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To: DOGE and others whom it may concern

From: The Los Alamos Study Group (Executive Director Greg Mello, 505-577-8563, gmello@lasg.org)

<u>Proposal</u>: Save ~\$11 B in excess acquisition costs and ~\$2 B/year in excess operating costs for plutonium warhead core ("pit") production. These savings can be realized by building only a single facility in South Carolina instead of two facilities, the New Mexico one being early-to-need, non-enduring, and due to its small size, requiring 24/7 operations. Assuming all difficulties are overcome by 2032, the temporary facility at Los Alamos National Laboratory (LANL) will cost ~\$1.9 B/year to operate and further recapitalize over the 2030s and will provide only ~30 pits per year.

Pros:

Forward-looking cost savings, <u>would be</u> a large fraction (~80%) of an estimated additional \$13.6 B in costs through FY32, \$18.6 B through FY35, and \$26.6 B through FY39. The savings in NNSA's Weapons Activities program would come from ending the Los Alamos Plutonium Pit Production Project (LAP4) line item (<u>pp. 231ff</u>) and slashing associated program costs (<u>pp. 129, 134</u>), as well as in avoiding subsequent pit-related construction at LANL, which is uncosted but could cost billions. LANL pits will <u>cost</u> ~\$77-156 M each including all costs, or ~\$63-96 M apiece looking at forward costs only.

The unique, irreplaceable, and essential plutonium facility at LANL (Building PF-4) could then, as the NNSA <u>said</u> in 2017, "return to the research and development mission for which it was built." Existing LANL missions, including training and technology sustainment for pit production, would continue without the risk from adding pit production.

Competition between the SC and NM sites for specialized talent and equipment would cease, and the complications related to adding manufacturing capacity to an operating plutonium facility would end. NNSA would then be managing, and taxpayers paying for, one plutonium warhead "gigaproject" instead of two. Total combined <u>acquisition costs</u>, including sunk costs, at both sites is ~\$44 B; including operations NNSA will spend <u>~\$63 B through FY39</u> on plutonium pits, a staggering expense. It is unlikely that both projects can be completed successfully.

NNSA's heavy workload for new warheads, which has been increased by Congressional initiatives, would be brought closer to rationality. NNSA currently has 7 modified and new warheads in production or design.

A clear signal would be sent to the Russians and Chinese that the U.S. is sincere about avoiding a nuclear arms race. No current or currently-planned U.S. nuclear weapons deployment would be affected.

Cons:

The proposed W87-1 warhead, which would allow multiple independently-targeted warheads to be placed on the Sentinel silo-based intercontinental ballistic missile (ICBM) if later desired, would be delayed until at least the late 2030s or else canceled for lack of need. Meanwhile the inventory of modern, safe-to-handle, accurate, long-lived W87-0 warheads is sufficient for all planned Sentinel missiles, at the present loading of one warhead per missile, assuming the gigantic Sentinel project is actually completed as planned.

Assuming acquisition and start-up at both sites were actually successful, the U.S. would have two pit factories, a higher combined production capacity, and a greater degree of resilience to interruptions for a few years.

Discussion:

While two separate factories may *appear* to offer greater resilience (at twice the cost), focusing on one adequate project is likely the more resilient option. The LANL project suffers from numerous inherent <u>logistical problems</u> and is fragile.

This wasteful duplicity in pit factories is occurring in the context of having duplicative nuclear weapons physics labs.

No NNSA study supports the present two-site plan and none support enduring pit production at LANL. On the contrary, a major NNSA study completed during the first Trump Administration formally ruled out the current plan (pp. 45-48).

A federal judge has <u>ruled</u> that the present strategy violates the National Environmental Policy Act (NEPA). A decision to produce in SC only would bring NNSA in compliance with NEPA and its own project management rules. The SC pit facility will be fully capable of supporting the present and future U.S. nuclear arsenal.