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May 2016

McConnell moves to wrap up energy appropriations bill

The Hill

April 25, 2016

[LINK](#)

Majority Leader Mitch McConnell (R-Ky.) is moving the Senate toward wrapping up its first appropriations bill of the year.

The Senate Republican leader filed cloture Monday on the energy funding bill and a substitute amendment. The move sets up an initial procedural vote for Wednesday, unless lawmakers can get a deal to speed up their work.

Leadership is hoping to clear the energy and water appropriations bill through the upper chamber this week.

Sen. Lamar Alexander (R-Tenn.) said on Monday evening that senators are making "good progress" on the legislation.

"We hope to continue to do that and wrap the bill up soon," added Alexander, who has been managing the appropriations bill for Republicans.

Senators approved an amendment from Sen. Patty Murray (D-Wash.) on Monday evening and are currently scheduled to vote on three additional amendments Tuesday morning.

Alexander and Sen. Dianne Feinstein (D-Calif.) also cleared eight amendments by voice vote Monday.

While the funding bill has managed to avoid partisan landmines in the Senate, it's garnered a veto threat from the White House.

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EM SSAB Nevada Meeting

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September 2016

14-15

2016 National Cleanup Workshop
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"The bill underfunds critical energy research and development activities and fails to put us on an achievable path toward doubling clean energy research and development by [Fiscal Year] 2021," the Office of Management and Budget said in a statement.

The Senate's fiscal 2017 bill increases funding by \$355 million over 2016 levels. That includes a \$1.163 billion increase for the Department of Energy's defense-related programs but an \$808 million decrease for the nondefense portions of the bill.

Democrats, however, have given no indication they're willing to oppose the legislation because of the White House's concerns.

Majority Leader Mitch McConnell (R-Ky.), referring to the bipartisan support for the bill, said that with "continued cooperation we'll have an opportunity to pass the first of these bills on the floor this week."

The Senate Republican leader has repeatedly said his top goal for 2016 is to pass the 12 appropriations bills.

If the Senate passes the legislation, it will still need to be merged with a House-version of the bill. House lawmakers can't take up spending bills until May 15 unless they first pass a budget.

Facing difficult questions at the Manhattan Project's Hanford Site

LA Times

April 24, 2016

[LINK](#)

On our last family road trip to the Pacific Northwest, my wife and I drove a big loop with our daughter, then 6. We hit Seattle and the Canadian provinces of British Columbia and Alberta.

On the way south toward Portland, we stopped at Walla Walla in southeastern Washington. Nice people, pleasant wineries.

At no point did I think, "Wait! We're only two hours from the cradle of the atomic bomb!"

But now that I've spent a few days nosing around the Hanford Site of the new Manhattan Project National Historical Park — and now that my daughter is nearly 12 — I think differently.

Hanford, Wash.

I'd like to do that drive again and add the Hanford B Reactor (100 miles west of Walla Walla) to the itinerary. This is the reactor that made the plutonium that powered the bomb the U.S. dropped in 1945 on Nagasaki, Japan. The National Park Service and Department of Energy are working together now to reinvent the site as a sort of classroom, a place that will get families talking about World War II, the Cold War, physics, teamwork, politics, morality and perspective.

Wait, some readers may be tempted to say. If this is a national park unit, shouldn't there be a waterfall somewhere?

Actually, no. Alongside its dozens of vast beauty spots, the National Park Service operates a growing number of parks and monuments that are more about education than recreation.

Every one of the agency's Civil War battlefields raises questions just as grave as those found at Hanford. Then there's the national monument at Pearl Harbor, where Japan's attack forced this country into World War II, and Manzanar National Historic Site, where the U.S. confined Japanese Americans for the duration of that war.

The history of nuclear weapons

"Nuclear weapon" is broad term for any weapon involving a reaction among atomic nuclei. An atomic bomb is one kind of nuclear bomb; a hydrogen (or thermonuclear) bomb is another kind that's more powerful.

1939

As World War II begins in Europe, physicist Albert Einstein hears whispers that Nazi Germany may be building the first atomic bomb. He sends a letter to President Franklin Delano Roosevelt suggesting the U.S. mount an atomic effort of its own. Roosevelt replies but does nothing.

1941

Japan bombs U.S. Navy ships in Pearl Harbor, Hawaii, drawing the U.S. into the war. About the same time, Roosevelt authorizes the Manhattan Engineer District, later known as the Manhattan Project, a team of scientists working on an atomic bomb.

1943

Manhattan Project construction begins at Hanford, Wash.; Oak Ridge, Tenn.; and Los Alamos, N.M.

