

TO THE RAMPARTS!

An Alert To Mobilize

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This is the second in a series of updates on the status of the pit (the plutonium component to a trigger in a thermonuclear munition's fissile core) production program mandated by Congress in 50USC2538a (Public Law 115-232, sec. 3120), "The Act." Because some of the information pertaining to the pit program is confidential, some segments of the information contained in these updates are mere inferences based on relevant facts. This second volume comes on the heels of volume #1 (12/11/20) due to the discovery of additional pertinent information and on the ever-accelerating pace of nuclear weapon development feasibility plans and studies, Congressional committee deliberations, and the intense lobbying of Congress by the corporate-military-intelligence industrial cabal.

1. Congress and the Department of Defense (DOD) have forged a new relationship with regard to pit production. The future of the pit program hangs on the annual spending authorizations contained in the National Defense Authorization Act (NDAA). The Senate joined the House in passing the FY2021 NDAA on 12/11/20. The National Nuclear Security Administration (NNSA) is a semi-autonomous agency within the DOE responsible for enhancing national security through the military application of nuclear science. The requested NNSA budget for pit production in FY 2021 is \$15.6 billion. This allocation remains an unknown because the U.S. government is operating on a second short continuing resolution, and Congress is poised to adjourn. Fundamental technical and political issues remain unresolved in the plan to produce new plutonium pits for U.S. nuclear weapons. Congress has mandated that Los Alamos National Laboratory (LANL) produce no fewer than 30 pits annually beginning in 2030, and concurrently that Savannah River Plutonium Processing Facility (SRPPF) will produce 50 pits annually beginning 2030. The NEPA Compliance Office in the Department of Energy (DOE) in 2020 stated that LANL should not produce more than 20 pits annually until certain infrastructure upgrades are made in the lab. Los Alamos, which has not produced even 20 pits per year, is nevertheless statutorily mandated to make 30 or more pits per year by 2026. Both manufacturing sites (LANL and SRS) *must demonstrate* the capability to meet those production quotas by 2027.

The FY21 NDAA sets up a complicated scheme whereby the existing requirement in 50USC2538a to produce certain numbers of pits by certain dates could be delayed for up to five years by an amendment to the statute, if the Commander-in-Chief of the U.S. Strategic Command certifies to Congress that the "deterrence missions" and "military effectiveness" of the U.S. nuclear weapons arsenal would not be degraded by a delay. In other words, "the tail is wagging the dog!"

2. The U.S. DOE touts electrical power generation by nuclear fuel as "clean and efficient." This belief may spill over to the handling of low level wastes from laboratories and test sites and it seemingly downplays the importance for local communities of such issues as potential accidental discharges, leaks, and waste management. In a recent NNSA publication entitled "Management Challenges at the Department of Energy-FY2021," the government devotes a section to "Restoring Plutonium Production Capability." The acting administrator, Dr. William

Bookless, writes, "One of NNSA's highest priorities is to reconstitute plutonium pit production. The infrastructure and critical skills required for pit production and other plutonium activities are essential to sustaining the safety and effectiveness of our nuclear deterrent and strengthening our national security. Given the uncertainties regarding plutonium aging and evolving geopolitical landscape, the United States cannot postpone reestablishing this critical capability." Regrettably, it appears that the U.S. government must support the current doctrines of "Full Spectrum Dominance" and the "Pacific Pivot." "Damn the torpedoes, full speed ahead!"

Obviously, the fact that legacy waste, dangerously stored on site in labs, test facilities, and utility power generation sites, as well as Superfund sites continues to languish without significant clean-up progress, is of little concern to the DOE, Department of State, or DOD. The NNSA is responsible for maintaining a safe, secure, reliable, and effective nuclear weapons stockpile. It is not concerned with waste management or other industrial safety issues. The DOS's Nuclear Waste Technical Review Board and DOD's Defense Nuclear Facilities Safety Board are concerned with waste and safety. Refer to 42USC1010.

