

## ECA Update: August 21, 2015



### *In this update:*

#### **Peters named new director at INL**

*Idaho Statesman*

#### **Guest Opinion: Say ‘Yes’ to powering Idaho’s future at INL**

*Idaho Statesman*

#### **Idaho senator calls for action on nuclear waste**

*AP: KTVB*

#### **Small nukes: a long-term prospect for Tri-Cities?**

*Cross Cut*

#### **Maintenance Schedule Re-Evaluations Save Thousands of Dollars, Hours At SRS**

*WJBF*

#### **Nuclear regulators slate Maryland, Nevada meetings on Yucca Mountain radioactive waste dump**

*AP: Daily Journal*

#### **Guest column: Hanford’s fascinating past, future**

*The Daily Astorian*

#### **Peters named new director at INL**

*Idaho Statesman*

August 20, 2015

[LINK](#)

IDAHO FALLS — Mark Peters, former associate laboratory director for the Argonne National Laboratory in Illinois, has been named the new director of the Idaho National Laboratory and will begin his new role on Oct. 1.

Ron Townsend, Chair of Battelle Energy Alliance’s (BEA) Board of Managers Ron Townsend made the announcement Thursday.

“Mark’s recognized leadership in all fields of energy research — including energy storage, renewable energy, energy

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### Events of Interest

[Oak Ridge EM SSAB](#)

[Meeting](#)

August 22, 2015

[Paducah EM SSAB](#)

[Meeting](#)

August 27, 2015

[Hanford EM SSAB](#)

[Meeting](#)

September 9-10

[DOE National](#)

efficiency and nuclear energy — and national security makes him an ideal choice as the next Lab Director of INL,” said Townsend, who also serves as Battelle Executive Vice President of Global Laboratory Operations. “As the leading research institution for nuclear energy solutions, other clean energy options and critical infrastructure, INL will benefit from the strong leadership and passionate commitment that Mark has demonstrated throughout his career.”

At Argonne Peters served as associate director for the lab's Energy and Global Security Directorate, which includes Argonne's programs in energy research and national security. As a recognized expert in nuclear fuel cycle technologies and nuclear waste management, Peters is called upon frequently to provide expert testimony to Congress and to advise in formulation of policies for nuclear fuel cycles, nonproliferation and nuclear waste disposal.

Peters is active in leadership positions with the American Nuclear Society and was recently named an ANS Fellow, the highest honor bestowed by the Society.

“I've had the opportunity to work with Mark on globally significant nuclear energy matters and am pleased to welcome him to Idaho,” said John Kotek, the U.S. Department of Energy's assistant secretary for Nuclear Energy. “I look forward to our continued collaboration when he is in his new role as director of INL.”

Peters earned his doctorate in geophysical sciences from the University of Chicago and his bachelor's degree in geology from Auburn University. He has also received extensive management and leadership education and training, including completion of the Strategic Laboratory Leadership Program at the University of Chicago Booth School of Business. His full bio and a portrait photo are available online at <https://www.inl.gov/mark-peters-bio>.

Peters succeeds John Grossenbacher as INL laboratory director. Grossenbacher announced in November 2014 that this would be his last year as INL laboratory director. He led the BEA bid that was awarded the contract to manage and operate INL in February 2005. Under Grossenbacher's leadership, INL transformed into a leading laboratory recognized nationally and internationally for its research programs and capabilities as well as the value of its applied research and development programs to sponsors across academia and industry.

## Cleanup Workshop

September 29th-30th,  
2015

*The Key Bridge  
Marriott  
Arlington, VA*

“John’s service as INL lab director has had a tremendous impact on the success and growth of the laboratory, and I join the energy community in thanking him for his strong leadership and vision,” said Kotek.