May 7, 1945

Germany surrenders to the Allies, having failed to develop an atomic bomb.

July 16, 1945

The Trinity Test in Alamogordo, N.M., detonates a plutonium-powered bomb, the world's first atomic bomb detonation.

Aug. 6, 1945

Authorized by President Harry S. Truman, a U.S. B-29 drops an atomic bomb nicknamed "Little Boy" on Hiroshima, Japan. The bomb's uranium core, fabricated in Oak Ridge, unleashes a 12.5-kiloton explosion, killing an estimated 140,000 people in 1945 and 60,000 more in the next five years.

Aug. 9, 1945

A U.S. B-29 drops a second atomic bomb — plutonium-powered and nicknamed "Fat Man" — on Nagasaki, Japan. The weapon unleashes a 22-kiloton explosion, killing an estimated 70,000 people in 1945 and 70,000 more in the next five years.

Aug. 15, 1945

Japan announces its surrender, ending World War II. Later, many public officials and historians assert that the bombs hastened the war's end, saving hundreds of thousands of lives that would have been lost in a ground invasion of Japan.

Others say Japan was on the brink of surrender because of Russia's Aug. 8 declaration of war against Japan.

1949

Soviet Union detonates its first atomic bomb.

1952

Britain tests its first atomic bomb in Australia.

1960

France conducts its first nuclear test in the Sahara Desert in Algeria.

1964

China explodes its first atomic bomb.

1968

The five "nuclear club" nations agree not to transfer nuclear weapons technology to non-nuclear nations. Passing along nuclear energy technology is another matter, permitted with inspections by the International Atomic Energy Agency.

May 1998

India and Pakistan conduct nuclear weapons tests.

2016

The U.S., Russia, Britain, France, China, India, Pakistan and Israel have nuclear bombs, according to the Stockholm International Peace Research Institute. (The organization says North Korea has nuclear capabilities but may not have a warhead that a ballistic missile can carry.)

Historic American Engineering Record, Hanford Cultural and Historical Resources Program, U.S. Department of Energy; Bulletin of the Atomic Scientists; AtomicArchive.com;

International Atomic Energy Agency, Council on Foreign Relations; Stockholm International Peace Research Institute

To help us understand troubles of more recent vintage, there's Pennsylvania's Flight 93 National Memorial, where the park service opened a visitor center in September.

It's no easy job, teaching American history. But it's a responsibility the park service claimed decades ago, with backing from Congress and several presidents. And for parents whose kids are ready to start confronting the world's complexities, these historical parks are a chance to do that together.

Which brings me back to southern Washington. I wouldn't make it the centerpiece of a vacation. But as a side trip? Yes.

It's a pleasure to race the tumbleweeds across the wide plains near Richland, Pasco and Kennewick, Wash., to scan the vineyards on the rolling hills and see the sun glinting off the Columbia River. And if I had the whole family along, I'd be sure to remind them that just a few miles away, cleanup workers are coping with tons of radioactive waste, the byproduct of Hanford's atomic era.

As author Blaine Harden writes in "A River Lost," this stretch of the Columbia is "a fine place to see an eagle hunt, deer graze, or fish spawn. But best not to drink the groundwater for a quarter million years."

On the floor of the B Reactor, a docent would tell us about physics, logistics and the vast power of the atomic weapon. And I would throw some grown-up questions at my daughter:

Would you drop a bomb that could kill 150,000 people? What if it might save 300,000 others? How about 3 million others?

What if you learned after the fact that you had helped build the first atomic weapons? What if you built deadly weapons that led to a delicate global balance that has lasted decades? Would that make them instruments of peace?

Up to now at Hanford, thorny questions about casualties and ethics haven't been encouraged by the Department of Energy, which owns the site and will continue to share responsibilities here. On my visit in March, I heard park service interpretive specialists nudging Hanford's docents (many of them retired Hanford scientists and engineers) to reach beyond the protons and neutrons — and still avoid personal opinions.

It was fascinating to hear. Then within days of my return from Washington, Shigeko Sasamori gave me her perspective on Hanford — a ground-zero perspective.

Sasamori was a 13-year-old in Hiroshima, Japan, on Aug. 6, 1945. As she recalls it, she spotted the American bomber in the morning sky and was pointing it out to a friend when the bomb called "Little Boy" detonated.

Her friend was killed — one of an estimated 140,000 people who died in the short term. Sasamori suffered burns on more than 25% of her body. She endured dozens of skin grafts, some paid for by charity campaigns in the U.S.

