

GAO Highlights

Highlights of [GAO-19-223](#), a report to congressional requesters

Why GAO Did This Study

EM's mission is to complete the cleanup of nuclear waste at 16 DOE sites and to work to reduce risks and costs within its established regulatory framework. In December 2018, DOE reported that it faced an estimated \$494 billion in future environmental cleanup costs—a liability that roughly tripled during the previous 20 years.

GAO was asked to examine EM's operations activities. This report examines, among other objectives, (1) how EM manages its cleanup work and (2) the extent to which EM's cleanup policy follows selected leading practices for program and project management.

To do this work, GAO reviewed agency documents and interviewed DOE project management experts and EM officials. GAO compared EM's policy with selected leading practices endorsed by the Project Management Institute for program and project management related to scope, cost, schedule, and independent review.

What GAO Recommends

GAO is making seven recommendations, including that EM (1) establish cleanup work classification requirements and (2) revise its cleanup policy to follow program and project management leading practices. DOE generally agreed with GAO's recommendations.

View [GAO-19-223](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

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NUCLEAR WASTE CLEANUP

DOE Could Improve Program and Project Management by Better Classifying Work and Following Leading Practices

What GAO Found

The Department of Energy's (DOE) Office of Environmental Management (EM) manages most of its cleanup of nuclear waste (77 percent of its fiscal year 2019 budget) under a category that EM refers to as operations activities, using less stringent requirements than a category of work, known as capital asset projects. (See figure) Capital asset projects—which involve the acquisition of land and other assets, including through environmental remediation—must undergo a series of reviews by independent experts and DOE's senior leadership. In contrast, operations activities are not reviewed outside of EM. EM's policy defines operations activities as reoccurring facility or environmental operations, as well as activities that are project-like, with defined start and end dates. EM cleanup site managers have discretion on how to classify cleanup work because DOE and EM have not established classification requirements. Since 2015, experts in DOE's Office of Project Management have raised concerns that some operations activities should be classified as capital asset projects, and that managing them under less stringent requirements poses cost and schedule risks. For example, the experts stated the cleanup of tanks of radioactive liquid waste should be designated as capital asset projects. However, these experts also stated that EM did not respond to their concerns, even though the office has department-wide responsibilities for overseeing project management. Until EM works with DOE's Office of Project Management to establish requirements for classifying cleanup work, the department may incur more cost and schedule risks than it should.

Examples of Requirements for Operations Activities and Capital Asset Projects

Office of Environmental Management's 2017 Cleanup Policy

77%
of EM's FY
2019 budget

Contains requirements for operations activities

- Review and approval within EM
- Original cost and scope baselines can change and project would still be considered successful
- No requirement for a root cause analysis
- No requirement for contingency funding

EM = Department of Energy's Office of Environmental Management

Department of Energy's Order 413.3B

18%
of EM's FY
2019 budget

Contains requirements for capital asset projects

- Review by independent expert organizations and approval by Department of Energy senior leadership
- Project must be completed within 110% of the original scope and cost baseline to be considered successful
- Root cause analysis is required if project can no longer meet baseline
- Contingency funding must be included in the total project cost estimate

Source: GAO analysis of Department of Energy information. | [GAO-19-223](#)

EM's cleanup policy does not follow any of 9 selected program management leading practices or 9 of 12 selected project management leading practices. For example, EM's 2017 cleanup policy does not follow the program management leading practice of conducting risk management throughout the life of a program or the project management leading practice of requiring independent reviews of operations activities. These leading practices help ensure that a program optimizes scope, cost, and schedule performance and that it achieves its goals and intended benefits. Until EM revises its cleanup policy to follow leading practices, EM's operations activities are at risk of uncontrolled changes to scope, exceeding initial budget and schedule, and failing to meet their original goals.