During the Cold War, more than 1,000 plutonium pits were produced. Pit production ended in 1989 with the exception of production at the Rocky Flats Nuclear Weapons Plant in Colorado. The plant closed in 1992. DOE's FY 2020 Stockpile Stewardship and Management Plan addresses pit production requirement found in the 2018 Nuclear Posture Review, which tasked the Department with establishing an enduring capability to produce pits at a rate of *no fewer than 80 per year* during 2030. Currently, the National Security Enterprise (there term!) has only one plutonium facility, which is located at LANL in New Mexico. Work is in progress to complete the modernization of the Plutonium Facility (PF-4) within the Los Alamos Plutonium Pit Production Project at LANL, while repurposing the former Mixed Oxide Fuel Fabrication Facility at the Savannah River Site (SRS) in South Carolina into a nuclear munitions plant. The manufacturing site at LANL will be five buildings. The PF-4 building, located 0.6 miles from residences, which does not meet modern safety standards, will be 50 years old in 2028. Replacement of PF-4 may not be possible given LANL's geology, topography, seismology, and proximity to residences, businesses, sacred tribal lands, highways, and the national monument that borders LANL on portions of two sides. The projected cost to replace, by 2022, just one building, the Chemistry and Metallurgy Research Building (CMRB) is \$10.3 billion. The subsurface geology and topography of Technical Area-55 (TA-55), in combination with the site's seismicity, make large nuclear facilities with safety-class systems impractical on the steep south side of that technical area, as these factors and others did in the case of the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF). The proposed TA-55 "modules" would lack safety-class systems, which would consume too much real estate on the narrow mesa. TA-55 is a problematic location. The large quantities of legacy transuranic (TRU) waste (19,000 drums) stored approximately 100 meters from potential public receptors at LANL are dangerous! This protracted situation is concerning to state and local governments and to tribes, and is now a first-level concern. Pit production wastes would consume most, if not essentially all the space in the available WIPP shipment schedule, stranding legacy waste. Interim milestones have been established with LANL to manufacture its first war reserve pit by 2023 as proof that a mass production effort may ensue. Five pits are to be produced in 2023 with a goal of 10 pits by 2024 and 30 pits by 2026, and 50 pits at the Savannah River Site by 2030.

3. "National Defense" (NDIA's Business & Technology Magazine), published an article on December 4, 2020, by Jon Harper, entitled, "Next-Gen Nuclear Missile Viewed as Pathfinder." In that article it was announced that Northrup Grumman was awarded a \$13.3 billion engineering and manufacturing development contract for an eight-year phase of the project aimed at replacing the Minuteman III nuclear armed ICBMs with the Ground-Based Strategic Deterrent (GBND). The GBND is expected to be fielded around 2030, a date coincidental with the deadline for peak pit production. The projected cost of the GBND is \$95 billion. The Air Force wants to replace 400 Minuteman IIIs currently in operation AND acquire additional next-gen missiles to be used for testing. Mr. Harper wrote, "Regular testing of the Minuteman III is projected to reduce the ICBM force below requirements by early 2030." He noted, "We're going to run out of missiles." What a shame! It is significant to note that the W87-1 warheads used on the GBND will be the first U.S. nuclear weapons produced since the end of the Cold War using entirely new or re-manufactured components, including newly designed pits.

4. The issue of transporting and storing plutonium is a huge concern for Columbia, SC, and Los Alamos, NM. On November 5, 2020, the Savannah River Site Watch, an NGO, calculated that "pit production at SRS would cause an additional 7.5 metric tons of plutonium to be trucked into the state, which would pose the risk of being stranded here (in Columbia) when the ill-conceived pit project falters. While DOE claims that a large amount of plutonium waste coming from pit production would go to the DOE's Waste Isolation Pilot Plant in New Mexico, there is no demonstration that there would be capacity for that waste, posing a grave risk that South Carolina could be left holding the plutonium bag. It's clear that the Plutonium Bomb Plant at SRS is being driven by contractors and boosters who stand to profit from making South Carolina ground zero for an unacceptable new nuclear arms race . . ." SRS already stores 11.5 metric tons of plutonium, stranded at the site in old reactor K, when the mismanaged Mixed Oxide (MOX) project was terminated.

