

What the innovation is:

Rocky Flats was the largest, safest, and most cost-effective environmental cleanup of its kind ever completed in the world, and it was heralded as one of the most successful incentive fee contracts ever executed by the federal government.

Why it is innovative:

In 1994, the U.S. Department of Energy (DOE) estimated the cleanup would cost \$36 billion and take 65+ years. Following the first 5-year contract that launched the cleanup effort, DOE awarded Kaiser-Hill Company, LLC (KH) a \$3.96 billion contract with a completion goal of 12/06. A 2000 GAO report cited a 1% chance of successful closure by 2006; a 2001 GAO report cited a 15% chance. KH completed closure in 10/05 (14 months ahead of schedule) for \$3.44 billion (\$500+ million under budget). *National Geographic* called Rocky Flats “DOE’s poster child for cleanup success.” U.S. Rep. Bob Beauprez noted, “I remember President Kennedy’s speech about [putting] a man on the moon ... [This] is one of those kinds of missions that said ‘yes we can.’” Senator Wayne Allard said, “Kaiser-Hill [made] the impossible, possible.”

What it changed or replaced:

In the past, DOE managed Rocky Flats with assistance from Management and Operations (M&O) contractors. The risk of innovative technological approaches was largely retained by DOE, and risk-reward opportunities for the M&O contractors were limited. DOE, in consultation with regulatory and stakeholder parties, sequenced work so as to reduce the greatest perceived risks first; however, this solution slowed project completion and increased worker risk. In addition, the existing site workforce thought they had lifetime jobs manufacturing weapons, making the idea of closing the site and working themselves out of jobs a foreign idea. Moreover, safety violations were levied during early project execution, and relations with project stakeholders (e.g., DOE, local communities, special interest groups, and local unions) were strained. To further complicate matters, in 1994 DOE ranked Rocky Flats as one of the nation’s most significant nuclear vulnerabilities, and Building 771 was called the “most dangerous building in America” during an *ABC News Nightline* broadcast.

Where/when it originated and has been/is expected to be used in the future:

The groundbreaking contract model is now being used at other DOE and government sites that have cleanup and closure missions.

Identify each innovation:

(a) New regulatory framework. In 2000, DOE and KH signed a first-of-its-kind incentive-based accelerated closure contract. KH’s detailed, multiyear closure plan provided an aggressive yet credible roadmap for accelerating Rocky Flats’ closure. The plan, the most detailed to date in any DOE operations, contained 16,000 closure activities. **(b) Workforce selection.** Many nuclear sites replace production-era workers in the decontamination and decommissioning (D&D) work phase, but KH employed the existing workforce through site closure. **(c) Profit sharing.** KH tied individual rewards to organizational success. Over 20% (\$100 million) of KH’s incentive fee was used to motivate employees to work safer, faster and smarter. A \$5 million program helped 4,000+ workers transition to new jobs. *ENR* magazine says KH “implemented a new management strategy using non-traditional approaches and incentives” and “won the respect of site employees and contractors, stakeholders, and regulators.” **(d) Treatment.** KH uncovered 76 unique waste streams that no U.S. facility was certified to take. Each had a viable treatment option and was shipped offsite. **(e) Technology.** KH implemented an innovative chemical decontamination technique that removed radioactive contamination from the surfaces of thousands of contaminated gloveboxes, reducing worker exposure and saving \$100+ million; adapted systems to reduce hazardous size-reduction work; eliminated thousands of labor hours by coating shipping containers carrying radioactive waste and developing a faster way to loosen lead-lined gloves from steel boxes used for plutonium handling; and designed a tool to expedite shipment of 12,000 gallons of sludge. **(f) D&D.** KH used controlled explosives/remote blasts to demolish subsurface structures and developed a process to dislodge concrete from steel reinforcement (buildings were built to withstand bomber attacks), hasten demolition, and reduce worker risk. **(g) Safety.** KH completed 60+ million hours of work with no life-threatening injuries or environmental releases. KH’s safety innovations are being implemented at DOE sites nationwide. **(h) Public/private partnership.** KH made all project data available to DOE, state regulators, and local communities. Public understanding of cleanup decisions allowed issues to be resolved early and created public support for Rocky Flats’ goals.

ROCKY FLATS CLOSURE PROJECT

2007 Nova Award Nomination 13

The Rocky Flats Closure Project — Safe, accelerated cleanup 14 months ahead and \$500 million under



More than 3.5 million square feet of buildings were dismantled and more than 800 facilities were demolished.



Workers used a spray-on coating that was used for over-the-road packaging for large pieces of contaminated equipment.



Kaiser-Hill completed more than 60 million person-hours of work with no life-threatening injuries or environmental releases. Many of our best-in-class safety innovations are being implemented at DOE sites nationwide.



The offsite shipment of thousands of drums of radioactive and hazardous waste and tons of plutonium and uranium is a key component to the closure of the site.



More than 1,457 contaminated glove boxes (stainless steel enclosures where workers handled nuclear materials) were cleaned and removed.

Current Fiscal Month: **October, 2006**

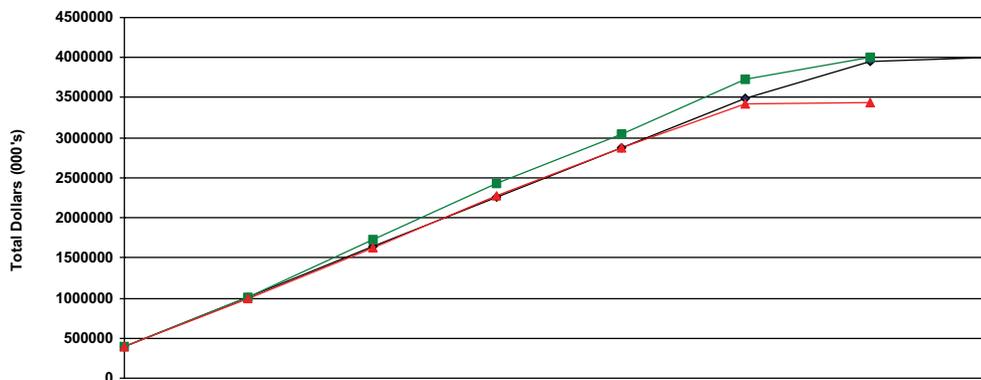
Report Project F06Oct_Base

11/17/05

ROCKY FLATS CLOSURE PROJECT COST PERFORMANCE GRAPH

WBS Level 1 - Total Site, All Projects

Target Costs



	2000	2001	2002	2003	2004	2005	2006	2007
BCWS	400,478	1,015,499	1,635,954	2,251,899	2,868,689	3,486,058	3,951,655	3,996,745
BCWP	397,467	1,001,837	1,725,561	2,428,371	3,052,535	3,736,908	3,996,745	0
ACWP	399,779	999,689	1,620,169	2,273,161	2,870,738	3,423,148	3,442,850	0

