



Savannah River Site Watch

Savannah River Site Watch
Columbia, South Carolina

<https://srswatch.org/>

Update on SRS Issues for 2021
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**Challenges Facing Host of Savannah River Site Projects in 2021;
SRS Must Strive to Better Serve Public**

**Proposed and Unjustified SRS Plutonium Bomb Plant (PBP), to Fill the MOX Money Hole, to
be Opposed and Formally Reviewed, Termination Possible**

Citizen engagement on projects at the Department of Energy's Savannah River Site began in earnest in the mid-1970s. Despite misguided efforts by DOE and its contractors, a host of ill-conceived projects have been terminated, with great cost savings to the tax payer, avoided waste burden at the site and strengthened national security. (See [SRS Watch list of impressive public victories](#) from the 1970s through 2020.) Such successes can be repeated in 2021.

As we enter 2021, numerous programs at SRS face scrutiny as a new Congress takes over and a new administration implements new policies. The lack of openness by DOE and the hostile attitude toward the public, long a debilitating problem with DOE, again will face challenges by public interest groups. Of primary importance, DOE and SRS must operate in a more democratic and transparent manner. Savannah River Site Watch, along with colleague groups near DOE sites in the Alliance for Nuclear Accountability, will renew efforts to hold DOE accountable and will work with new DOE officials in the development of sound policies.

Here's a snapshot of some issues facing the Savannah River Site and DOE in 2021:

- 1. Proposed, unjustified SRS Plutonium Bomb Plant (PBP) will get a thorough review in 2021.**
The PBP is not embodied in law and can be eliminated via authorization or appropriations. What DOE has called the "Savannah River Plutonium Processing Facility" - slated for the abandoned, poorly constructed Mixed Oxide Fuel Fabrication Facility - received \$441 million in funding for Fiscal Year 2021, including \$241 million in direct funding and \$200 million via the

secretive “plutonium operations” slush fund. [The unnecessary project will be closely scrutinized by Congress and public interest groups in 2021](#). The target to produce 80 plutonium m “pits” per year by 2026 - for the proposed, unjustified W87-1 and W93 warheads and 4000 active and reserve weapons - will be questioned and if the pit-production level is lowered to 30 pits per year - to be produced at the problem-plagued Los Alamos site - the SRS Plutonium Bomb Plant would be eliminated. Pit production at SRS could result in import of an additional 7.5 metric tons or more of weapon-grade plutonium to SRS, some of which could be stranded at SRS if pit production began and were to be halted. The project, to cost \$5 billion by 2030, will also create low-level nuclear waste which could be dumped in unlined trenches at SRS.

- 2. MOX investigations still urgently needed.** Indications exist of fraud in purchase of vast amounts of MOX equipment that were warehoused on site and off site and which were never used. The Government Accountability Office (GAO) staunchly refuses to investigate the matter, as does Congress. We’ll continue to raise the need for investigations into MOX spending and mismanagement by the DOE’s National Nuclear Security Administration and the MOX contractors (primarily Orano/Areva and CB&I).
- 3. New review of nuclear weapons and support facilities will be conducted,** putting pressure on contractors’ plans for the Plutonium Bomb Plant, overall DOE “modernization” and new nuclear weapons. Given the lopsided, dangerous focus on nuclear weapons, a new Nuclear Posture Review (NPR) will be updated from the [2018 NPR](#) and a new Stockpile Stewardship and Management Plan, [released in December 2020](#), will also be prepared. Most importantly, an overarching civilian review of the need for the massive nuclear stockpile, including the proposed W87-1 and W93 warheads, is needed. Given that what is being presented as a “deterrence” level of nuclear weapons is in fact a force to engage in a full-scale nuclear war highlights the need for the civilian side of government to regain control of nuclear policy. Likewise, it is urgent that the new administration renew the New START Treaty that is being allowed to lapse.
- 4. Processing of radioactive tritium gas at SRS, for nuclear weapons, will increase in 2021,** likewise increasing risks of tritium operations, as pointed out by the [Defense Nuclear Facilities Safety Board](#) (which plays a vital oversight role of SRS and DOE facilities). In order to fully charge nuclear weapons with tritium gas, which has a half-life of 12.5 years, DOE intends to ramp up irradiation at TVA’s Watts Bar Nuclear Bomb Reactors of tritium rods (Tritium Producing Burnable Absorber Rods), manufactured at the Westinghouse fuel plant near Columbia, SC. DOE has revealed it intends to [increase tritium “extractions” from the highly radioactive TPBARs from two per year to 8 to 10 per year by 2026](#), thus elevating risks of accidents or tritium releases.
- 5. Processing at SRS of surplus plutonium for disposal as waste is now undergoing a review** under the National Environmental Policy Act. [DOE announced on December 16, 2020](#) that the “scoping” for an Environmental Impact Statement had begun, with comments received until February 1, 2021. The EIS will review disposal of 34 metric ton of plutonium, which means more

than an additional 20 MT of plutonium could come to SRS. The “preferred alternative” is to downblend the plutonium in the old K-Reactor with a secret, inert ingredient called “stardust” for disposal as waste in the Waste Isolation Pilot Plant (WIPP) in New Mexico. But the volume of WIPP is oversubscribed due to existing transuranic waste requiring disposal, as well as TRU waste from plutonium disposition, pit production for nuclear weapons and the proposed Versatile Test Reactor. Currently, [11.5 metric tons of plutonium are stranded in the K-Reactor](#).