She eventually became a nurse, mother, grandmother and peace activist in the U.S.

Now 83, she lives in Marina del Rey. She told me that she likes the idea of a Manhattan Project historical park — "if they make people understand how dangerous radiation is." But if the tours focus only on physics and American teamwork, she said, "that's a horrible thing."

The message Sasamori would deliver? "Evil weapons made here. So don't make any more."

This got me thinking. What if guides in the U.S., Hiroshima and Nagasaki teamed up to tell stories together, or to build electronic links between locations? What if rangers rotated between Hanford and Pearl Harbor?

I'll hope for programming that provocative. Although I know the Manhattan Project park will never match the attendance at the parks with epic mountains and charismatic beasts, it's a great American opportunity to visit a place like this, stretch beyond our usual horizons and perhaps even learn what it's like to stand at both ends of an atomic bombing mission.

If a family can fit a day like that into a week of sixth-grade vacation, why not? On the way back south, Yosemite will still be there.

A field trip to a nuclear reactor

On a spring morning in high, dry southern Washington, a bright yellow bus rumbled to a stop in a lot at the Hanford Site near the Columbia River. The fourth-graders of Orchard Elementary School in nearby Richland, Wash., were about to see one of this nation's newest historical parks, surrounded by a valley filled with sagebrush, eagles and elk.

When the bus door opened, the kids rushed straight into a metal-and-concrete box of a building, nearly 100 feet tall, neighbored by a 200-foot exhaust stack topped by a wind-whipped American flag. Inside, looming like a Borg ship in "Star Trek," stood a massive cube of graphite bricks and aluminum tubes.

"Welcome to the B Reactor," said docent David Marsh. Then he explained how in this room American scientists made "the nuclear weapon that was used to end World War II."

"Fat Man," the atomic bomb that detonated on Aug. 9, 1945, over Nagasaki, Japan, originated here. The National Park Service, best known for its stewardship of peaks and valleys, is taking on the job of explaining how and why the U.S. built and used the deadliest weapons ever turned against mankind.

The Manhattan Project National Historical Park, established in November, is a joint effort by the park service and the U.S.

Department of Energy. Besides the Hanford Site it includes Oak Ridge, Tenn. (where the enriched uranium that fueled the Hiroshima bomb was produced), and Los Alamos, N.M. (where bombs and components were designed and assembled).

Congress voted in 2014 to create this park, and park service leaders describe it as a chance to explore history that not only shaped the end of World War II but also the advance of science and at least half a century of geopolitics.

"It changed the world," said Anne Vargas, an Energy Department docent whose father worked at Hanford.

Los Angeles Times reporter Christopher Reynolds discusses the historical significance of the Manhattan Project's Hanford Site.

The B Reactor is the park's focal point in Hanford and the only structure most visitors will enter. The building had stood idle since 1968 and was slated for closure until the B-Reactor Museum Assn., led by retired Hanford scientists and engineers, launched a preservation campaign. The association also built models on display at the reactor and made videos detailing the science and history behind the structure.

To see it, you reserve a seat on an official tour bus and meet at the Hanford visitor center in Richland. The bus ride into the restricted site takes about an hour; visitors typically spend about two hours at the reactor with a docent. (Another tour focuses on remnants of communities that the secret project quietly displaced.) This year, for the first time, all ages are welcome.

"OMG," said one boy, facing the heart of the reactor, which is known as the pile.

"So," Marsh asked the fourth-graders, "what does a reactor do?"

"It makes plutonium to make atomic bombs," said one boy.

"What would you use to make the plutonium?" asked student Gloria Caridad.

"Uranium," another docent answered.

The reactor tours, often led by docents retired from jobs at the Hanford Site, have been a hot ticket among local families since the Energy Department started offering them in 2009. This year's tour season continues until Nov. 19.

"Does that red light always flash?" asked a mom, Colleen Lane, eyeing the equipment. (The answer was yes. The reactor is monitored full time to make sure radiation remains at "background levels.")

"Do you know what nuclear fission is?" asked docent Marty Zizzi.

Another boy raised his hand, then froze.

"I forget," he said. "We just learned it yesterday."

"We've been talking about it for a week now," teacher Liz Cronin said later. "They wanted to know why Japan bombed Hawaii in the first place. And they wanted to know why we needed plutonium when we had so many other bombs."

Enthusiasm for this trip was so high, Cronin said, that from her class of 26 kids, 18 parents volunteered to chaperone. She had room for four.

