

GAO Highlights

Highlights of [GAO-19-25](#), a report to the Ranking Member, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

The MOX project, located at DOE's Savannah River Site in South Carolina and overseen by NNSA, experienced significant cost increases and schedule delays following the start of construction in 2007. After spending nearly \$6 billion, NNSA terminated the project in October 2018. While DOE and NNSA have made some recent progress, they have historically struggled to complete, within their original cost and schedule estimates, other major construction projects intended to help maintain the nuclear security complex.

GAO was asked to review issues related to oversight of the MOX project. This report examines (1) when NNSA's project management oversight processes recognized cost and schedule problems at the MOX project and the actions the agency took to address them and (2) the extent to which DOE requires that project management lessons learned from MOX and other projects be documented and shared. GAO reviewed agency documents, visited the MOX project, and interviewed DOE and NNSA officials and representatives of the MOX contractor.

What GAO Recommends

GAO is making three recommendations, including that DOE and NNSA develop requirements for defining how and where project management lessons learned for capital asset projects should be documented and shared routinely and in a timely manner, and for evaluating the effectiveness of corrective actions taken in response to lessons learned. DOE agreed with GAO's recommendations.

View [GAO-19-25](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

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PROJECT MANAGEMENT

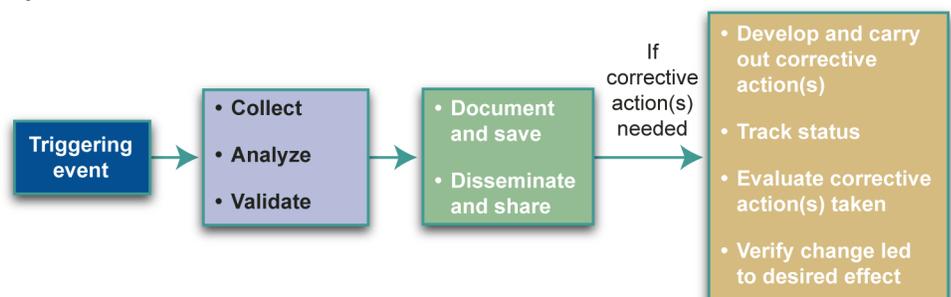
DOE and NNSA Should Improve Their Lessons-Learned Process for Capital Asset Projects

What GAO Found

The Department of Energy's (DOE) National Nuclear Security Administration (NNSA) has strengthened its oversight of the Mixed Oxide Fuel Fabrication Facility (MOX) project since 2011 and, as a result, began recognizing cost and schedule problems. The project, begun in 1997, was intended to dispose of large quantities of weapons-grade plutonium no longer required for national security. Prior to 2011, NNSA's project staff failed to recognize signs that the project would not be completed on time or within its approved cost. An independently conducted analysis, prepared in 2014 in response to a GAO recommendation, determined that NNSA staff did not recognize early problems because they were inexperienced in project management. To strengthen oversight, NNSA in late 2010 and 2011 began actions, such as conducting additional reviews and transferring oversight of the project to a newly established office specializing in project management. NNSA continued to identify the contractor's performance problems, such as the lack of credible, reliable cost and schedule data. These continued problems contributed to NNSA's decision to terminate the project.

DOE requires that project staff document and share project management lessons learned on capital asset projects like the MOX project, but not all lessons are to be documented consistently or shared in a timely manner. GAO found that DOE's and NNSA's offices document project management lessons learned differently and that not all of the documented lessons learned are readily accessible to other staff. Additionally, GAO found that DOE does not require that project staff share lessons learned for capital asset projects until the start of construction, which can occur many years after the start of the project. Under key practices, such lessons should be stored in a logical, organized manner, be easily retrievable, and be submitted in a timely manner (see fig.). By developing requirements that clearly define how and where project management lessons learned should be documented and requiring that the lessons be shared in a timely manner, DOE could improve its lessons-learned process and help improve the success of future capital asset projects. Also, for capital asset projects, DOE does not require the evaluation of the results of all corrective actions to respond to lessons learned to ensure that problems are resolved, consistent with key practices. By developing requirements to evaluate the effectiveness of corrective actions, DOE could better verify whether the actions had the intended outcome.

Key Practices of a Lessons-Learned Process



Source: Analysis of prior GAO reports and the Center for Army Lessons Learned report, *Establishing a Lessons Learned Program: Observations, Insights, and Lessons*. | GAO-19-25