



Highlights of [GAO-04-457](#), a report to congressional committees

Why GAO Did This Study

In 1988, radioactive contamination was found in the drinking water wells of residences near the federal government's uranium enrichment plant in Paducah, Kentucky. In response, the Department of Energy (DOE) began a cleanup program. In 2000, GAO reported that DOE faced significant challenges in cleaning up the site and that it was doubtful that the cleanup would be completed as scheduled by 2010 and within the \$1.3 billion cost projection. GAO was asked to determine (1) the amount of money DOE has spent on the site, the purposes for which it was spent, and the estimated total costs for the site; (2) the status of DOE cleanup efforts; and (3) the challenges GAO previously identified that continue to be issues for DOE.

What GAO Recommends

GAO recommends that DOE (1) involve Commonwealth of Kentucky and EPA early in the development of both overall cleanup plans and specific projects to resolve concerns and reach more timely consensus on cleanup decisions and (2) in conjunction with Kentucky and EPA, identify external technical peer review groups with environmental cleanup expertise to facilitate timely resolution of any future differences. In commenting on the report, EPA and Kentucky agreed with the report's two recommendations. DOE provided technical comments, but did not comment on our recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-04-457.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Robin M. Nazzaro at (202) 512-3841 or nazzaror@gao.gov.

NUCLEAR WASTE CLEANUP

DOE Has Made Some Progress in Cleaning Up the Paducah Site, but Challenges Remain

What GAO Found

From fiscal year 1988 through 2003, DOE spent \$823 million (in 2002 dollars) at the Paducah site. Of this total, DOE spent about \$372 million (45 percent) for a host of operations activities, including general maintenance and security; \$298 million (36 percent) for actions to clean up contamination and waste; and \$153 million (19 percent) for studies to assess the extent of contamination and determine what cleanup actions were needed. DOE currently projects that the cleanup will take until 2019 and cost almost \$1.6 billion to complete—9 years and about \$300 million more than DOE's earlier projection. The \$1.6 billion, however, does not include the cost of other DOE activities required at the site after the plant ceases operations, including final decontamination and decommissioning of the plant and long-term environmental monitoring. DOE estimates these activities will cost almost \$5 billion and bring DOE's total costs at the site, including the \$823 million already spent, to over \$7 billion through 2070 (in 2002 dollars).

DOE has made some progress in cleaning up contamination and waste at Paducah, but much of the work remains to be done. For example, while DOE has removed about 4,500 tons of scrap metal, almost 50,000 tons of contaminated scrap metal remain. Similarly, while DOE's pilot test of a new technology for removing the hazardous chemical trichloroethene (TCE) from groundwater at the site had promising results—removing about 99 percent of the TCE in the test zone—the technology will not be fully implemented for more than a year.

Two of the four challenges GAO identified in 2000—DOE's plans to use untested technology and questionable assumptions that funding for the cleanup would increase—no longer pose the impediment to the cleanup they once did. Two others—uncertainty over the scope of the cleanup and difficulty obtaining timely stakeholder agreement on the cleanup approach—are the principal challenges that remain. First, the actual scope of the cleanup is not yet known. As a result, any additional cleanup actions, the costs of those actions, and the time frame for DOE to implement them are also unknown. Second, DOE and the regulators—the U.S. Environmental Protection Agency (EPA) and Kentucky—have had difficulty agreeing on an overall cleanup approach, as well as on the details of specific projects. Over time, these disagreements have undermined trust and damaged the parties' working relationship. After involving EPA and Kentucky early in the cleanup planning process, as it has done successfully at other sites, DOE officials discontinued this approach early in 2001, due in part to concerns about the growing cleanup scope, associated costs, and that the planned actions were excessive in relation to the risk. The result was an almost 2-year dispute that delayed progress. This poor working relationship has also prevented the parties from quickly reaching agreement on the technical details of specific projects. Unless DOE and the regulators can reach and maintain agreement on key aspects of the cleanup and quickly resolve technical differences, progress at Paducah could continue to be plagued by delays.