Students' faces turn from interested to amazed as they gaze upon the four-story B Reactor for the first time. [More photos](#)

Hanford's Manhattan Project story started in 1943, when Gen. Leslie R. Groves of the U.S. Army Corps of Engineers chose the site for its remote location; the pure, cool water of the Columbia River; and the ample electricity generated by the nearby Grand Coulee and Bonneville dams.

Within weeks, federal officials took over more than 600 square miles of riverside land, emptied the small towns of Hanford, White Bluffs and Richland, and evicted members of several Native American tribes.

Then DuPont, the military contractor that designed and built the reactor, started construction. By 1944, 45,000 workers from across the country had raised and filled scores of mysterious industrial buildings surrounded by a secret city with barracks, trailers, Quonset hut neighborhoods (segregated by sex and race), baseball fields, an auditorium, eight mess halls and a brewery.

The ruins of Hanford High School still stand decades after the government purchased the town. [More photos](#)

By September — just 11 months after groundbreaking — the B Reactor was built and began operations. By July 1945, Hanford had produced enough plutonium to power a practice bombing, the Trinity Test in Alamogordo, N.M. After the Aug. 6 bombing of Hiroshima, Japan, Hanford's rank-and-file workers learned they'd been helping to make atomic weapons. Three days later, Fat Man landed on Nagasaki, fueled by Hanford plutonium.

During the Cold War, Hanford's reactors cranked out about 67 metric tons of plutonium, fueling four decades of nuclear brinkmanship and, the Energy Department now acknowledges, creating one of the Earth's biggest radioactive messes.

You may not see signs of it from your B Reactor tour bus, but a guide may mention the Energy Department's cleanup efforts. The agency has 56 million gallons of high-level radioactive and chemical waste in storage tanks at Hanford, along with more than 80 square miles of contaminated groundwater. There's a separate Energy Department cleanup tour that takes 4 1/2 hours.

Confronting the B Reactor pile today is like stepping into the orchestra pit of a theater, then gazing up at a metal monster at center stage: 75,000 graphite blocks, 2,004 aluminum tubes running through them. In operation, the tubes were full of immensely hot uranium cylinders — about 64,000 of them, cooled by water from the Columbia, which eventually drained back into the river.

"The power of the place is incredible," said visiting park service ranger Denise M. Shultz, chief of interpretation and education at Washington's North Cascades National Park Complex. "I had goose bumps all over."

Just down the hall from the pile is the control room, with a central seat for the reactor operator, surrounded by dials, monitors and wiring.

"You guys know 'The Simpsons' on TV?" asked Marsh. "You know how Homer Simpson operates his nuclear reactor from his seat? This is the seat he would be in."

Besides the Hanford Site, the Manhattan Project National Historical Park includes two locations that are owned and operated by the U.S. Department of Energy.

The Los Alamos, N.M., site, which sits on a plateau 33 miles northwest of Santa Fe, includes three main areas within Los Alamos National Laboratory. At the Gun Site several buildings are associated with the design of the "Little Boy" bomb dropped in August 1945 on Hiroshima, Japan. At the V-Site two buildings were used in assembly of the Trinity Test bomb detonated in New Mexico in July 1945. The Pajarito Site was used for plutonium chemistry research during World War II, then weapon assembly in postwar years. No tours are offered, and there's no public access to Energy Department facilities. The neighboring town of Los Alamos includes the Bradbury Science Museum, which tells the history of the laboratory and the Manhattan Project. Atomic history also is a dominant feature of Los Alamos walking tours. Also in New Mexico but not included in the Manhattan Project park are the Army-controlled White Sands Missile Range (which includes the Trinity Test site, open to the public twice yearly, and the adjacent White Sands National Monument.

The Oak Ridge, Tenn., site, a city and industrial complex 25 miles west of Knoxville, was home to more than 75,000 people. Locations there include Oak Ridge National Laboratory and the X-10 Graphite Reactor (which produced small amounts of plutonium), the Y-12 Complex (home to the electromagnetic separate process for uranium enrichment) and the site of the K-25 Building (where gaseous diffusion uranium enrichment technology was pioneered). Uranium for the Hiroshima bomb was enriched in the Y-12 Complex and K-25 Building. Those sites are included on a

DOE bus tour (open to U.S. citizens only) that's offered March through November, two to five days a week. The tour is included in the \$5-per-adult entrance fee to Oak Ridge's American Museum of Science & Energy (amse.org). Since early this year park service rangers have been answering questions at the museum.

Later, somebody pulled the kids together for a group picture and hollered, "Smile and say, 'B Reactor!'"

