

GAO Highlights

Highlights of [GAO-16-422T](#), a testimony before the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. Senate

Why GAO Did This Study

DOE's NNSA is responsible for managing the nuclear weapon stockpile and supporting nuclear nonproliferation efforts. NNSA executes its missions at eight sites that make up the nuclear security enterprise. DOE's EM's mission includes decontaminating and decommissioning facilities that are contaminated from decades of nuclear weapons production and nuclear energy research.

DOE has made progress, but GAO continues to identify challenges across the nuclear security enterprise, including with major projects' cost and schedule delays. With NNSA and EM proposing to spend tens of billions of dollars to modernize the nuclear security enterprise, it is important to ensure that scarce resources are spent in an effective and efficient manner.

This testimony discusses DOE's (1) ongoing challenges in nuclear security modernization, (2) growing cost of environmental liabilities, and (3) nonproliferation accomplishments and long-term planning challenges. GAO's statement is based mainly on information from 11 prior GAO reports issued from February 2015 to February 2016, as well as on ongoing work on (1) DOE's plans to develop a high-level waste repository and (2) environmental liabilities. That work included reviewing agency documents and interviewing agency officials.

GAO is not making any new recommendations. DOE continues to act on the numerous recommendations GAO has made in these areas. GAO will continue to monitor DOE's implementation of these recommendations.

View [GAO-16-422T](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov

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DEPARTMENT OF ENERGY

Observations on Efforts by NNSA and the Office of Environmental Management to Manage and Oversee the Nuclear Security Enterprise

What GAO Found

The Department of Energy's (DOE) National Nuclear Security Administration (NNSA)—a separately organized agency within DOE—continues to face several ongoing challenges in modernizing the nuclear security enterprise, including challenges in managing life extension programs (LEP), contracts and major projects, and the alignment of plans with future budgets. As GAO reported in August 2015, NNSA estimates that it will need more than \$290 billion over the next 25 years to support its modernization plans. These plans include the execution of seven LEPs that entail refurbishing or replacing nuclear weapons' aging components. In February 2016, GAO found some improved and positive management approaches were being used on the ongoing B61-12 LEP but also noted that the cost and schedule of the LEP have been subject to significant changes since its inception. Another challenge for DOE's modernization plans is effectively managing contracts and major projects to replace aging nuclear facilities. DOE has taken some actions to improve its contract and project management but continues to face cost and schedule delays, and this remains a high-risk area. Further, in May 2015, GAO found that NNSA did not have a comprehensive policy or procedures for implementing its framework for overseeing its contractors and for evaluating their performance. Moreover, NNSA's ability to execute its modernization plans is also complicated by questions regarding the alignment of its plans with future budgets and by outstanding and new needs for funding, such as supporting a new repository for defense high-level waste.

In 2015, DOE's Office of Environmental Management (EM) estimated that cleanup of former weapons production sites would generally take until 2075 and cost \$240 billion. In March 2015, GAO found that that this estimate does not include all costs—for example, the costs for some contaminated facilities that have not yet been transferred to EM, which DOE acknowledges could cost billions to clean up. GAO's preliminary observations from ongoing work also indicate that the estimated cost of the remaining environmental cleanup has been growing, even while EM has been spending billions on cleanup. For example, from fiscal years 2011 to 2015, EM spent a total of about \$23 billion, while EM's estimate of its remaining environmental liability rose by \$77 billion. Over the past 2 decades, GAO and others have pointed out the need for DOE to take a complex-wide, risk-based approach to its long-term cleanup strategy, which could reduce costs while also maximizing risk-reduction in a more timely way. For example, a 2015 review requested by EM found that DOE needed a more systematic effort to assess and rank risks within and among sites, to remedy the highest priority risks through the most efficient means.

NNSA implements nuclear nonproliferation programs worldwide. GAO found in September 2015 that NNSA had made progress in securing nuclear materials worldwide but that it missed some goals, such as for providing physical protection upgrades at buildings containing nuclear materials. In addition, NNSA began an initiative in 2010 to identify and assess future nuclear and radiological proliferation threats and related trends over the next 5 to 10 years. In an October 2015 report, GAO found limitations in the methods NNSA used in this initiative, such as not conducting its peer review consistent with established standards.