

GAO Highlights

Highlights of [GAO-20-443T](#), a testimony before the Subcommittee on Strategic Forces, Committee on Armed Services, House of Representatives

Why GAO Did This Study

NNSA is simultaneously modernizing the nation's nuclear weapon stockpile and the infrastructure on which weapon programs depend. In a 2019 report, NNSA stated that this is the busiest time for the nuclear security enterprise since the Cold War era. GAO's April 2017 review of NNSA nuclear modernization programs concluded that NNSA made optimistic assumptions about future costs. DOD and DOE estimate that nuclear modernization will cost hundreds of billions of dollars over the next decade.

This statement is based on 18 GAO reports issued from July 2003 to February 2020 and selected updates. It discusses (1) NNSA's ongoing and planned programs and projects to modernize weapons and related infrastructure and challenges they present; (2) NNSA's improvements in managing these programs and projects, and additional steps NNSA could take to make further improvements; and (3) GAO's prior recommendation to NNSA on assessing the affordability of its portfolio of modernization programs. To conduct the updates, GAO reviewed DOE planning and budget documents.

What GAO Recommends

GAO has made numerous recommendations to NNSA, including that it assess its portfolio of modernization programs to present options to align programs and budgets. NNSA has taken some action but has not fully responded to this recommendation.

View [GAO-20-443T](#). For more information, contact Allison B. Bawden at (202) 512-3841 or bawdena@gao.gov.

March 3, 2020

NUCLEAR WEAPONS

NNSA's Modernization Efforts Would Benefit from a Portfolio Management Approach

What GAO Found

The Department of Energy's (DOE) National Nuclear Security Administration (NNSA) is conducting four programs to modernize nuclear weapons, and the Department of Defense's (DOD) 2018 *Nuclear Posture Review* calls for NNSA to consider additional programs to refurbish or build new weapons over the next 2 decades. NNSA is also managing numerous, multi-billion-dollar construction projects to modernize the infrastructure it uses to produce components and materials needed for its weapon programs. GAO has reported on challenges NNSA faces in managing these efforts. For example, GAO's February 2020 report on the W87-1 warhead program found that NNSA's past challenges in managing plutonium activities cast doubt on NNSA's ability to produce the required number of plutonium weapon cores on schedule. GAO also found in June 2019 that future weapon programs will require newly produced explosives, including some that NNSA has not produced at scale since 1993.

NNSA has improved its management of weapon programs and related projects in some respects. For example, NNSA has established requirements for independent cost estimates in weapon programs and has made progress in revising plans for the Uranium Processing Facility project. However, GAO has identified additional actions that could further improve NNSA's management of weapon programs and projects. For example, in September 2017, GAO reported that NNSA had not developed a complete scope of work, a life-cycle cost estimate, or an integrated master schedule for its overall uranium program. GAO recommended that NNSA set a time frame for developing these plans. GAO expects to issue a report on NNSA's uranium program plans in March 2020.

GAO concluded in April 2017 that NNSA had not addressed a potential mismatch between funding needs and funding availability. GAO recommended that NNSA assess its portfolio of modernization programs—for example, by presenting options to align programs to potential future budgets, such as potentially deferring the start of or cancelling specific programs. NNSA did not explicitly agree or disagree with GAO's recommendation. NNSA included an affordability analysis in July 2019 planning documents, but the analysis does not fully respond to GAO's recommendation because it does not state how potential misalignment between program costs and budget projections may be addressed. GAO continues to believe that presenting options to align its portfolio of programs to potential future budgets could help Congress and NNSA better understand NNSA's priorities and trade-offs that may need to be undertaken in the future.

Figure: The B61-12 Nuclear Bomb



Source: Sandia National Laboratories. | GAO-20-443T