

Two Nuclear Weapons Facilities in S.C. Play a Key & Intertwined Role in the Dangerous Preparation for Nuclear War: Savannah River Site (Aiken, SC) & “Dual-Use” Westinghouse Nuclear Plant (Columbia, SC)

Honor the Lessons of Hiroshima and Nagasaki and Take Action – August 6, 2021

The **U.S. Department of Energy’s Savannah River Site (SRS)** has long played a key role in **U.S. planning for nuclear war** and that ominous mission that threatens our security continues. Don’t be tricked by politicians and war profiteers who claim the massive U.S. nuclear stockpile of about 4000 weapons is just for “deterrence,” when, in fact it’s always been the basis for a U.S. policy of threatening annihilation and fighting a full-scale nuclear war.



Beginning in the mid-1950s through the 1980s, SRS operated five nuclear reactors to produce plutonium and tritium used in all U.S. nuclear weapons. (See K-Reactor at left, now used to store 11.5 metric tons of surplus plutonium.) That work, which generated massive amounts of nuclear waste, has changed but related work continues as the government-contractor alliance at SRS helps maintain the U.S. on a constant footing to engage in the madness of nuclear war, threatening global and national security.

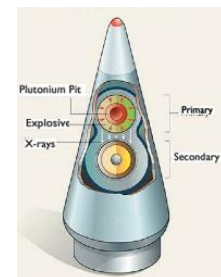
Now, **SRS is the sole DOE site to processes and package tritium** - a gas used to boost the explosive power of nuclear weapons - for use in all nuclear warheads produced by DOE and held by the Department of Defense, which is DOE’s client. Tritium is produced via irradiation of special rods - produced at the Westinghouse plant in Columbia, SC - in the Watts Bar military-commercial reactor operated by the Tennessee Valley Authority.

Those highly radioactive rods are taken to SRS, where they are processed in the Tritium Extraction Facility (TEF) and the tritium stored until its placement into small “reservoirs” - photo at right - that are inserted into a nuclear warhead. The highly radioactive waste from this process is placed in the “E-Area Intermediate Level Vaults,” above-ground concrete “disposal” facilities for so-called low-level nuclear waste.



Tritium has a short radioactive “half-life” - 12.3 years - so demand for the gas that boosts the explosive power of a weapon is continuous. SRS is now conducting about 2 “campaigns” per year to process the tritium rods, but that could increase to 8 to 10 “extractions” per year by 2026, greatly increasing worker and public health risks of tritium processing at the site. The goal appears to be to replenish all the tritium in the reservoirs in all the deployed and reserve weapons, to give them maximum firepower, for anticipated war that many politicians plan and war profiteers, such as Northrop Grumman and Raytheon, count on to fill their overflowing bank accounts.

On the plutonium front, a similar alliance of DOE’s National Nuclear Security Administration and for-profit contractors are now pushing a **proposal to produce plutonium “pits” at SRS in the proposed Plutonium Bomb Plant**. Pits are the ~3-kg plutonium core of all U.S. nuclear weapons, which causes the nuclear fission reaction that triggers a thermonuclear explosion. This proposal is part of the Biden/Trump plan to spend up to \$2 trillion on nuclear weapons in the next 30 years. The first pits are for a ICBM given the purposely misleading name “Ground Based Strategic Deterrent.” The second new pit would be for a new Submarine Launched Ballistic Missile.



new



DOE has proposed locating the pit plant in the **abandoned plutonium fuel (MOX) building**, a project terminated in 2018 after \$8 billion was wasted on construction. DOE estimates that conversion of the MOX plant into a nuclear weapons factory could cost up to \$11.1 billion, but based on past performance that cost will rise, which is exactly what the contractors are after.

The intent is to have the facility producing 50 pits/year by 2030 but that has been delayed for up to five years. Given the complexity and cost of the project, creation of a large amount of new nuclear waste and lack of need for new nuclear warheads that would use the pits, it is hoped Congress will eventually terminate this

provocative project. If pursued, the total amount invested in MOX and pit plant construction alone could be \$20 billion, making this one of the most expensive buildings in U.S. history.

