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Upcoming Events

June 2016

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DOE Consent Based Siting
Public Meeting
Boston, MA

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House Nuclear Cleanup
Caucus
Capitol Hill

June 2016

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Oak Ridge EMSSAB Meeting

June 2016

Sen. Harry Reid's pending retirement has buoyed proponents of establishing Yucca Mountain as a permanent repository for radioactive waste. Yucca is back in the congressional ether this week, as the House is poised to consider a spending bill that would fund a process for licensing the facility and prevent the funding of an alternative. (That provision was one the White House mentioned as it issued a veto threat for the measure last night.) The Senate measure for energy and water would allow for alternative sites, such as the private alternative proposed in Texas.

Reid's retirement announcement emboldened Yucca supporters, but the leading contenders in the race to replace Reid in the Senate are inclined against the possibility of locating a permanent repository there, as does Sen. Charles Schumer, the favorite to lead the Senate Democrats next year, Bloomberg BNA's Brian Dabbs [reports](#). With Reid gone, Yucca is sure to get more debate and consideration, but a congressional about-face looks unlikely. Rep. Joe Heck, the Republican who is the likely Republican contender for Reid's seat, criticizes the debate around Yucca, but leaves the possibility of siting the waste repository in Nevada open, BNA reports. "Yucca Mountain represents more than three decades of failure to find a solution to a serious problem—nuclear waste storage," Brian Baluta, Heck's communications director, told Bloomberg BNA. In 2015, Heck introduced legislation, alongside Reid, to force consent from a state governor, local jurisdictions and affected Indian tribes for siting a permanent repository anywhere.

Savannah River National Lab puts science to work

Aiken Standard

May 24, 2016

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It is an exciting time for Aiken, especially Aiken's academic world.

The Savannah River National Laboratory chose Aiken to build its latest research facility, a 70,000-square-foot Advanced Manufacturing Collaborative that will be a part of SRNL, to be built on the USC Aiken campus.

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Paducah EM SSAB Meeting

August 2016

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Third Annual
Intermountain
Energy Summit
Idaho Falls, ID
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September 2016

14-15

2016 National Cleanup
Workshop
Hilton Alexandria Mark
Center
Alexandria, VA
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November 2016

16-18

2016 Intergovernmental
Meeting
New Orleans, LA

Dr. Terry Michalske said the new Advanced Manufacturing Collaborative will be offer an alliance between industry, academia and government, “Where we can work without all the labels and badges and just share ideas.”

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SRNL Director Dr. Terry Michalske spoke to the Aiken Rotary Club on Monday about the exciting things going on with the National Lab and what it would mean to Aiken.

“The Savannah River National Laboratory puts science to work to create and deploy practical, high-value, cost-effective technology solutions,” he said. “The new Advanced Manufacturing Collaborative facility will be the perfect place where academics, industry, and government can work without all the labels and badges, and just share ideas.

While the Advanced Manufacturing Collaborative facility will be located on the USC Aiken campus, USCA will not own the facility, according to sources. The facility will be located on the USCA campus but the Aiken Advanced Manufacturing Partnership, which is a subsidiary of the Economic Development Partnership, will own the building. The National Lab will lease space from Aiken Advanced Manufacturing Partnership, who will lease the ground from USCA.

“We can’t do this from behind the fence,” Michalske said. “We’re very excited about where all this is going. We’re excited about it and we hope the community is, as well.”

There are some very smart people working at Savannah River Site, Michalske said. A workforce of 940 very smart people.

“What we do is try to help our nation get through its biggest problems. We never want to be second when it comes to our nuclear deterrent.”

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Michalske said in winning the Cold War, the U.S. generated a lot of nuclear waste. “It’s threatening the health of our people and threatening the stability of our environment. We spent \$150 million so far and we have quite a long ways to go in taking care of this waste. We need to find a way to spend our money more cheaply and in a shorter amount of time.”

There are people out there making a real difference.