**Guest Opinion: Say ‘Yes’ to powering Idaho’s future at INL**

*Idaho Statesman*

August 17, 2015

[LINK](#)

For months I have watched with growing concern as some former Idaho governors and the attorney general have quibbled over the future of nuclear research in Idaho. There is nothing positive about this power struggle. While they talk, Idaho’s National Laboratory is put at risk. I can only conclude that they do not understand. Perhaps Eastern Idaho can lend some perspective.

The proposed spent-fuel research would be conducted by the Idaho National Laboratory, a first-rate national laboratory that attracts the best and brightest researchers, scientists and engineers from around the world. This research involves examining a small quantity of spent nuclear fuel.

Research on spent fuel samples could mean up to \$20 million annually for the Idaho economy. Here is reality: If this research is not conducted at INL, it will be conducted somewhere else, likely at a lab in Oak Ridge, Tenn. That is a lot of jobs and economic activity we may never see.

More significantly, conducting the research here at the nation’s “Lead Nuclear Lab” would cement the status of INL, and Idaho, as an international leadership hub for clean energy technology. Sending the research elsewhere places our lab’s leadership role at risk. It would be naive to think that other laboratories throughout this nation don’t covet our title of “Lead” Nuclear Lab. It would be foolish to forfeit this asset.

Some argue not to allow this fuel into Idaho. They’ve employed decades-old arguments once successfully used to encourage rigorous cleanup of nuclear waste in the 1990s. But to be clear: today’s discussion is not about storage; it is about research. The small amount of spent fuel needed to conduct the research is not waste. It is educational material. No one intends to store it; they intend to study it.

An emphasis on waste in this discussion fundamentally misunderstands INL's research role and truly undervalues it. Cold-war-era waste cleanup and present-day laboratory research are vastly different. INL's research mission was firmly established when DOE separated INL from cleanup in 2005. To move forward, Idaho must follow the lead of other labs like PNNL, which runs its operations separately from Hanford. PNNL's research is not intertwined with the cleanup milestones of Hanford. Likewise, we should let INL flourish responsibly and formally delink INL's research mission from the site's cleanup responsibilities. Idaho's outdated settlement intertwines these missions and thereby hinders the blossoming of a robust, tech-based economy in Idaho.

Perhaps some don't understand that all kinds of energy technologies are researched at the Lab — biomass, wind, batteries, geothermal, etc. Perhaps they don't understand that the lab's research mission will encourage the responsible stewardship of our environment and natural resources. Maybe they do not see how Idaho will benefit from more well-paying careers. Perhaps they do not appreciate the significance of global energy leadership.

The clock is ticking. Idaho officials know that the DOE must make a decision about the research within the next 30 days. Now is the time for informed state leaders to rise above the politics and say "Yes" to this vital research. "Yes" to clean energy research funding. "Yes" to strengthening our role as a global energy innovation hub. "Yes" to powering Idaho's future.

Rebecca Casper is the mayor of Idaho Falls and a member of the LINE2.0 Commission.

### **Idaho senator calls for action on nuclear waste**

*AP: KTVB*

August 20, 2015

[LINK](#)

IDAHO FALLS -- Idaho Sen. Jim Risch used a recent energy meeting to call on the state to take action on two proposed shipments of spent nuclear fuel.

The Post Register reports that Risch said at Tuesday's Intermountain Energy summit in Idaho Falls that the shipments bound for Idaho National Laboratory still haven't been approved.

Department of Energy officials say at least one of the shipments needs to be approved within about a month or it could be sent elsewhere.

But Idaho Attorney General Lawrence Wasden has banned the shipments until a radioactive waste treatment facility is up and running.

Risch says that if Idaho doesn't accept the shipments, another state will. He proposed a special meeting between six officials to hash out whether the state can accept the fuel.

### **Small nukes: a long-term prospect for Tri-Cities?**

*Cross Cut*

August 18, 2015

[LINK](#)

The Tri-Cities face a good wait before learning whether the area could be home to a new nuclear enterprise.

The designers of the nation's first small modular reactors are expected to decide in about two years whether Washington is a good place to build a plant for manufacturing reactors' components to assemble elsewhere.

