



Highlights of [GAO-08-1081](#), a report to the Subcommittee on Energy and Water Development, Committee on Appropriations, House of Representatives

Why GAO Did This Study

The Department of Energy (DOE) spends billions of dollars annually to clean up nuclear wastes at sites that produced nuclear weapons. Cleanup projects decontaminate and demolish buildings, remove and dispose of contaminated soil, treat contaminated groundwater, and stabilize and dispose of solid and liquid radioactive wastes. Ten of these projects meet or nearly meet DOE's definition of major: costs exceeding \$1 billion in the near term—usually a 5-year window of the project's total estimated life cycle.

GAO was asked to determine the (1) extent to which the cost and schedule for DOE's major cleanup projects have changed and key reasons for changes, and (2) factors that may hinder DOE's ability to effectively manage these projects. GAO met with project directors and reviewed project documents for 10 major cleanup projects: 9 above the near-term \$1 billion threshold, and 1 estimated to cost between \$900 million and \$1 billion over the near term.

What GAO Recommends

GAO is making a number of recommendations, such as expanding the content of performance reports provided to DOE senior managers and information provided to Congress to better reflect current status of near-term and life cycle baseline cost and schedules and reasons for significant changes; and strengthening DOE guidance and baseline reviews, among other things. In commenting on a draft of this report, DOE agreed with GAO's recommendations.

To view the full product, including the scope and methodology, click on [GAO-08-1081](#). For more information, contact Gene Aloise at (202) 512-3841 or aloise@gao.gov.

NUCLEAR WASTE

Action Needed to Improve Accountability and Management of DOE's Major Cleanup Projects

What GAO Found

Nine of the 10 cleanup projects GAO reviewed had life cycle baseline cost increases, from a low of \$139 million for one project to a high of nearly \$9 billion for another, and life cycle baseline schedule delays from 2 to 15 years. These changes occurred primarily because the baselines we reviewed included schedule assumptions that were not linked to technical or budget realities, and the scope of work included other assumptions that did not prove true. Specifically, the schedules for 8 of the 10 projects were established in response to DOE's 2002 effort to complete cleanup work, which in some cases moved up project completion dates by 15 years or more. For example, to meet the 2012 accelerated completion date for its solid waste disposition project, DOE's Idaho National Laboratory assumed it would process waste at a rate that was more than 50 percent higher than the rate demonstrated at the time it established the baseline. When the laboratory could not meet that processing rate, DOE revised its baseline, adding 4 years and about \$450 million to the project. Also, most of the 10 projects had cost increases and schedule delays because the previous baselines (1) had not fully foreseen the type and extent of cleanup needed, (2) assumed that construction projects needed to carry out the cleanup work would be completed on time, or (3) had not expected substantial additional work scope.

DOE has not effectively used management tools—including independent project baseline reviews, performance information systems, guidance, and performance goals—to help oversee major cleanup projects' scope of work, costs, and schedule. For example, DOE's independent reviews meant to provide reasonable assurance that a project's work can be completed within the baseline's stated cost and schedule, have not done so for 4 of 10 projects. For one project, the baseline was significantly modified as little as 7 months after it had been revised and validated by the independent review, while other projects have experienced life cycle cost increases of as much as \$9 billion and delays of up to 10 years, within 1 to 2 years after these reviews. In addition, although DOE uses several types of reporting methods for overseeing cleanup projects, these methods do not always provide managers with the information needed to effectively oversee the projects or keep Congress informed on the projects' status. For example, sites' proposals for changes to projects' cost and schedule baselines do not always identify possible root causes, and DOE does not systematically analyze the proposals for common problems across its projects. Therefore, DOE may be missing opportunities to improve management across projects. In addition, guidance for key management and oversight functions are spread across many different types of documents and are unclear and contradictory. As a result, project managers do not consistently implement this guidance, which may lead, for example, to problems in effectively managing risks across projects. Finally, DOE recently changed its goals for "successful" cleanup projects, reducing the amount of work and raising the allowable cost increases against the near-term baseline. DOE has initiated several actions to improve project management, but it is too early to determine whether these efforts will be effective.