“We’re working to find out how to keep these dangerous materials from spreading throughout the world and to keep these materials stay in safe hands,” Michalske said. “We now have a permanent task force helping the Japanese government in the aftermath of the Fukushima disaster.”

Not all SRNL’s solutions are world savers. Some save money, too.

“There are more than 200,000 cellphone towers in the U.S.,” Michalske said. “Each tower is held up by guy-wires, which are basically tension wires that add stability to a free standing structure. Currently it costs more than \$1,000 to excavate each support base at a cellphone tower to test and inspect the cell tower’s stability.

“At the SRNL, we figured out a way to do this thousand dollar test for ten bucks,” he said.

This new Advanced Manufacturing Collaborative laboratory space will help promote partnerships between industry, academia and government in the creation and implementation of new technology. The planned site property is owned by USC Aiken and is located near SRNL. The new lab will include chemistry labs, engineering fabrication labs, high bay and industrial work space and staff offices, Michalske said.

“We look forward to creating a more open environment for collaborative research and development in areas such as process intensification, smart manufacturing, cyber, virtual simulation, and advanced robotics,” Michalske said. “This space will allow SRNL to build the future of innovation. By thinking creatively, we can more

effectively partner our talent with industry and academia to address a multitude of technology needs.”

Dan Brown is the city government reporter for the Aiken Standard.

PACRO mulls how to spend USEC assets

Paducah Sun

May 24, 2016

[LINK](#)

As the designated recipient of surplus assets coming from the U.S. Department of Energy's Paducah Gaseous Diffusion Plant, the Paducah Area Community Reuse Organization faces several challenges.

They include complying with the myriad governmental, environmental and procedural rules that accompany the task of identifying and transferring assets related to the ongoing deactivation of the site.

PACRO also has to find a fair way to see its nine member counties benefit from efforts to mitigate job losses from the plant's shutdown and share in whatever economic development opportunities are identified for the region.

Following some discussion along those lines at its meeting last week, a five-person committee was established to look at ways those goals can be achieved.

A request for funding from Carlisle County Judge-Executive Greg Terry sparked discussion about concerns over setting a precedent for future use of funds and adhering to the organization's mission.

Terry would like PACRO to fund a planned study focusing on economic development possibilities in west Kentucky's four Mississippi River counties -- Ballard, Carlisle, Hickman and Fulton. The study will cost \$84,000, with each county responsible for \$21,000.

It will be conducted by Civic Pointe Group, an organization providing professional services and data to nonprofit groups and local governments, and will look at opportunities such as establishing a riverport at the site of the recently shuttered Verso paper mill in Wickliffe.

Terry maintained the study would help the four river counties that have lost a number of jobs from the Verso plant shutdown and other closings, including jobs lost when uranium enrichment operations ceased at the DOE site. The study would also help with economic development in the entire region.

"Anything that would be done in that study would have to move on up the river (in terms of benefits), it wouldn't be just those four counties," Terry said.

Scott Darnell, president/CEO of Paducah Economic Development, which is contracted to oversee PACRO, expressed concern about setting a precedent for the future. He said money from the transfer of assets, like the estimated \$100,000 to \$160,000 (half of which to be returned to the U.S. treasury) from the sale of 10,000 to 16,000 tons of coal from the site, is only now beginning to come in.

He said it was always understood that as the board started selling surplus assets, it would discuss whether to continue to put up money for its revolving loan fund or use it for other things.

"I think it's responsible to have that discussion now that asset money is coming in, how is that money used and how it's fair," Darnell said.

PACRO was seeded with approximately \$10 million from the federal government. After the federal funding stream halted in 2006, the organization switched from providing grants to issuing loans to help support economic development in its counties.

Today, the revolving loan fund has approximately \$3.6 million with several remaining outstanding industrial and entrepreneurial notes.

Paducah Mayor Gayle Kaler, PACRO board chair, noted the main intent of the organization's funding has always been to mitigate job losses at the gaseous diffusion plant, and that specific guidelines exist for how the money can be spent.