Nobody asked about the atomic bombs' effects in Japan. Nor were death or injury statistics offered. In fact, the 28-page document that docents use as their main source doesn't include information on deaths and destruction.

But now, said Kirk Christensen, manager of B Reactor preservation for Energy Department contractor Mission Support Alliance, "we're going to have these conversations."

With about 12,500 visitors expected this year, the Energy Department is footing the costs of the Hanford tour program while the park service waits to see how much funding the next federal budget will include. Tracy Atkins, interim superintendent of the Manhattan Project park, said she would make her first hires soon.

The park service will spend the next 18 to 24 months developing the park's first round of interpretive materials, drawing on input from scholars and community members in New Mexico, Tennessee, Washington and Japan. A separate approach for kids younger than 12 will probably be included, Atkins said.

The park service may also print some materials in Japanese, Atkins said, but "we can't change everything overnight."

Tips for visiting Manhattan Project National Historical Park in Washington

How to get to the Hanford Site: The interim visitor center for the Manhattan Project National Historical Park at the Hanford Site — where bus tours to the B Reactor

begin — is at 2000 Logston Blvd., Richland, Wash., 15 miles west of the Tri-Cities Airport in Pasco, Wash.

Best time to visit: Late spring and early fall, when afternoon highs are usually below 90 degrees.

How to visit: Reserve a seat on a free four-hour bus tour (there's no private vehicle access) from the visitor center. Mondays through Saturdays through Nov. 19.

Saturdays book up the fastest. Info: manhattanprojectbreactor.hanford.gov

Accessibility: The B Reactor building is fully accessible for those with walkers and wheelchairs. With advance notice, tour organizers can deploy a bus with a wheelchair lift.

Children: Visitors of all ages are allowed. Authorities say there are no unusual radiation levels on the tour route, but the Department of Energy does require parents of minors to sign a liability release acknowledging that the B Reactor is "a radiologically controlled area" with potential risks and industrial hazards.

Sleep: Marriott Courtyard Richland Columbia Point, 480 Columbia Point Drive, Richland; (509) 942-9400. Pleasant location. Rooms for two typically \$150-\$175.

Eat: Anthony's at Columbia Point, 550 Columbia Point Drive, Richland; (509) 946-3474. Seafood and steaks in an airy dining room with marina views. Main dishes \$19-\$40.

More info: Manhattan Project National Historical Park.

Feds seek dismissal of MOX lawsuit; Gov. Haley says \$100M still owed to state

The Post and Courier

April 26, 2016

[LINK](#)

The U.S. Department of Energy says the MOX lawsuit South Carolina filed against the agency should be dismissed because the milestones that the agency failed to meet — outlined in a 2003 agreement — were only goals, not mandates.

The department also said the \$100 million that the state is seeking is an issue that should be handled in Federal Claims Court instead of the U.S. District Court.

But Gov. Nikki Haley is insisting that the federal government owes the state.

“We won’t back down on what is an important economic development and quality of life issue for the people of our state,” said Chaney Adams, a spokesperson for Haley.

The Energy Department filed its response Monday to the Palmetto State’s lawsuit against the agency for nonpayment under their 2003 agreement. That agreement says that DOE was supposed to process a metric ton of weapons-grade plutonium through the Savannah River Site’s MOX facility or remove a ton of the plutonium from there by Jan. 1.

The plutonium is part of the nation’s MOX project, which is designed, under a separate agreement with Russia, to dispose of 34 tons of weapons-grade plutonium by converting it into nuclear fuel. The amount is enough to make 17,000 warheads.

The Energy Department’s failure to meet either goal was expected to result in the payment of \$1 million a day, beginning Jan. 1, with a \$100 million cap. After a month without any payment, the state sued on Feb. 9.

The Energy Department claims that South Carolina is using a different interpretation of the agreement to impose the fines and to have one metric ton of the plutonium removed by year’s end.

“The statutory goal of removing defense plutonium cannot be described as non-discretionary, as Congress left it to the agency to decide whether to remove defense plutonium or pay the financial penalty,” the Energy Department wrote in its motion to dismiss the lawsuit.

The agency added that South Carolina's claim should be handled in Federal Claims Court because the Administrative Procedure Act "does not permit the relief that South Carolina seeks" in District Court.

In addition to Haley's office, Sen. Lindsey Graham is also holding the Energy Department's feet to the fire. The South Carolina Republican helped write the 2003 agreement during his time in the U.S. House.

"A deals a deal. We put the statute there for a purpose. If the MOX program does not get back on track, the statute helps ensure we protect the state," Graham said on Tuesday.

It is unclear how long it will take for a ruling to be handed down.