NuScale of Corvallis, Oregon, is looking at several states scattered across the nation as potential manufacturing sites. The prime manufacturing site will likely be a place near where utilities are ordering a significant number of small modular reactors, said Mike McGough, NuScale's chief commercial officer.

The Tri-Cities area hopes it will attract a manufacturing plant. And the Tri-Cities hopes to attract at least one small modular reactor to a partly-built reactor site in southern Hanford.

But numerous questions must be addressed before the nuclear-oriented Tri-Cities will know whether it will get either a small modular reactor or a manufacturing plant.

Recently, the state Legislature approved allocating \$176,000 to have the Washington Energy Facility Site Evaluation Council study potential sites for individual small modular reactors in the state — with southern Hanford next to the Columbia Generating Station being a likely frontrunner. That report is due in December.

Meanwhile, a bill by Sen. Sharon Brown, R-Kennewick, to study putting a manufacturing plant in the same location has stalled in the House. The Senate easily passed it, and it received strong bipartisan support from the House Technology & Economic Development Committee before ending up in the end-of-session limbo that stopped numerous bills. Brown plans to revive the bill in the 2016 session.

Actually, economics and proximity to buyers will probably be the deciding factors on where NuScale will build both individual small modular reactors and its manufacturing plant, said McGough and John Dobken, spokesman for Energy Northwest (a consortium of Washington public utilities, including Seattle City Light).

Small modular reactors are prefab reactors whose parts are manufactured in one location, and then transported to the reactor site for final assembly. A modular segment would be a mini-reactor of 50 to 300 megawatts. Energy Northwest's Columbia Generating Station, a nuclear plant, produces more than 1,190 megawatts of electricity, equal to about a tenth of the state's energy needs. Small modular reactors are supposed to be designed so extra modules can be added as needed — with 12 modules being the theoretical maximum. They are similar to the small reactors that operate on U.S. Navy ships.

The initial cost estimate to take the project from design to the first Idaho Falls reactor is roughly \$1 billion. In recent years, the deep-pocketed global giant Fluor Corp. bought NuScale.

NuScale, Energy Northwest, the Utah Associated Municipal Power Systems (a Utah version of Energy Northwest) and the U.S. Department of Energy facility at Idaho Falls have agreed to build the first such reactor in Idaho by 2023. NuScale plans to submit its design to the Nuclear Regulatory Commission by late this year, hoping for a green light about 40 months later.

Rep. Gerald Pollett, D-Seattle and a leading Northwest nuclear power critic, said, "Talking about siting such a thing is premature."

Critics cite the lack of any track record on cost or safety for small modular reactors, plus concerns over the nation's lack of a permanent place to store used nuclear fuel. No one has built a commercial small modular reactor yet, although supporters contend they are similar to the small reactors that operate on U.S. Navy ships.

Energy Northwest's interest in getting its own small modular reactor will depend on if and when Energy Northwest's member utilities will need extra power. At this time, the consortium does not expect that need to grow for the next few years, Dobken said.

Another wrinkle is that a 1981 state law requires that a public utilities group conduct a public ballot on any significant energy generation project that is likely to increase utility rates. Consequently, a public vote stretching from Seattle to Kennewick could lurk in the future of a small modular reactor project if Energy Northwest's rates might be affected.

Chuck Johnson of the nuclear watchdog organization Physicians for Social Responsibility voiced concern about a scenario in which a single 50-megawatt reactor module would fall beneath the ballot threshold of the 1981 Washington law, and the addition of 50-megawatt modules one at a time could keep a state project below that public-vote benchmark.

Tri-Cities interests hope to attract mass production of small modular reactors to the never-finished Energy Northwest reactor site at the Hanford nuclear reservation. This is the former Washington Public Power Supply System Reactor No. 1, whose construction was abandoned because WPPSS defaulted on the bonds to build it. Since then, WPPSS changed its name to Energy Northwest, and the completed WPPSS Reactor No. 2 was renamed as the Columbia Generating Station.