5. The passage of the NDAA for FY 21 results in the cost for maintaining the U.S. Military Empire in 2021 to be \$5,785 per American household. At the Savannah River Site, NNSA plans to "repurpose" the partially constructed MOX Fuel Fabrication Facility, at a cost of about \$5 billion by 2030. Around \$8 billion was wasted on the mismanaged MOX project before it failed and was terminated by NNSA in 2018, a sobering example to the public of the risks of a new, complicated plutonium pit production mission. To exemplify the magnitude of the dual-plant pit production effort, DOE's FY21 budget request has projected current and out-year funding (through FY2025) for the Plutonium Modernization Program, including the Chemistry and Metallurgy Research Replacement project, at \$10.3 billion, which will provide resources for efforts across the *National Security Enterprise* to restore the Nation's capability to produce 80 pits per year during 2030.

6. A short note on safety concerns of the current and planned enhanced operation of LANL's plutonium operations is in order. At LANL, pit production has been plagued with chronic nuclear safety problems spanning a decade. The most recent, scathing review of LANL by the Defense Nuclear Facilities Safety Board (DNFSB) was memorialized in the Board's report to the Secretary of the DOE on September 24, 2020. The Board's inspectors reviewed the operational areas of (1) hazardous analyses, (2) accident analyses, and (3) storage of transuranic wastes. The referral letter read, in part, "The attached technical report further details these topics. The concerns mirror those outlined in the Board's letter dated January 29, 2020, regarding revision to DOE Standard 5506, Preparation of Safety Basis Documents

for Transuranic (TRU) Waste Facilities, and highlighted in the Board's June 20, 2019, public hearing." Do we have a pattern here and a problem handling, storing, and dealing with nuclear, albeit low level, waste?! It is not possible to credibly predict future pit production at LANL, nor will it be, at least not until 2025, given the unresolved problems flagged by the DNFSB, some of which may be resolved by then. For the long-standing issue of legacy TRU waste disposition, there is no timely solution. There are roughly 19,000 drums and other containers of TRU stored at LANL, with thousands of these in an unsafe condition above ground near the public, and other thousands in long-term but temporary shallow burial, subject to corrosion. *Storage capacity for new TRU waste from pit production is also inadequate.*

7. The Congressional delegation from New Mexico is solidly supportive of the activities at LANL. Historically, since the proposal for pit production was surfaced in 1989, they have acted in favor of the lab's existence and mission expansion. Almost the entire current crop of elected officials and many appointed officials at the state level also tacitly support the proposals for mission shift at LANL from research to manufacturing. They hold to the "just following orders" rationale in not demanding concessions from the federal authorities to accommodate the strain on infrastructure that the build-out and operation of the lab's plutonium handling will place on the state, counties, and local tribal areas. Apparently, the delegation believes it is its patriotic duty to acquiesce to the federal government and to silently allow the further colonization and militarization of the state begun in 1942. Certain tribal activists and various NGOs within the state continue to advocate for more transparency in the Los Alamos and Sandia labs plus WIPP operations, as well as persistently lobbying for a clean-up of the legacy nuclear wastes at the labs, test sites, mines, milling sites, and storage sites. State and local politicians hold out the promise of LANL needing 4,000 production and support staff to achieve a production rate of 30 pits annually, with projections for hiring at a rate of 1,200-1,500 employees annually for many years into the future. Both LANL and SRS will require approximately 2,000 employees at each site during peak production of pits.

Note: After the content of the FY21 NDAA (passed on 12/11/20) and the fate of the recently introduced "American Nuclear Infrastructure Act of 2020" (S. 4897) are known, I will issue volume #3 of *To The Ramparts!*