The state sued the Energy Department in March 2014 when President Barack Obama's budget proposal sought to freeze the MOX project while federal officials searched for cheaper options to dispose of the plutonium.

At that time, the department estimated that the project would cost \$30 billion over its lifetime. Now, the department believes MOX will cost \$51 billion over its lifetime, including the \$5 billion already spent on the project.

The 2014 lawsuit was dropped after Energy Secretary Ernest Moniz promised to continue construction of the SRS facility.

The fiscal 2017 budget proposal seeks the termination of MOX in lieu of a downblending alternative that would dilute the plutonium and ship it to a New Mexico repository. The attempt to switch pathways without formally consulting Russia received criticism from Russia.

Georgia Power faces pair of hearings over nuclear plans

Augusta Chronicle

April 23, 2016

[LINK](#)

ATLANTA — Georgia Power is about to be in the midst of two hearings in which it will try to justify its judgment on nuclear power.

In one that began last week, it is seeking permission to spend money billed to its customers investigating whether building a new nuclear plant is the best way to generate electricity to meet future demand. In the other, which begins May 3, the company will argue that the cost overruns incurred during the expansion of Plant Vogtle in Burke County resulted from prudent decisions that electricity customers ought to pay for.

Both will require the five-person Public Service Commission to vote in coming months, and each will be a factor in whether the state gets more nuclear power.

The addition of two reactors at Plant Vogtle will make it the largest commercial nuclear plant in the country. Unit 3, which began construction before Unit 4, is the first new commercial reactor built in the U.S. in three decades.

“They are building a new plant under bright-lights scrutiny from the whole world with a design that’s never been built in this country, and no one has had to do that,” said Russ Bell, the director of new plant licensing at the Nuclear Energy Institute, a trade association.

Being the first, it has hit many bumps in the road, as even Georgia Power executives admit. But the lessons of Unit 3 have smoothed the road for Unit 4 and the two units being built by SCANA in South Carolina at Plant Summer.

The executive overseeing the construction of the Vogtle reactors told engineers and utility executives at an international nuclear-construction summit in Atlanta this month that future plant construction will be even less stressful.

“A lot of lessons learned are being captured. A lot of best practices will live on,” said David McKinney, the Southern Nuclear vice president. “I do think that the next units of these passive reactors will be built very efficiently. We’ve had some first-of-its-

kind startup issues that you might expect, but I do think that the industry is positioned well to carry that forward.”

When asked about timing, he said the next one should come sooner rather than later.

“Ideally, if you wanted to take the experience and expertise most efficiently from the Vogtle and Summer experience, you would do it immediately after that,” he said.

Georgia Power has bought land for a new nuclear plant next to the Chattahoochee River in Stewart County south of Columbus. The 20-year plan the Public Service Commission is considering includes use of customer funds to evaluate the geology of the site for suitability as well as the general viability of nuclear power as opposed to other sources such as natural gas, coal, wind, solar or biomass.

Special-interest groups are already chiming in, including the Southern Alliance for Clean Energy.

“With the current challenges and continual cost overruns at Plant Vogtle, SACE is concerned with the potential costs and water impacts and will be asking Georgia Power for justification for these projects,” the advocacy group said in a statement.

On the other side is the Statewide Building Trades Council, the construction unions supplying many of the 5,000 workers assembling Vogtle’s new reactors. Council President Phil McIntyre urged the commission to support another nuclear plant.

“Given the pressure that coal plants face (from federal clean-air regulations), and our union brethren know that best because they have lost their jobs, actions to consider new nuclear seem like reasonable options going forward,” he said.

The company isn’t only considering another giant nuclear plant like Vogtle where each reactor generates 1,100 megawatts of electricity. It’s also weighing small, modular reactors of no more than 300 megawatts.

Because of their smaller size, they can be fabricated more affordably in controlled factories and trucked to a site the size of a shopping center. They also consume less water, produce less nuclear waste and have more safety features.

“When you look at small modular reactors from this view, you ask, why aren’t we building them already?” said Frank Saunders, the vice president of Canada-based Bruce Power, during the nuclear summit.

A major benefit of nuclear power is that it produces no emissions like wind and solar, but it can run nonstop for years, even at night and when the wind isn’t blowing, notes Gary Schwendiman, a former professor and author of *The Future of Clean Energy*.

Public perception is the sticking point, he said. To illustrate, he recommends an online search for images of “nuclear power” because half of the photos will be of bombs.

“To succeed, this technology must overcome the perception held by the public and news media, and you in the industry have to do the educating,” he told executives at the summit.