"Once we start getting more of the recycled materials from the plant site, we probably can be more flexible with what we do with that money," Kaler said. "I think there needs to be a consensus from the board on how we move forward, what we do with those asset transfers."

Mark Manning, PACRO board member from Calloway County, added: "I think the one thing we can all agree on is whether it's PACRO, the regional industrial park or anything else, we have very limited resources. And as a result we all want to make sure the limited resources can bring us the biggest bang for the buck.

"What I'm hearing is that it's time to start putting a process in place for when we have assets coming in that can be allocated for different projects," he said.

Colorado and nation face 70,000-ton nuclear waste burden

Denver Post

May 24, 2016

[LINK](#)

The federal government stepped up efforts to deal with the nation's growing, heavily guarded stockpiles of nuclear waste Tuesday, convening westerners in Denver to search for a path to a locally accepted site somewhere for deep burial.

That radioactive waste — 70,000 tons, increasing by 2,000 tons a year — comes from nuclear power plants that provide one-fifth of the electricity Americans use, twice the share the wind power industry expects to provide by 2020. More nuclear waste comes from nuclear weapons. Decades of failure to find a central disposal site has backed up spent fuel at 99 commercial plants and 14 shut-down plants,

including Fort St. Vrain north of Denver, and forced the government to pay utilities \$4 billion as court-ordered compensation.

The Fort St. Vrain plant, closed as a nuclear facility in 1989 because of operational problems, was reopened in 2001 as a natural-gas-fired power plant. The Fort St. Vrain plant, closed as a nuclear facility in 1989 because of operational problems, was reopened in 2001 as a natural-gas-fired power plant.

Denver Post file

“It makes sense to deal with this now instead of kicking the can down the road,” acting Assistant Energy Secretary for Nuclear Energy John Kotek said in an interview before Tuesday’s session.

“At a minimum, it is about responsibly dealing with waste that was generated for our benefit. We’ve benefited from the electricity. We benefited from the nuclear deterrence.”

U.S. officials are acting as China and other nations construct nuclear plants as a cleaner source of energy to meet obligations under the International Climate Change Treaty. Nuclear plants don’t emit carbon dioxide and other heat-trapping gases that scientists blame for global warming. A new U.S. plant is nearly complete in Tennessee. Four more are planned in Georgia and South Carolina.

The Department of Energy is providing \$40 million to spur efforts to design smaller “modular nuclear reactors” that could provide greenhouse gas-free electricity with less risk of the nuclear disasters seen in Japan, Chernobyl and at Three-Mile Island.

Other nations relying heavily on nuclear energy, such as Sweden and Finland, also are working toward deep burial of radioactive nuclear waste, a task for which the United States has stashed \$30 billion.

“We’re certainly trying to do all we can to keep the options open,” Kotek said. While enabling more nuclear power as part of the nation’s electricity grid “is not the

primary purpose” of the government-led forums in Denver and other cities, he said, “having a waste disposal path would make nuclear more acceptable ... It’s really essential to have state-level buy-in.”

For 22 years, federal officials worked toward central disposal at Yucca Mountain in Nevada. Nevada politicians opposed the project. President Obama in 2009 declared Yucca Mountain an unworkable solution.

A federal commission for dealing with spent fuel, including current Energy Secretary Ernest Moniz, in 2013 hatched a new strategy that prioritized seeking local consent for a “deep-mined geological repository.”

Tuesday’s forum in Denver, drawing about 50 participants ranging from former Wyoming Gov. Mike Sullivan to anti-nuclear group members, followed sessions in Chicago, Atlanta and Sacramento. After a final session July 21 in Minneapolis, energy officials said they will launch a process for winning community support.

Local resistance to nuclear waste remains fierce. The recent plans to drill an exploratory bore hole three miles deep under North Dakota were scuttled this year as residents objected. Federal energy officials say they’re now looking at bore hole sites in South Dakota to test geological conditions.

“There’s no waste involved. ... It is just to determine if it would be feasible,” DOE spokeswoman Alisa Trunzo said.

