

Rocky Flats Overview

Introduction

The Rocky Flats Environmental Technology Site is an environmental cleanup site located about 15 miles northwest of downtown Denver. Rocky Flats is designated by the U.S. Environmental Protection Agency (EPA) as a Superfund cleanup site. Until December 1989, the Rocky Flats Plant made components for nuclear weapons using various radioactive and hazardous materials, including plutonium, uranium and beryllium. Nearly 40 years of nuclear weapons production left behind a legacy of contaminated facilities, soils and ground water. A massive accelerated cleanup effort began in 1995.

The Mission – Make It Safe. Clean It Up. Close It Down.

Rocky Flats is well on a path toward accelerated closure. Key mission activities include: Special Nuclear Materials (SNM) stabilization, packaging and consolidation; deactivation and decommissioning of facilities; environmental restoration; property disposition; offsite shipment and waste disposition.

The Site

Rocky Flats is similar to a small city. It comprises more than 700 structures located on a 385-acre Industrial Area surrounded by

nearly 6,000 acres of controlled open space. This open space serves as a buffer between Rocky Flats and the encroaching communities and is home to many species of animals and plants. Rocky Flats has its own fire department, medical offices, cafeterias, garage and gas pumps, steam plant, water treatment plant, and sewage treatment plant.

A Top Priority

Several factors set Rocky Flats apart from other weapons sites and have made it a national priority for cleanup.

- Rocky Flats is located in close proximity to a major metropolitan area. More than 2.5 million people live within a 50-mile radius of the site; 300,000 of those live in the Rocky Flats watershed.
- Rocky Flats has the largest inventory of plutonium that is not in final weapons form of all Department of Energy (DOE) sites.



The key priority of site management and surrounding community leaders is the safe, accelerated closure of Rocky Flats. Kaiser-Hill and the DOE, working in close coordination with Rocky Flats stakeholders, are working to a plan to substantially complete the cleanup and closure of Rocky Flats by 2010, or by an even more aggressive goal of 2006. Key factors impacting the ability to achieve accelerated closure will be the adequacy of funding levels and the availability of locations to ship the site's waste and nuclear materials. The closure of Rocky Flats is estimated to cost between \$6 billion and \$8 billion.

Site Operators and Overseers



Rocky Flats is owned by the DOE and operated by Kaiser-Hill Company under a performance-based Integrating Management Contract. Under the contracting structure, Kaiser-Hill integrates work at the site performed by a team of contractors, each with expertise in a specific area of site activities. Kaiser-Hill Team members include: Kaiser-Hill, integrator; Safe Sites of Colorado, nuclear operations; Rocky Mountain



Remediation Services, waste management, environmental cleanup and decontamination and deactivation; Rocky Flats Closure Site Services, site operations; DynCorp, medical services and computer and information technology; and Wackenhut Services, security.



The DOE Rocky Flats Field Office performs direct oversight of the contract at Rocky Flats with additional oversight from DOE Headquarters. In addition, the site is regulated by the Colorado Department of Public



Health and Environment (CDPHE) and the U.S. Environmental Protection Agency (EPA). The Rocky Flats Cleanup Agreement, signed by DOE, EPA and CDPHE on July 19, 1996, is the regulatory agreement that provides the framework for and governs cleanup activities at the site. Nuclear activities at the site also fall under the oversight of the Defense Nuclear Facilities Safety Board.

History and Past Mission: Nuclear Weapons Production

In March 1951, the Atomic Energy Commission selected the Rocky Flats area as the site for a nuclear weapons production facility. From 1952 to 1989, the primary mission of Rocky Flats was the production of nuclear and non-nuclear weapons components for the nation's nuclear weapons arsenal. The key component produced at Rocky Flats was the plutonium pit, commonly referred to as the "trigger" for nuclear weapons. The pit provides

energy to fuel the explosion of a nuclear weapon. In 1989, nuclear production work was abruptly halted to address environmental and safety concerns. This suspension of operations was initially thought to be temporary; however, the President's 1992 announcement of the cancellation of the W-88 Trident Warhead Program brought a permanent halt to Rocky Flats' nuclear production mission. In 1993, the Secretary of Energy announced the end of the Rocky Flats nuclear production mission.

The Legacy

Special Nuclear Materials

Rocky Flats houses many tons of plutonium and uranium. Rocky Flats' plutonium in the form of pits is being shipped to the Pantex Site near Amarillo, Texas, and other Rocky Flats plutonium metals and oxides are planned to be shipped to the Savannah River Site in South Carolina beginning in 2000. Highly enriched uranium is being shipped to Oak Ridge, Tennessee.