Public Service Commission members are all elected. Commissioner Tim Echols is up this year and is facing challengers.

SC delegation, Putin agree: Obama’s MOX shutdown would breach treaty

The Sacramento Bee

April 25, 2016

[LINK](#)

The Obama administration’s plan to pull the plug on an unfinished, \$5-billion nuclear plant has brought together some unlikely allies – the South Carolina congressional delegation and Russian President Vladimir Putin.

The mixed oxide (MOX) facility in Aiken, S.C., is part of a 2000 nonproliferation agreement with Russia that calls for the two countries to dispose of 34 metric tons of weapons-grade plutonium. After years of cost overruns and chronic delays, the Obama administration effectively scrapped the S.C. project in its 2017 budget in favor of a cheaper, faster alternative called downblending.

THIS IS NOT WHAT WE AGREED ON.

Russian President Vladimir Putin

“This is not what we agreed on,” Putin said earlier this month, according to a translation provided by the Kremlin. Putin said the decision was the reason he did not attend a major nuclear summit in Washington, D.C., a few weeks ago. “Russia fulfilled its obligations in this regard and built these facilities, but our American partners did not.”

Members of the South Carolina delegation, who have often framed opposition to cutting the project’s funding in terms of the federal government breaking its promise to their state, piled on.

17,000 Number of weapons, equivalent to the 34 metric tons of plutonium, that the U.S. and Russia agreed to dispose of in a 2000 nonproliferation agreement.

“We find it unfortunate that DOE’s short-sighted efforts to kill MOX have allowed President Putin – who is no friend of the United States and our foreign policy objectives – to claim the high ground about living up to international agreements,” South Carolina Republican Sens. Lindsey Graham and Tim Scott wrote in a letter to Energy Secretary Ernest Moniz.

The mixed oxide facility (MOX) at the Savannah River Site employs 2,000 people.

THIS IS NOT A SOUTH CAROLINA PROBLEM. THIS IS A NATIONAL PROBLEM AND AN INTERNATIONAL PROBLEM.

Sen. Lindsey Graham

“Sadly, Vladimir Putin’s reaction to the President’s short-sighted plan to terminate MOX is not surprising,” Rep. Joe Wilson, R-S.C., told McClatchy in a statement. “The United States should ... uphold its commitments to the state of South Carolina and to the international community. Impeding nuclear non-proliferation puts American families at risk.”

Now the future of the plant – and the international agreement – is headed to the marathon markup of the 2017 defense bill by the House Armed Services Committee on Wednesday, a meeting that will likely last well past midnight and include MOX funding.

South Carolina senator asks about MOX facility future

U.S. Senator Lindsey Graham (R-South Carolina) questions Secretary of Energy Ernest Moniz about the MOX facility at the Savannah River Site and its viability moving forward.

A Senate subcommittee last week voted for the reduced level of \$270 million in the federal budget, just enough to stop construction and start closing down the MOX site. Its House counterpart pushed for the original level of funding, \$340 million, which would keep construction going, though at a slow pace of 4 percent a year. The facility is 70 percent completed.

AT THE REQUEST OF SOUTH CAROLINA GOV. NIKKI HALEY, STATE ATTORNEY GENERAL ALAN WILSON SUED THE ENERGY DEPARTMENT IN FEBRUARY OVER ITS FAILURE TO COMPLETE THE PLANT. ACCORDING TO A 2003 AGREEMENT, THERE IS A PENALTY OF \$1 MILLION A DAY FOR MISSING THIS DEADLINE WITH AN CAP AT \$100 MILLION PER YEAR.

“If you can convince me there’s a cheaper way to do this that meets our international commitment and overcomes the regulatory and statutory hurdles, I’m all ears,” Graham said in a statement after the Senate panel vote. “But, don’t give me an ill-conceived plan no one has thought through that doesn’t have a snowball’s chance in hell of working.”

Disposing of the plutonium in South Carolina would cost the government an estimated \$800 million to \$1 billion annually for several years. The downblending alternative would dilute the plutonium, package it and send it down to a federal repository in New Mexico, saving the government \$400 million per year, according to a Department of Energy report.

Nuclear policy experts say plutonium is too dangerous to be focusing on the dollar amount it takes to secure it, or taking risks with a partner as volatile as Russia.

“You’re talking about 17,000 weapons; it’s expensive but how do you put a value on it if some of them fall into the hands of terrorists,” former House Armed Services Committee Chairman Rep. Buck McKeon, R-Calif., told McClatchy. “How expensive would it be to have a couple of them blow up in a populated area – these millions would look like a bargain price.”