"We're big on the technology and believe the technology should be made available," Dobken said.

Such a manufacturing plant would need about 1.9 million square feet of space, employ about 1,000 people and would aim to produce 36 to 52 modules a year, McGough said. NuScale is looking at Hanford, the Southwest, Utah and several Midwest, Southern and Eastern seaboard states as potential manufacturing sites.

"The site is still up in the air. ... It depends on who shows up with the orders first," McGough said.

Gary Petersen, an official with the Tri-Cities Industrial Development Council, said the Tri-Cities area is interested in providing a home for the proposed manufacturing plant. He pointed to the nuclear expertise of the local workforce, the receptivity of the local population to such a project and the fact that

a southern Hanford site has easy access to railroad and barge transportation.

### **Maintenance Schedule Re-Evaluations Save Thousands of Dollars, Hours At SRS**

*WJBF*

August 18, 2015

[LINK](#)

Aiken County, SC – A Continuous Improvement project to review preventive maintenance (PM) activities in the Savannah River Site's Savannah River Tritium Enterprise (SRTE) is producing over \$606K in savings by revising PM schedules to better align with actual requirements and needs.

So far this fiscal year, SRTE has completed 26 Continuous Improvement projects that have already resulted in \$4.6 million in validated savings, far surpassing the total savings from any previous year.

SRTE includes all of the people, facilities and activities at the Savannah River Site that are involved in work with tritium, the radioactive form of hydrogen that is a necessary component in the nation's nuclear defense.

SRTE's work is managed for the National Nuclear Security Administration by Savannah River Nuclear Solutions (SRNS).

### **Nuclear regulators slate Maryland, Nevada meetings on Yucca Mountain radioactive waste dump**

*AP: Daily Journal*

August 20, 2015

[LINK](#)

LAS VEGAS — The federal agency reviewing plans for the long-stalled Yucca Mountain national nuclear waste dump in Nevada has set dates and places of public meetings about revisions to an environmental report.

The Nuclear Regulatory Commission announced Friday that it'll hold a Sept. 3 meeting from 3-5 p.m. Eastern time at NRC Headquarters in Rockville, Maryland.

Meetings will be held Sept. 15 at the Embassy Suites Convention Center in Las Vegas, and Sept. 17 at the Amargosa Community Center in Amargosa Valley, Nevada. Both will be from 7-9 p.m. Pacific time.

On Oct. 15, NRC staff will conduct a public conference call from 2-4 p.m. Eastern time.

NRC officials also plan a public conference call at 11 a.m. next Tuesday, Pacific time, to explain how to submit comments about the environmental report.

**Guest column: Hanford's fascinating past, future**

*The Daily Astorian*

August 20, 2015

[LINK](#)

Hanford's environmental legacy is profound, says an Astorian who toured the nuclear reservation.

I was 9 years old when the Japanese struck Pearl Harbor. Seventy-five years later, within days of the anniversary of the dropping of the bomb on Nagasaki, I visited the Hanford nuclear site where the federal government developed the atomic energy that ended World War II and thereafter fueled the Cold War.

The environmental aftermath of those efforts is staggering.

The liquefied natural gas ruckus here at the mouth of the Columbia is but a spit in the ocean compared to the cleanup efforts of old nuclear reactors, 300 miles upriver from Astoria. Even after 75 years, the site is by far the largest Superfund site in America. The Department of Energy's current estimate of when the site will be cleaned up? Incredibly, not until 2060!

The Hanford nuclear site is no secret. But few know about the federal government's cleanup project, which has gone on for decades and, so far, has cost trillions. Half of the project's \$2 billion annual budget is going into the construction of a treatment plant for decades-old radioactive waste. This construction project is the largest in the United States and when completed years from now will have cost over \$12 billion! And that's only one Hanford construction project that deals with atomic waste.