6. **Plutonium fuel fabrication at SRS for the proposed Versatile Test Reactor (VTR)** could bring 30 metric tons of plutonium to SRS. [On December 21, DOE released a draft Environmental Impact Statement](#) on the VTR, with comments accepted through February 15, 2021. While the preferred location of the reactor is the Idaho National Lab, SRS is in the running for fuel fabrication for the VTR. But SRS has no recent experience with fuel fabrication, especially not of the metallic type used by the VTR. It is expected that the VTR, which only received \$45 million in funding for FY 2021, will face tough going in the new administration and new Congress.
7. **Questions about the impacts of a recent cyberattack on DOE have gone unanswered by SRS and DOE headquarters.** Despite direct questions about a possible hack and security threats it may have produced, DOE has been totally silent about any hack of SRS systems or Impacts on SRS programs. Given the news and information blackout, the public thus has no ability to discern the level of public safety or security threats that may be faced. Thus, negative impacts must be assumed until SRS publicly addresses the issue.
8. **SRS has failed to clarify the status of start-up of the Salt Waste Processing Facility (SWPF),** to process high-level nuclear waste out of the SRS tanks. The start-up of this key facility was announced on October 5, 2020 but shortly thereafter [SRS Watch heard rumors](#) about operational problems and the Defense Nuclear Facilities Safety Board reported problems with pumps and worker exposure. Information about SWPF start-up has been scant, raising concerns about the ability of the facility, which has run far over budget and behind schedule, to start up and operate as planned. SWPF is to help empty the remaining SRS high-level waste tanks by 2030, which will be a challenge if the facility does not operate properly. Communication in 2021 DOE’s Office of Environmental Management about the status of SWPF must be much better.
9. **Plans to import and dump German highly radioactive spent fuel at SRS are in trouble but remain alive and must be terminated.** The Savannah River National Lab is conducting research on processing irradiated graphite fuel balls used in two long-closed German commercial, experimental gas-cooled reactors in spite of the illegality to export such material from Germany. While [efforts to export AVR reactor spent fuel from the Juelich site](#) are stalled, a [new effort to export 33 unirradiated graphite balls to SRS is being pursued](#). Opposition from German public interest groups is significant and if plans move forward that opposition will only grow. [NNSA has said there is no proliferation concern to leave the material in Germany](#), some of which contains US-origin highly enriched uranium.

- 10. Clean-up of nuclear and chemical waste at SRS remains the king of employment.** According to a [Fiscal Year 2020 fourth quarter employment listing](#), obtained by SRS Watch via a Freedom of Information Act request, site permanent and temporary employment remains over 11,000. As the number of employees will decrease as the high-level waste mission winds down at the end of the 2020s, it is imperative to maintain funding for Environmental Management “clean-up” projects. [Claims that creation of the proposed the Plutonium Bomb Plant will employee up to 3500 people in the mid-2020s is a fantasy](#) and must be discounted. As taxpayers fund the work at SRS, creation of make-work projects like pit production are harmful to the taxpayer and to national security and carry the threat of yet more plutonium being stranded at the site.
- 11. Efforts to dump 1300 vitrified high-level waste canisters by 2029 as low-level waste or transuranic waste is misguide and will fail.** A recent DOE report titled [Evaluation of Potential Opportunities to Classify Certain Defense Nuclear Waste from Reprocessing as Other than High-Level Radioactive Waste](#) presents a flawed analysis about cost savings with alternate methods of disposing of high-level waste (required to go to a geologic repository). Given the numerous improper assumptions in the document, it’s clear why it has been delivered almost three years later than the 2018 date required by Congress. Decades of costly failure in developing a program to vitrify waste from the Hanford tanks can’t now be overcome by simply reclassifying “almost 80+%” of the waste with the claim of saving money. It ignores the reality that the existing WIPP volume cap is already oversubscribed given existing TRU waste and a host of projected future high-volume plutonium waste streams set for it. It presents a new type of facility that does not exist - an intermediate-depth disposal facility - and does not discuss licensing or costs or the technical basis for such a facility. It overlooks that it is up to Congress to redefine HLW and that such a step can’t be made by a DOE regulatory wave of hand. Overall, the approach presented in the document would further slow down the creation of the required geologic storage facility.
- 12. Spent fuel from Finnish research reactor is likely now on its way from Finland to the Idaho National Lab, via the port of Savannah, Georgia.** [The shipment, likely from the FiR1 reactor](#), departed the [Finnish port of Vuosaari on December 29, 2020 on the UK-flagged ship Pacific Grebe](#). The ship is due to arrive in Savannah at the end of January 2021 and then the spent fuel would be trucked across the United States to INL. While the fuel is part of a program to “take back” US supplied research reactor fuel, it does not contain highly enriched uranium (HEU) and thus poses no proliferation risk and does not need to be managed at INL. NNSA at SRS is likely coordinating the shipment. In the future, more research reactor spent fuel will go to SRS.
- 13. Finally and significantly, DOE and SRS have miserably failed in providing the public with information and responding to public requests.** Both the SRS “Office of External Affairs” and any public affairs office in DOE headquarters are broken must be totally rehabilitated in order to serve the public that pays the bills. (We have no evidence that a public affairs office in HQ exists or functions; is it the Office of Intergovernmental & External Affairs?) The current attitude toward the public is hostile and unproductive. Pushing for a reform of how DOE conducts its public interaction will be high on this list of what SRS Watch pursues in 2021.