

# Study casts doubt on ‘extremely challenging’ NNSA pit plans

By George Lobsenz

Amid skepticism from senators about the plan’s \$28 billion price tag, an independent study says the National Nuclear Security Administration’s proposal to produce plutonium pits for nuclear warheads at both the Savannah River Site and Los Alamos National Laboratory will be “extremely challenging” and cannot be expected to meet current Pentagon requirements to make 80 pits per year by 2030.

The study by the Institute for Defense Analyses (IDA) also said that strategies outlined by the semi-autonomous Energy Department nuclear weapons agency to accelerate pit production to 80 pits per year (ppy) by 2030 are “inconsistent with best practices and likely counterproductive,” according to an executive summary of the closely held IDA report that was obtained and released Friday by the Los Alamos Study Group, a citizen group that monitors Los Alamos National Laboratory (LANL).

NNSA to date has released virtually no details about the IDA study, which raises difficult questions for the agency’s costly proposal to repurpose a half-built plutonium disposal plant at DOE’s Savannah River Site (SRS) in South Carolina to produce 50 ppy, with the remaining 30 pits to come from refurbishment of the aging PF-4 plutonium facility at LANL.

The agency selected that dual-site approach over several other options that would meet the 2030 deadline for 80 ppy by increasing production at LANL alone. NNSA officials said producing pits at LANL and the repurposed Mixed Oxide (MOX) Fuel Fabrication Facility would provide needed redundancy and resiliency for the critical weapons program.

However, the IDA study said the dual-site option provided no advantages over far cheaper alternatives that focus solely on increased production at LANL, which currently is the only NNSA site with pit production capability.

The IDA findings were cited by several senators at a Wednesday hearing held by the Senate Armed Services Committee

where they asked NNSA Administrator Lisa Gordon-Hagerty about the high price tag for the dual-site pit production plan.

Under questioning by Sen. Martin Heinrich (D-N.M.), Gordon-Hagerty confirmed that the life-cycle construction and operations cost for the dual-site plan would be \$27.8 billion, which Heinrich said would be roughly double the cost of the LANL-only plans.

And while Heinrich acknowledged NNSA arguments that the dual-site plan would provide important redundancy and resiliency for vital pit production capability, he noted that NNSA had only one site for high-enriched uranium and tritium, two other critical materials for nuclear warheads.

Heinrich added that the IDA study on pit production concluded that “none of the options [considered by NNSA] are any better than another.”

In light of that finding, he said: “I think it’s hard to justify an additional \$14 billion in taxpayer dollars.”

Sen. Josh Hawley (R-Mo.) also cited the IDA findings in questioning the high price tag of the dual-site plan, saying: “If there is no advantage one over another, why build the new facility at Savannah River?”

Gordon-Hagerty replied that the dual-site strategy was necessary given the very clear risks posed by depending solely on the aging PF-4 facility at LANL for future plutonium production. She noted PF-4 is more than 40 years old and has major safety issues, including vulnerability to severe earthquakes.

Given that, “the redundancy piece is very critical,” Gordon-Hagerty added. “If there is a major incident at one facility [and]...we lose our single location, we don’t have an enterprise that is resilient.”

The questions about the dual-site strategy come as Heinrich and other New Mexico officials have suggested that NNSA decided to repurpose the MOX facility to appease anger among South Carolina officials about DOE’s decision last year to cancel the plutonium disposal project over huge cost increases and schedule delays. South Carolina officials said that decision effectively reneged on DOE’s legal

commitments to the state to begin removing plutonium from SRS in the near term.

However, backers of NNSA say New Mexico officials are opposing the plan to repurpose the MOX facility largely because it would take money away from their home-state LANL facility.

Beyond that debate, the IDA report was bleak in assessing NNSA’s ability to meet the 80 ppy requirement to partially reconstitute the pit production capability lost when DOE’s Rocky Flats facility in Colorado was shut down in the 1980s due to safety problems.

“Eventually achieving a production rate of 80 ppy is possible for all options considered..., but will be extremely challenging,” the study said. “No available option can be expected to provide 80 ppy by 2030.”

Of the options considered by NNSA, the study said: “Each is potentially achievable given sufficient time, resources, and management focus, though not on the schedules or budgets currently forecasted. None of the rejected alternatives is demonstrably superior to the [dual-site] option announced by DOD/NNSA.... That said, pursuing an aggressive schedule creates major risk to achieving an 80-ppy production capability under any option.

“Put more sharply, eventual success of the strategy to reconstitute plutonium pit production is far from certain,” the study said, pointing to NNSA’s poor track record in completing big projects on time and on budget.

“IDA examined past NNSA programs and could find no historical precedent to support starting initial operations (Critical Decision-4, or CD-4) by 2030, much less full rate production.... “[W]e could find no successful historical major project that both cost more than \$700 million and achieved CD-4 in less than 16 years.”

The study also cast doubt on strategies being eyed by NNSA to accelerate restoration of pit production.

“NNSA presented a list of proposed strategies to accelerate the schedule, with the goal of achieving the 2030 full rate production deadline. IDA found these proposed efforts to be inconsistent with best practices and likely counterproductive.... Strategies identified by NNSA to shorten schedules will increase the risks of schedule slip, cost growth, and cancellation.”

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