

NPL Site Narrative for Rocky Flats Plant (USDOE)

ROCKY FLATS PLANT (USDOE) Golden, Colorado

Conditions at proposal (October 15, 1984): The Rocky Flats Plant covers approximately 6,550 acres (about 11 square miles) in Jefferson County, near Golden, Colorado. The facility originally covered 2,000 acres, but a 4,550-acre "buffer zone" was added in 1974. The main processing operations are confined to approximately 384 acres within the buffer zone.

The plant began operations in 1952 under the direction of the Atomic Energy Commission. The current owner is the U.S. Department of Energy (USDOE). Actual operations at the plant have been performed by contractors. Dow Chemical Co. operated the plant until June 30, 1975, when the current operator, Rockwell International Corp., took over.

Since its establishment, the major operation at the plant has been the fabrication and assembly of components for nuclear weapons. These operations use plutonium, uranium, beryllium, stainless steel, and aluminum. The facility also recovers plutonium and separates and performs research on americium.

Releases of solvents, pesticides, plutonium, and tritium have contaminated soils, surface water sediments, and ground water at various locations on the facility. Plutonium contamination of soils and sediments has also been documented beyond the boundaries of the Federally owned land. Additionally, three evaporation ponds have contributed to nitrate contamination of ground water.

USDOE has completed some remedial work such as capping and removing plutonium-contaminated soils. USDOE is also improving liquid waste treatment systems to reduce discharge of liquid effluents.

Approximately 80,000 people live within 3 miles of the facility. Downtown Denver is approximately 16 miles to the southeast, while Golden and Boulder are approximately 8 miles south and north, respectively.

Status (July 1985): USDOE continues to conduct remedial work by removing "hot spots" of contamination. A recent court settlement requires USDOE to conduct remedial activities on private land east of the plant as a condition of its sale to local governments.

Status (October 4, 1989): On July 31, 1986, EPA, USDOE, and the Colorado Department of Health (CDH) entered into a Federal Facility Compliance Agreement (FFCA). The FFCA defined roles and set schedules for investigation and cleanup of past disposal problems and addressed hazardous and mixed waste compliance issues. Under the FFCA, USDOE started a remedial investigation/feasibility study (RI/FS), identifying 166 on-site and off-site areas and grouping them into 107 high-, medium-, and low-priority areas.

EPA and CDH have been reviewing various draft RI/FS documents and Interim Response Action (IRA) proposals. These review activities have focused on the high (Hillside 881) and medium (903 Pad, East Trenches, Mound) priority areas. Hillside 881 is near the Woman Creek drainage, which eventually

discharges into Standly Lake, a major drinking water supply reservoir for several Denver suburbs. A September 1988 USDOE report identified Hillside 881 as the most significant potential risk to populations. This preliminary finding will be reassessed during implementation of USDOE's 5-year Environmental Restoration Plan.

Other surface drainage concerns at Rocky Flats include surface and subsurface migration through North and South Walnut Creek, which eventually discharges to Great Western Reservoir, a major drinking water source for Broomfield. In July 1989, the city constructed a ditch to divert North and South Walnut Creek around the Reservoir because of concern that past spills and other releases of contaminants to the creek may continue.

On May 25, 1989, EPA, CDH, and USDOE started negotiations on an Interagency Agreement (IAG) under CERCLA Section 120. EPA anticipates that the IAG will replace the 1986 FFCA and will establish goals for investigation and cleanup activities at Rocky Flats. EPA also anticipates using the IAG process to define specific roles for EPA, CDH, and USDOE, make decisions regarding potential IRAs, group areas into operable units, and address any areas discovered during the studies. IAG negotiations are scheduled to conclude shortly.

Addressing the 166 contaminated areas identified thus far is estimated to take at least 30 years and cost between \$400 million and \$2 billion.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.