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Biden Continues Trump's Bloated Nuclear Weapons Budget Will that change in future years?

Santa Fe, NM – In a classic move that discouraged media coverage, the Department of Energy's semi-autonomous National Nuclear Security Administration (NNSA) released its long delayed FY 2022 Congressional Budget Request around 7:30 pm EST Friday, May 28, at the very beginning of the long Memorial Day weekend.

Nuclear Watch New Mexico strongly opposed the 25% FY 2021 increase that the Trump Administration bequeathed to NNSA's nuclear weapons programs. That massive increase was originally sold in testimony to Congress as essential to maintaining the nuclear deterrence but later revealed as necessary to cover NNSA cost overruns and blown schedules. Nevertheless, the Biden Administration has institutionalized Trump's excessive nuclear weapons budget with a FY 2022 request of \$15.48 billion for NNSA "Total Weapons Activities," a slight increase above the \$15.35 billion that Congress appropriated for FY 2021. The key drivers are new and upgraded nuclear warheads and new production facilities to manufacture them, particularly for plutonium "pit" bomb cores.

As background, DOE's nuclear weapons and environmental management programs have been on the Government Accountability Office's "High Risk List" for project mismanagement and waste of taxpayers' dollars for 28 consecutive years.² Related, the Congressional Budget Office (CBO) has just released a report that projects a 28% increase in costs over the next decade for so-called "modernization" of U.S. nuclear forces,³ which between the Defense Department and DOE is expected to cost approximately \$1.7 trillion over 30 years. To add to this, the Government Accountability Office has recently issued a report that points to probable technical and schedule problems with "modernization" that will likely cost yet more and could lead to the expansion of the U.S. nuclear weapons stockpile, providing more fuel for the growing nuclear arms race.⁴

General Issues with NNSA's FY 2022 Nuclear Weapons Budget

First, it's not clear that this is really a "Biden" budget, as reflected by the following:

Consistent with the past two transition year budgets (FY 2018 and FY 2010), the FY 2022 President's Budget does not include program-based defense budget levels beyond the budget year. Instead, the defense estimates for FY 2023-2026 simply reflect inflated FY 2022 levels, not policy judgments. The Administration will include outyear defense program funding levels in the FY 2023 Budget, in accordance with strategy documents currently under development. The FY 2023 President's Budget will be accompanied by a Future Years Nuclear Security Program that reflects this Administration's policy judgments. (PDF page 7)⁵

As demonstrated by the recent CBO report, ever escalating "modernization" costs will be a chronic concern. "Future-years nuclear security program" are four-year cost projections required by Congress because of NNSA's track record of exceeding costs. Foremost among "strategy documents currently under development" is a highly anticipated Nuclear Posture Review that would put President Biden's stamp on future U.S. nuclear weapons policies. A charitable view of Biden's FY 2022 NNSA budget is that it is simply the product of inertia between sitting Administrations. However, that is belied by the significant increases given to controversial issues such as new warheads and expanded plutonium pit production. It is presently unknown whether Biden's Nuclear Posture Review will significantly impact NNSA's budget next fiscal year. Unfortunately, this FY 2022 budget request suggests that it will not.

The FY 2021 Defense Authorization Act (Sec. 4732) required that "Concurrent with the submission of the budget justification materials submitted to Congress... the Secretary of Energy shall submit to the congressional defense committees a report on the financial balances for each atomic energy defense program." NNSA has reportedly accrued up to \$8 billion in prior year balances. However, this budget request reports only \$336 million in "NNSA Cancellation of Prior Year Balances." (PDF page 7). This is an area that authorizers and appropriators should closely scrutinize both to determine if NNSA is adhering to Congressional directive and to adjust NNSA's budget request accordingly.

