in many respects.

The growth in fuel costs has resulted in a 25 percent increase in home electricity charges and a 38 percent hike in electricity bills for industrial use, compared with pre-earthquake levels. A considerable number of small and medium-size companies have been put under considerable pressure, even to the extent of shutting up shop.

The shortage of generating capacity has not caused such problems as a massive power outage. However, the fact remains that the current electricity supply has been only made possible by even putting into operation outdated thermal power plants that would otherwise not be used.

There are significant problems in using renewable energy such as solar and wind power generation. Power output from these sources fluctuate depending on the weather. As circumstances stand today, renewable energy cannot serve as the main source of electric power supply.

Nuclear power generation is an important base-load power source that can stably generate electricity at low fuel costs. Smooth progress must be made in reactivating suspended reactors after confirming the safety of these facilities.

In commenting on the Sendai plant, Yukio Edano, secretary general of the Democratic Party of Japan, said, "I don't think there is a need to resume operations in a compelling and hasty manner." He seems to misunderstand the situation.

When the DPJ was in power, then Prime Minister Yoshihiko Noda decided to resume operations at Kansai Electric Power Co.'s Oi nuclear power station, apparently hoping to protect people's lives from an industrial hollowing-out and loss of employment. It is extremely regrettable that the DPJ has not inherited such a broad perspective.

The focus of attention is whether other nuclear power facilities can be reactivated smoothly. The Sendai facility's No. 2 reactor will likely be reactivated this autumn, and the No. 3 reactor at Shikoku Electric Power Co.'s Ikata plant as early as this winter. However, it is not clear whether and when operations will be resumed at other nuclear power plants.

Extend operations to 60 years

It has taken more than two years to reactivate the Sendai plant's No. 1 reactor after an application was filed for resumption of operations there. This is because an application requires a massive amount of documents that have to be scrutinized. By using its experience in addressing the Sendai plant-related application, the NRA should expedite its examination of similar applications that have been submitted.

The government has said the nation's best power mix for fiscal 2030 is to ensure that the percentage of nuclear power generation vis-a-vis the total power supply stands somewhere between 20 percent and 22 percent. However, this objective will not be achieved if the current rule requiring nuclear power reactors to be decommissioned 40 years in principle after they are put into

operation is strictly applied. With this in mind, the government should adopt a policy of extending the life of reactors in operation up to 60 years, while building new ones.

To continue utilizing nuclear power plants, it is important that the government should be involved and pave the way to a nuclear fuel cycle, in which spent nuclear fuel is reused, and selection of final disposal sites for radioactive waste.