A recent Columbia Forum program (Anna King of Northwest Public Radio) piqued my curiosity about Hanford. I went to the site feeling suspicious, concerned about the site's proximity to the Columbia River, and with visions of inefficiencies of a large bureaucratic federal government enterprise. I left with feelings of awe about the remarkable engineering and use of new technology, a sense of relief to find the river well protected, and to discover the waste-treatment activity is conducted mostly by dedicated private contractors. The original nuclear reactor, one of the first in human history, is a National Historic Landmark.

The National Park Service and the Department of Energy are reviewing a draft proposal to create a Manhattan Project National Historical Park, of which Hanford would be a component.

You know something's up when you're driving on a six-lane highway in the middle of nowhere in the high desert outside of Richland, Wash. I counted 10 traffic lanes at one intersection. The traffic early in the morning rivaled Portland's rush hour, and indicated the thousands of people working at the site — which covers 586 square miles with 500 miles of paved highway.

The tour bus that my wife, Carol, and I took traveled 100 miles on paved roads over a five-hour period. Our tour guide was a physicist who retired after 30 years working for contractors at the site. His dedication to the mission of the facility and his knowledge of its history and operation was fascinating.

The highlight of the tour was Reactor B, the world's first successful nuclear reactor for plutonium-239. In those frantic wartime days of the early 1940s, the United States raced Nazi Germany to build "the Bomb," considered at the time to be the ultimate weapon. Fortunately, Germany surrendered before its nuclear reactors went online.

America's first controlled nuclear reaction occurred at the Stagg Field laboratory in Chicago in 1942. America's first nuclear production facility built at Oak Ridge, Tenn. produced enriched uranium and made enough plutonium for the bomb that devastated Hiroshima in 1945. Since World War II, the Oak Ridge facility is used only for scientific research.

The country's second nuclear production facility, also established in 1942, is at Hanford, Wash., right alongside the Columbia River.

President Roosevelt approved the Army's top secret choice of the Hanford site as part of the WWII's top secret Manhattan Project because of its very low rainfall (6 inches per year), its deep aquifer (at least 240 feet), the available cold water of the Columbia River needed to cool a reactor and the very sparse population.

Hanford's Reactor B produced enough plutonium to make three bombs — one for the initial test at Los Alamos in 1945, one that was dropped on Nagasaki, and a spare that was not needed when Japan unconditionally surrendered.

The federal government's intent to rid the site of radioactive contamination as soon as World War II ended was never realized. Almost immediately the Cold War with Russia began and Hanford's expansion began instead.

From 1946 until 1987, nine nuclear reactors and five plutonium processing complexes to manufacture weapons-grade plutonium-239 were built and operated. The facility furnished fissionable material for many thousands of atomic weapons. It was not until 1987, during the Reagan era, that the Cold War ended and the government shut down the last Hanford reactor. The radioactive cleanup then began in earnest.

To me, the most fascinating part of the cleanup effort at Hanford is the multi-billion dollar vitrification plant now under construction. The plant's process will solidify the liquid radioactive waste now stored in 177 aging underground tanks by encapsulating the radioactive waste in a form of glass that cannot be absorbed into the air or into the aquifer. The glass modules will then be placed underground and left for the many thousands of years it takes for the material to become harmless. Our physicist tour guide told me with a wry smile that even the glass modules will have to be addressed "someday."

Representatives of governments from around the world travel to Hanford to learn about the cleanup of nuclear waste. A week after we took the tour, a group of scientists from Japan is scheduled for the same tour.

Public tours of the Hanford site are free, but space is very limited. Reservations can be made at the U.S. Department of Energy's public tour of Hanford website: <http://1.usa.gov/1TCenUc>

Don Haskell served on the Clatsop County Board of Commissioners, 1991-1995. After retiring from a Chicago law career, Haskell and his wife moved to Astoria in 1988.

Hanford is by far the largest Superfund site.