Environmental Contamination

Approximately 170 areas of possible environmental contamination have been recorded, many of which will undergo further characterization and analysis and fewer than 25 of these areas are expected to require extensive cleanup or management actions.

Radioactive Waste

Rocky Flats currently has 1,800 cubic meters of transuranic waste; 9,000 cubic meters of low-level mixed radioactive waste; and 9,000 cubic meters of low-level radioactive waste. During



cleanup operations, an estimated 15,000 additional cubic meters of transuranic waste; 40,000 additional cubic meters of low-level mixed wastes; and 120,000 additional cubic meters of low-level waste are expected to be generated. The majority of Rocky Flats' 100-plus tons of plutonium-content leftovers, called residues, will be disposed as transuranic waste. These residues contain 3.2 tons of plutonium

spread throughout more than 8,000 containers. Transuranic waste will be shipped to the Waste Isolation Pilot Plant in Carlsbad, New Mexico. In addition, certain residues, such as sand, slag and crucibles are being shipped to the DOE's Savannah

River Site in South Carolina. Low-level and low-level mixed wastes (which also contain chemical contaminants) are being shipped to the Nevada Test Site and a private disposal facility in Utah.

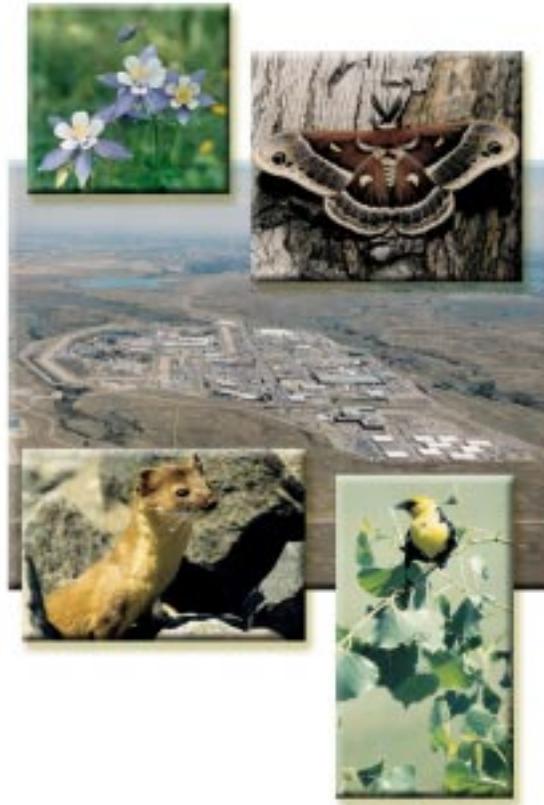
Budget and Operating Costs

The current annual Rocky Flats budget is approximately \$650 million. More than half of that \$650 million goes to maintaining the safety structure, security and basic operations of the site. Together these costs are called the “mortgage.” The remaining portion of the budget funds closure work activities at the site – such as the cleanup of environmental sites, the stabilization and safe packaging of plutonium leftovers and special nuclear materials, and the cleanup and demolition of buildings. Each year, the Site strives to decrease its operating costs, or “mortgage,” and increase the amount of funding available for cleanup and closure activities.

Safety

Safety is the top priority at Rocky Flats. The site has many systems in place to ensure the safety of the workers, the public, and the environment. These systems include extensive ventilation and filtration systems, alarms and monitoring systems, fire safety and emergency preparedness, nuclear criticality safety and radiation protection, to name a few.

Completing the accelerated closure of Rocky Flats will make the site safer for Colorado. The urgency to perform the cleanup work and ship waste and materials off site sooner is based on the fact that aging systems and facilities deteriorate with the passage of time and Rocky Flats was not designed to be a long-term storage facility for the waste and SNM that currently exist at the site. The site must meet both the challenge of the need to accelerate closure to reduce longer term risks and the challenge of maintaining the highest level of safety during cleanup.





U.S. Department of Energy

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For further information about Rocky Flats

Contact DOE Communication at (303) 966-5993, or Kaiser-Hill Communication at (303) 966-2882, or toll free at (800) 269-0157
(press *82882# when you hear the automated attendant)

Also, additional information about Rocky Flats is available on the internet at: <http://www.rfets.gov>