In an era of increasing tension between the United States and Russia, it’s rash to change the terms without signoff from Moscow, he said.

“This is one agreement that Russia has apparently stuck to, and now what they would like to do is blame us for walking away from this. If we don’t do it, then Russia says ‘We’re not going to do it either,’” McKeon said.

One of the problems is that often people making the funding decisions don’t have significant experience with nuclear issues, several nuclear policy experts told McClatchy. The expense of nuclear projects simply can’t be compared to other line items in the defense budget, they said.

IT’S ESPECIALLY DANGEROUS BECAUSE GOVERNMENTS COME AND GO, THROUGH BETTER TIMES AND WORSE, AND SECURITY AT THESE FACILITIES CAN BE LAX.

Andrew Koch, senior vice president for defense and homeland security at Scribe Strategies, a lobbying firm

“Yes it’s expensive, everything to do with nuclear is expensive, but if you told the defense department they could spend \$5 billion to get rid of that much plutonium in

Russia, they'd do it in a heartbeat," said Andrew Koch, senior vice president for defense and homeland security at Scribe Strategies, a Washington-based public relations and lobbying firm.

"Plutonium is dangerous forever, and this guarantees that enormous amounts of very dangerous material gets permanently eliminated instead of storing it," Koch said.

The current fight over the funding level in Congress may only be about \$70 million, but it's the difference between shutting it down and keeping it going, if only barely. If the MOX facility in South Carolina starts to shut down, it will be almost impossible to start it up again, Koch said.

"Some people might say it's not a big deal, they can just restart it later," he said. "But it's a very specific skillset needed for these nuclear workers. That's one of the reasons it's so expensive, as well as all the safety and security specifications. And the minute they stop funding, you may not be able to reconstitute it."

Our Voice: Leaking Hanford tank managed so far

The Tri -City Herald

April 25, 2016

[LINK](#)

The recent leak of radioactive waste between the two shells of Hanford's oldest double-shell tank is both a success story and cautionary tale.

Hanford officials involved in controlling and managing the faulty tank had a contingency plan in place in case more leakage occurred, and the good news is that it has worked so far.

All the evidence shows the outer shell of the tank did its job and contained the dangerous waste, and workers were able to identify the problem and manage it.

According to the Washington State Department of Ecology, there is no indication the environment was contaminated.

That's the success story.

When the alarm went off April 17 that waste between the shells was rising, workers were ready to handle the situation.

They succeeded in their attempt to remove the waste that was leaking into the space between the two shells of Tank AY-102 and transfer it back into the primary tank, following a set of emergency procedures that had been developed months ago with Washington state officials.

The discovery that this particular tank was leaking from the inner shell happened several years ago, and the state had ordered the Department of Energy — the federal agency in charge of Hanford — to begin removing the nearly 800,000 gallons of radioactive waste by March 4.

Washington River Protection Solutions, the contractor hired by DOE to manage the tanks, began to pump out the radioactive waste a day ahead of schedule. The task was going well until it was detected two weeks into the effort that significantly more waste had begun leaking.

DOE officials said they had anticipated this might happen, and that pumping the waste could trigger additional leaked waste to accumulate between the shells.

While we are grateful Hanford officials were prepared, we would suggest that in the future they let the public know what problems might arise just before they start pumping so that people are not caught off guard.

All this radioactive waste is left from past production of plutonium for the nation's nuclear weapons program, and the brew is deadly. If people had been made more aware that Hanford officials were ready in case of a leak, it might have stemmed some of the outcry around the state.

When it was announced that the leak was increasing between the shells, environmental watchdogs began calling the situation “catastrophic” and the overreaction was not helpful.

And while DOE and the contractor appear to have handled waste removal at Tank AY-102 successfully so far, we can’t help but continue to be concerned about other tanks at Hanford and what problems might arise with them, particularly the single-shell tanks.

There are 149 single-shell tanks at Hanford that were built between 1943 and 1964. Another 28 tanks made with double-shells were built from 1968 to 1986. Radioactive liquid has been pumped from most of the single-shell tanks and put in the double-shell containers, but there is still much waste to be dealt with.

And the construction of the vitrification plant, which would turn the waste into glass for safer disposal, is still decades away.

This latest scare about the leak in Tank AY-102 appears to have been handled appropriately, and we are grateful for that.

But it doesn’t mean we shouldn’t continue to be concerned about the pace of Hanford cleanup, which cannot fall behind.

And state and federal officials could do a better job of communicating with the public. Hanford is a frightening site, however well it is being managed.