NNSA's FY 2022 budget request for "Total Weapons Activities" purports that its purpose is "to maintain a safe, secure and effective nuclear weapons stockpile." (PDF page 7). However, it also acknowledges that "The stockpile is inherently moving away from the nuclear explosive test database through aggregate influences of aging, modern manufacturing techniques, modern materials, and evolving design philosophies." (PDF page 252) The whole premise of NNSA's Stockpile Stewardship Program since 1994 and the hundreds of billions spent on it since has been to preserve the safety and reliability of the nuclear weapons stockpile in the absence of underground testing.

That "aging" is significantly moving the stockpile from the tested database is debatable given that nonnuclear components can be continuously tested and replaced as needed, while independent experts have agreed that plutonium pits have reliable lifetimes of a century or more. What will obviously move the stockpile away from the tested database are the elective changes that NNSA is intentionally introducing to manufacturing techniques and materials and especially with wholly new designs. Problems with changed capacitors for the W88 and B61-12 warheads have already been encountered, costing at least a billion dollars to fix and a year's delay. Problems with new designs may grow far more serious yet with the introduction of new plutonium pits with heavily modified designs that could conceivably undermine confidence in stockpile reliability. In the extreme they could even prompt the U.S. to resume full-scale nuclear weapons testing.

This calls into question the fundamental nature of NNSA's so-called Stockpile Stewardship Program. Is it really to preserve stockpile safety and reliability, or is it a Trojan horse to continue advancing nuclear weapons designs and expand production? Why fix what is not broken, given that the existing stockpile has been extensively tested and proven to be very reliable with well understood, routine exchange of limited life components? Does NNSA's growing budget really serve the best interests of the American public when those elective changes could actually undermine stockpile reliability while fueling a growing nuclear arms race?

Nuclear Warheads

NNSA states:

The FY 2022 Budget Request provides a 0.9% increase from the FY 2021 Enacted Level to support: on-going warhead acquisition programs – B61-12, W88 Alt 370, W80-4, W87-1, the W93 Program and the W80-4 Alteration for the Navy's Sea-Launched Cruise Missile-Nuclear (SLCM-N)... and further extension of the B83-1." (PDF page 117)

The B61-12 is the world's first nuclear "smart" bomb. It blurs the line between strategic and tactical (or battlefield) nuclear weapons and will be forward deployed in Europe against the Russians. The Biden budget gives it \$771.6 million for FY 2022, down 5.4% because design is mostly complete. The B61-12 is scheduled to go into production in FY 2022.

The W88 Alt 370 is an "Alteration" for this 475-kiloton sub-launched MIRVed warhead that will give it refreshed high explosives and a new arming, fuzing and firing set for increased accuracy. The Biden budget gives it \$207.1 million for FY 2022, down 19.4% because design is complete as it goes into production.

The W80-4 is a modified warhead for the Defense Department's new Long-Range Stand-Off (LRSO) cruise missile. Instead of promoting arms control as the Biden Administration generally claims, the LRSO will be particularly destabilizing because it can be the literal bolt out of the blue due to its stealth and ability to evade radar. The Biden budget gives it \$1.08 billion for FY 2022, up 8%.

The W87-1 will be the first new warhead with wholly new components, slated to top the Air Force's new "Ground Based Strategic Deterrent" missile. It is the also the driver for NNSA's planned expanded production of plutonium "pit" bomb cores. The Trump Administration projected \$691 million for the W87-1 in FY 2022 which the Biden FY 2022 budget request fulfills. Separately, the Biden Administration nearly doubled funding for GBSD to \$2.56 billion in FY 2022. This is controversial because fixed intercontinental ballistic missiles silos are the most vulnerable to surprise attack and therefore are on constant alert from which if launched they cannot be recalled in the event of false alarms and miscalculations. In all, GBSD is expected to cost around \$264 billion over 50 years.⁷

The W93 is a proposed new submarine-launched warhead whose main advocate is the United Kingdom, which substantially relies on U.S. warhead designs and plans to numerically increase its own nuclear weapons stockpile. The Trump Administration projected \$80 million in FY 2022 to jump start this warhead's development. The Biden budget gives it \$72 million, up 36% from the enacted FY 2021 funding level. It is questionable that the U.S. Navy really wants this new-design warhead because its own existing W88 and W76 warheads have already been extensively tested and are currently being upgraded. Will the Navy really trust newly manufactured plutonium pits that deviate from their tested designs? Does the UK really need the W93 when a reported parts problem for its existing warhead could be solved well short of a completely new-design nuclear weapon?