DOE has failed to analyze the array of environmental impacts of pit production at SRS and across the DOE complex and has brushed aside Environmental Justice concerns at both SRS and the Los Alamos National Lab, a DOE site also being considered for expanded pit production. Several public interest groups, including [SRS Watch](#), filed a lawsuit on June 29, 2021 demanding that a **Programmatic Environmental Impact Statement (PEIS)** be prepared. The groups are being represented by the South Carolina Environmental Law Project (SCELP), which has set up a website with information on the PEIS lawsuit and the plutonium pit issue: <https://www.scelp.org/cases/plutonium-pits>.

Mini ACTION: Contact [Mr. Jason Armstrong, Manager of NNSA's Savannah River Field Office](mailto:jason.armstrong@nnsa.srs.gov), jason.armstrong@nnsa.srs.gov, and briefly tell him as a SC resident that you do not support the dirty, dangerous and costly plutonium pit-production "mission" at SRS and instead support continued negotiations to universal nuclear disarmament, as required by the Nuclear Non-Proliferation Treaty (NPT).

Our Local Nuclear Weapons Facility: Westinghouse Nuclear Fuel Plant near Columbia, SC



Only 10 miles from downtown Columbia, SC, and largely unknown by the public, the **Westinghouse Fuel Fabrication Facility**, located on the road to the Congaree National Park, plays an essential role in the U.S. nuclear weapons industry. This "[dual-use commercial-weapons facility](#)" operates in the shadows of the for-profit security state.

Westinghouse Government Services, LLC, a duly registered company with the SC secretary of state, appears to be operating under the same roof as the Westinghouse fuel fabrication facility, where uranium rods are fabricated for foreign and domestic nuclear power plants. Westinghouse Government Services, previously known as WesDyne, produces specialized rods that are irradiated to produce tritium gas for nuclear weapons. The Nuclear Regulatory Commission claims it does not regulate the facility and the SC Department of Health and Environmental Control says it has issued no permits to the facility and that waste goes to the fuel plant. Westinghouse, DOE and the NRC may have secret agreements in place that they think allows them to flaunt regulations. But it looks like a cover-up.

The facility produces [Tritium Producing Burnable Absorber Rods \(TPBARs\)](#) that are transported to the **TVA's military-commercial Watts Bar Nuclear Bomb Reactor (WBNBR)** in Athens, TN, where the fresh, non-radioactive rods are irradiated and the lithium in them produces tritium gas. The highly radioactive rods are shipped back to SRS for processing, where the tritium is removed and placed in canisters for insertion into nuclear warheads, in order to boost the explosive power of the weapons.

SRS currently processes about 2 batches of TPBARs per year but, according to the DOE's National Nuclear Security Administration, that will go up to [8 to 10 "extractions" per year by 2026](#). This means there will be much more production activity at Westinghouse Government Services and more TPBAR processing at SRS, which means more risk of worker exposure to tritium (a big [concern of the Defense Nuclear Facilities Safety Board](#), which oversees DOE operations). Keeping all U.S. nuclear weapons at maximum firepower is indeed ominous, yet Biden persists.

The NRC claims it does not regulate Westinghouse Government Services' TPBAR operations. A [Draft EIS](#) (<https://www.nrc.gov/docs/ML2120/ML21209A213.pdf>) released by the NRC on July 30, 2021, on the [unjustified 40-year license-extension request by the Westinghouse fuel plant](#), inexplicably excludes hazardous waste streams from TPBAR production even though the waste, according to DHEC, is passed to the fuel-fabrication side of the facility.

Mini ACTION: File a brief comment on the Draft EIS stating that waste streams coming from Westinghouse Government Services must be regulated by the NRC and the facility must be licensed by the NRC. Ask that a full explanation be given about management of waste streams from TPBAR production: WEC_CFFF_EIS@nrc.gov.
