

Safety first: Despite the dangers of demolition, working well i

Rocky Flats safety stats rock

When Kaiser-Hill took over the management of Rocky Flats in 1995, workers on the U.S. Department of Energy site had made nuclear weapons components for more than 35 years. Kaiser-Hill's mission is the safe closure of the entire facility. Today, nearly all of the weapons-grade plutonium has been shipped off-site for safe storage, and the focus is beginning to shift from radiological safety to the risks associated with demolishing hundreds of buildings.

The site is aggressively moving toward a safe cleanup and closure by 2006, and the safety of people and the environment is the project's first priority.

"If every worker does each task safely and correctly the first time, every time, the schedule will take care of itself," said Jerry Lyle, vice president and program manager for Safety, Engineering & Quality Programs. "Every worker is empowered to stop work if

they have safety questions or concerns."

Kaiser-Hill assembles more than 50 managers and DOE staff at the beginning of each day to review safety issues and implements changes when necessary. In 2002, more than 9.5 million man-hours were worked—work that is considered the most dangerous in the nation—without a serious, work-related injury.

"We are never satisfied with our safety performance," Lyle said.

Workers are key to safety success

Rocky Flats has a fully implemented integrated safety management program that is dependent on active worker participation. This direct involvement led to many of the innovations that are key to Kaiser-Hill's success. Workers participate in the Joint Company Union Safety Committee, which includes 18 full-time union safety representatives. Safety professionals, managers and experienced workers provide

expertise to eight centers of excellence that find solutions to safety and technical issues as they arise.

World's largest user of respirators

One of Rocky Flats' greatest challenges is dismantling and demolishing nuclear buildings in a radiologically contaminated environment. To protect cleanup workers, the site uses 12,000 to 15,000 respirators a month, more than anywhere else in the world. (Because Rocky Flats keeps in supply hundreds of respirators, Kaiser-Hill was able to spare 100 full-face respirators to send to Con Edison, the power utility for New York City, to assist workers as they made repairs following Sept. 11, 2001.)

New technology improves safety

Applying new and adapting existing technologies to meet unique challenges has helped improve safety at Rocky Flats. For example, Kaiser-Hill developed chemical decontamination techniques for gloveboxes, tanks and equipment to remove high levels of radiological contamination. In many cases, this process allows those items to be disposed of in one piece as low-level waste, reducing worker exposure to the radiological and industrial hazards inherent in cutting up and packaging highly contaminated items for disposal.

Rocky Flats plutonium is processed and then packaged in containers such as the 3013 can shown below. Once prepared, it is shipped off-site for safe storage.



Accomplishments

When it comes to nuclear-waste cleanup, the progress at Rocky Flats is staggering. By the end of 2002:

- 70 percent of the overall project had been completed.
- Most of the weapons-grade plutonium had been shipped from the site.
- All the plutonium residue—106 metric tons—had been processed and packaged.
- All the actinide liquids in Building 771 have been drained and processed.
- More than 900 of the 1,324 gloveboxes had been dismantled, packaged and shipped offsite.
- Over 200 buildings had been demolished, and seven of the 10 most challenging environmental projects had been completed.
- With an average of 90 trucks leaving the site each week, Rocky Flats is the largest-volume shipper of radioactive waste in the world.

Never being satisfied with safety performance has resulted in Rocky Flats' accident rate being significantly below the national average.