Trump's 2018 Nuclear Posture Review proposed to bring back nuclear-armed sea-launched cruise missiles (SLCMs), which were retired by President George H.W. Bush after the end of the Cold War. The Biden budget gives NNSA its first funding at \$10 million for the SLCM's W80-4

Alteration. But will the U.S. Navy really want the expense of having to certify attack submarine crews for nuclear-armed SLCMs? Will Biden's pending Nuclear Posture Review cancel this dangerous Cold War relic?

Instead of canceling archaic legacy weapons as advertised elsewhere, the Biden budget increases "Stockpile Sustainment" to indefinitely maintain the B83. It is the last U.S. megaton nuclear bomb and had been slated for retirement prior to Trump's Nuclear Posture Review reversing its course. A number of Congressional offices (including New Mexico's Senator Martin Heinrich) had publicly justified their support for the B61-12 based on NNSA promises that it would enable the B83's retirement. Congress should demand a full justification of why the B83 is not being retired.

Finally, nuclear weapons dismantlements would give American taxpayers permanent savings by reducing security costs while providing a compelling international example toward the global nuclear disarmament enshrined in the 1970 NonProliferation Treaty. However, the Biden budget cuts funding for dismantlements by 9% to \$51 million, a mere 0.3% of NNSA's \$15.48 billion for "Total Weapons Activities."

Plutonium "Pit" Bomb Core Production

Both the Commander of Strategic Command and Jill Hruby, the Biden nominee for NNSA Administrator, have recently testified to Congress that expanded production of plutonium "pit" bomb cores is the #1 "modernization" issue. The Trump Administration increased "Plutonium Modernization" by 70% to \$1.4 billion in FY 2021 to enable the production of at least 30 pits per year at the Los Alamos National Laboratory (LANL) in northern New Mexico and at least 50 pits per year at the Savannah River Site (SRS) in South Carolina by 2030. The Biden Administration is giving Plutonium Modernization \$1.72 billion, a 22.8% increase.

The Biden budget provides \$1.01 billion in FY 2022 for "Los Alamos Plutonium Modernization" (up 20.8%), accelerating the transformation of the Lab into a bomb production plant. This includes \$350 million (up 55%) in upgrades for LANL's aging plutonium facility so the Lab can produce more than 30 pits per year. Up to \$4 billion in plutonium facility upgrades over the next decade is expected. (PDF pages 203 - 210)

The Biden budget gives \$603 million for "Savannah River Plutonium Modernization" (+36.5%), which includes \$479 million (+96%) to "repurpose" the failed MOX plant at SRS (which has already cost taxpayers \$7 billion) into the Savannah River Plutonium Processing Facility (SRPPF). But buried in the FY 2022 budget request is that "Total Project Costs" for the SRPPF will be \$11.1 billion (PDF page 220) when NNSA's previous estimate in 2018 was \$4.6 billion. Further, this is based on SRPPF design being only 30% complete when 90% design completion in not expected until "CD [Critical Decision]-2/3 approval in FY23-24." (PDF page 211). Thus, Congress will probably be misled into continually providing ever increasing funding for the SRS plutonium bomb plant.

However, the SRPPF's Critical Decision-1, expected next month, may well present Congress with some sticker shock that it can't ignore. The NNSA FY 2022 budget request states:

Based on information developed to support the CD-1 milestone, NNSA has determined that achieving the required 50 war reserve ppy production rate at the Savannah River Site in 2030 is not likely... The scope, cost and schedule estimates developed for the CD-1 approval package include an estimated high end of the cost range at \$11.1B and a CD-4 schedule range of 1st Quarter FY 2032 to 4th Quarter FY 2035." (PDF page 211; CD-4 is the formal decision to go into actual production)

A slipping schedule and exploding costs are likely to put yet more pressure on LANL to produce plutonium pits, which is technically questionable and may exacerbate chronic nuclear safety problems at the Lab.