The only nuclear power plant in Colorado operated from 1979 to 1989 at Fort St. Vrain, 40 miles north of Denver near Platteville — a center for Colorado’s oil and gas drilling boom. Xcel closed this gas-cooled reactor in 1989 after facing technical difficulties. Federal armed guards lugging machine guns patrol the spent fuel, stored behind barbed wire in a special concrete building encased in protective casks.

Some of the Colorado nuclear waste moved by truck to a facility in Idaho until Idaho’s governor refused to accept it. Today, more than 14 tons remains at Fort St. Vrain.

The power plant still runs, converted to natural gas. Xcel has no plans to generate electricity in Colorado using nuclear power, utility spokesman Mark Stutz said. “Our trend in recent years has been more toward the development of wind and solar.” However, Xcel operates three nuclear power plants in Minnesota.

Forums in Denver and seven other cities are designed to give federal officials a sense of what matters most in communities where leaders might want to embark on nuclear waste disposal. It would be done deep underground, where rocks conditions are right to isolate the radioactive waste for hundreds of years.

“We’re not at all at the stage of looking at locations,” Kotek said. “We’re developing a process. What matters to people? What do they think is important? Are benefits going to be the driver?”

Some participants have indicated an interest in developing their communities as hubs for scientific research and development.

Guarding the spent fuel at 113 locations is expensive. Energy officials said waste is stored in different ways at each site and eventually would have to be re-packaged for safety. Federal regulators have said the waste in Colorado can stay until at least 2030, or until a permanent disposal facility is built.

Reprocessing spent nuclear fuel can yield valuable materials

Idaho Statesman

May 24, 2016

[LINK](#)

Since the early 1970s, the U.S. government has spent billions of dollars to find a suitable site for a geologic repository to hold high-level radioactive waste. It’s time to consider a new approach that would substantially reduce the amount of nuclear waste yet increase the financial rewards for a state willing to host the facility.

Reducing the amount of nuclear waste might seem impossible, but it's not. Often mistaken for nuclear waste, spent fuel that's being stored at nuclear power plants around the country contains plutonium and other valuable nuclear materials that can be chemically recovered to produce new fuel for use in reactors to generate more electricity. Such reprocessing was done in the U.S. until it was discontinued for economic reasons during the Ford administration and then banned by President Jimmy Carter because he contended it could lead to the spread of nuclear weapons.

Several European countries continued reprocessing their spent fuel — and have demonstrated that it can be done proficiently under international safeguards. There have been advances in reprocessing technology that greatly reduce the risk of plutonium diversion.

With concern over climate change, increasing the production of carbon-free electricity by reprocessing would be in everyone's interest. Reprocessing would substantially reduce the amount of high-level waste that cannot be recycled and would need to be disposed of in a geologic repository. Since there is a limit on the amount of waste that a repository can hold, reducing the stocks of spent fuel at nuclear plants is essential.

In addition to spent fuel, a geologic repository — like the one that was being developed at Yucca Mountain in Nevada until the current administration suspended work on it — would need to hold high-level waste from both the commercial production of electricity and the military program. Currently, there are about 100 million gallons of high-level waste in tanks at the Hanford Site in Washington state and the Savannah River Site in South Carolina, and less than 1 million gallons here at the Idaho National Laboratory.

Those who maintain that a reprocessing facility would be too costly ignore that more than \$30 billion, including interest, has been paid into the Nuclear Waste Fund since 1982. Some of these funds could be earmarked for construction of a reprocessing facility.

Such a facility, if situated near an interim storage site for spent fuel, would offer the sort of financial incentives to convince a state government and local communities to host it. There would be thousands of well-paid construction jobs and permanent jobs for plant operators as well as revenue.

Nuclear reprocessing isn't a problem. It's part of the solution.

Its revival could help break the political stalemate over nuclear waste disposal.

Roger Mayes is a retired scientist and manager from the Idaho National Laboratory with advanced degrees in environmental and radiological sciences. He is a past chair and current board member of the Idaho Section of the American Nuclear Society.

