



Security & Emergency Management

Client

US Department of Energy

Location

Rocky Flats,
Golden, CO, USA

"The review team concluded that the project management systems being used are best-in-class for Department of Energy sites."

DOE Office of Performance
Assessment, June 2004

Nuclear Complex Security Services

Project Description

In October 2005, CH2M HILL, as managing partner of Kaiser-Hill, successfully completed the physical work to clean up and close the Rocky Flats nuclear site in Golden, Colorado.

The closure of Rocky Flats represents the culmination of a ten-year effort to complete the largest, most complex environmental cleanup project in United States history and converts an environmental liability into a community asset. Rocky Flats is also the first large nuclear weapons facility to be decommissioned and closed anywhere in the world. The site will become a national wildlife refuge.

When CH2M HILL was awarded the contract for the cleanup of Rocky Flats in 1995, we immediately assumed responsibility for safeguarding more than 21 tons of weapons grade plutonium and more than 100 tons of additional fissionable material, requiring a rigid denial security posture to protect against loss of special nuclear material and terrorist threats. As part of the closure process, the security posture had to constantly evolve to accommodate handling, moving, processing, repackaging and shipping operations, as well as construction and deconstruction activities. CH2M HILL periodically moved/consolidated secure areas as part of closure activities, requiring not only the development and implementation of the upgraded security approach at the beginning of the project, but also very near continuous planning and integration of an evolved security approach to maintain the high security posture as the site has changed during deactivation, decommissioning, and construction/deconstruction activities.

Rocky Flats was one of the most secure facilities in the world. Prior to CH2M HILL's contract at Rocky Flats in 1995, the DOE cited inadequate performance of the security system as a primary reason for termination of a predecessor company's contract. Through vigorous management, redesign, and upgrades to the systems, procedures, and security personnel, we received the highest rating possible in the bi-annual security assessment performed by DOE headquarters in 2000 and again in 2002.

The Rocky Flats Closure Project employed more than 5,000 people and required telecommunications operations and maintenance support services, including outside plant design-build upgrades, and remote network operations center operations for voice and data services and cyber security. Due to the work being done, the Rocky Flats site had an inherent requirement for security and high availability through networks and systems. Thorough reviews were conducted on a quarterly and annual basis. These reviews included security policies and procedures as well as an assessment of policy effectiveness. Out of the review process came the development, implementation, and additional operational procedures, additional training, or corrective actions required to maintain an 'Excellent' level of cyber security.

CH2M HILL designed a state-of-the-art nuclear security system for the entire facility that included a redesign of the security perimeter with the installation of cutting-edge technology sensors, lighting, and CCTV assessment.

"This rating is unprecedented, and one in which all who plan a role in the Site's safeguards and security performance can take enormous pride."

Paul Golan, Acting Manager,
DOE, RFETS Field Office, 2000,
Office of Independent Assessment

Multiple layers of vehicle barriers and personnel access control technologies were employed. More than eight linear kilometers of crash barriers used various combinations of ditches, large rocks, steel cables, concrete barriers, fixed bollards, sliding gates and hydraulic wedge pop-up barriers. Personnel entrance gates included hardened fighting position enclosures for armed guards, metal screening detectors, x-ray machines, photo badge verification with magnetic strip and PIN, biometric ID and security turnstiles.

CH2M HILL operated the DOE classified and unclassified computer networks at Rocky Flats, which serviced over 3,500 users. Every two years, we reviewed, developed, implemented and maintained the security policies and procedures used to provide the cyber security for the network. All components of the security system were provided with backup electrical power, which underwent routine and emergency maintenance and calibration.

CH2M HILL also developed and implemented emergency planning and preparedness programs for Rocky Flats, according to FEMA, DOE and EPA guidelines, including detailed drill and exercise programs. We developed business continuity and disaster recovery planning for the Rocky Flats information technology systems, including full implementation of their disaster recovery process and associated training and procedural development. To comply with National Fire Academy (NFA) and National Fire Protection Association criteria, we implemented the NFA Incident Management System through the development of a Site Incident Command Organization.