NUCLEAR WASTE

Absence of Key Management Reforms on Hanford's Cleanup Project Adds to Challenges of Achieving Cost and Schedule Goals

What GAO Found

DOE's initial approach called for treating 10 percent of the site's high-level waste by 2018 and for operating the plant until treatment was completed in 2046—well past a regulatory deadline to complete treatment by 2028. In 2002, DOE decided to accelerate cleanup by about 20 years and reduce the project's $56 billion cost by $20 billion. In the short term, however, several factors, including the accelerated approach and contractor performance problems, have lengthened construction time and raised contract costs by $1.4 billion to $5.7 billion.

Because of long-standing problems that preceded Hanford's contract, DOE has instituted reforms in both contract and project management. DOE's 2000 Hanford contract implemented the contract performance reforms, including linking contractor fees to cost and schedule performance. The contract did not, however, implement project management reforms, such as an overall plan to accomplish waste treatment by the regulatory deadline.

Not implementing project management reforms at the outset has added to the risks in cleaning up Hanford's tank waste. First, to start quickly, DOE committed to a “fast-track” process in which design, technology development, and construction are performed concurrently on different aspects of the project. For projects of Hanford's complexity, this approach is not compatible with controlling costs and schedules. Second, DOE has delayed completing analyses needed to determine the most cost-effective approach to waste separation and may have missed savings opportunities of at least $50 million a year. Third, DOE has not adequately defined or communicated the potential effects of a legal challenge to its overall plan for minimizing how much high-level waste is disposed of in an underground repository. Unless effectively managed, an adverse legal outcome could increase project costs by tens of billions of dollars.

High-level Vitrification Plant at Hanford's Waste Treatment Construction Site, March 2004

Source: DOE photo.