The National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires that the federal government provide the public with the formal opportunity to comment on proposed major actions. Expanded plutonium pit production will cost the American taxpayer at least \$43 billion dollars over the next 30 years, and that estimate was long before NNSA began to acknowledge the SRPPF's exploding costs. Despite that, NNSA is relying upon an obsolete 2008 Complex Transformation Programmatic Environmental Impact Statement, an outdated 2008 LANL Site-Wide EIS and an inadequate 2020 SRS EIS to justify its unrealistic plans for expanded production of at least 80 pits per year.

On April 21, 2021, the South Carolina Environmental Law Project, representing the citizen watchdog groups Nuclear Watch New Mexico, Tri-Valley CAREs and SRS Watch, wrote to NNSA that the "three groups intend to file an action pursuant to NEPA within 60 days if DOE and NNSA fail to reconsider its decision" to not complete a new programmatic environmental impact statement on expanded plutonium pit production. The filing of that lawsuit is now imminent.

Jay Coghlan, Nuclear Watch Director, commented, "This first Biden budget is a serious blow to slowing down the growing nuclear arms race. Maybe this is just the inevitable inertia between sitting Administrations, with possible significant change to come in a pending Nuclear Posture Review. Or it could be more like the Obama Administration, under whose watch so-called "modernization" took off in direct contradiction to its arms control rhetoric. President Biden himself needs to decide where to invest limited taxpayers' money. Will it be for more unneeded nuclear weapons or meeting true needs such as preventing pandemics and mitigating climate change?"

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This press release is available at https://nukewatch.org/biden-continues-trumps-bloated-nuclear-weapons-budget

A compilation by Nuclear Watch of DOE and NNSA budget data is available at https://nukewatch.org/NukeWatch-FY22-NNSA-Budget-Analysis
It will be updated as more budget information becomes available.

¹ See *Undisclosed delays plague atomic programs, cost billions to fix,* John M. Donnelly, Roll Call, March 20, 2020, https://www.rollcall.com/2020/03/20/undisclosed-delays-plague-atomic-programs-cost-billions-to-fix/

² See generally HIGH-RISK SERIES Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas, GAO, March 2021, https://www.gao.gov/assets/gao-21-119sp.pdf

³ Projected Costs of U.S. Nuclear Forces, 2021 to 2030, CBO, May 2021, https://www.cbo.gov/system/files/2021-05/57130-Nuclear-Forces.pdf.

- ⁴ NUCLEAR TRIAD DOD and DOE Face Challenges Mitigating Risks to U.S. Deterrence Efforts, GAO, March 2021, page 37, https://www.gao.gov/assets/gao-21-210.pdf
- NNSA's FY 2022 Congressional Budget Request is available at https://www.energy.gov/sites/default/files/2021-05/doe-fy2022-budget-volume-1.pdf

Its narrative pages are not consistently numbered. PDF pages are given here for all quoted excerpts.

- ⁶ See Faulty \$5 Part Causes 18-Month, \$1 Billion Delay to Navy, Air Force Nuclear Upgrades, Ben Warner, September 2019, https://news.usni.org/2019/09/25/faulty-5-parts-cause-18-month-1-billion-delay-to-navy-air-force-nuclear-upgrades
- See *Timeline: Ground-Based Strategic Deterrent Program*, Federation of American Scientists, https://fas.org/issues/icbm-information-project/timeline-gbsd/
- See *Plutonium Pit Production Engineering Assessment (EA) Results*, NNSA, May 2018, slide 8 combining Alt A and 2C (SRS and LANL), https://nukewatch.org/newsite/wp-content/uploads/2019/03/FINAL-Pu-Pit-Production-EA-Results-05.14.18 Unclassified.pdf?x68309