

FACT SHEET



United States
Department of Energy
Grand Junction Office

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Monticello Millsite Remediation

The U.S. Department of Energy will initiate the excavation and hauling of tailings and contaminated material in May 1997 at the Monticello millsite in Monticello, Utah. Remediation of the former millsite will remove approximately 2.3 million cubic yards of radioactive mill tailings and other materials and place them in a permanent repository located 1 mile south of the existing millsite.

Background

The Monticello mill was built in 1942 to provide vanadium during World War II. The plant was later modified to mill uranium ore. Vanadium, an element used to strengthen steel, and uranium were milled intermittently until 1960.

The millsite occupies a 110-acre tract on the southeast edge of Monticello. Four tailings piles cover almost 50 percent of the millsite. When the mill was closed, approximately 2.3 million cubic yards of low-level radioactive mill tailings, contaminated soil, and other miscellaneous debris remained on site.

The U.S. Department of Energy (DOE) Grand Junction Office, with oversight provided by the U.S. Environmental Protection Agency (EPA) and the State of Utah, is conducting the cleanup of the millsite and more than 400 vicinity and peripheral properties contaminated with mill tailings. Cleanup has been ongoing since 1983. The purpose of the cleanup is to minimize risks to the public and the environment from exposure to the tailings and the radon gas they produce.

Repository

Tailings removed from the properties and the millsite will be hauled to a repository on DOE-owned land, 1 mile south of the millsite. A dedicated haul road will be used to keep haul trucks off public roads. The repository also can be accessed from Highway 191 through the support area west of the repository.

The repository contains a liner system designed to protect groundwater under the repository and a leachate collection system above the liner to drain moisture (leachate) draining from the tailings. The leachate is pumped to an evaporation pond. The leachate also can be used in the repository for dust control. The repository contains a leak-detection system to monitor the liner system.

When completed, the repository will cover about 80 acres. The repository cover has been designed to blend into the surrounding lands through use of natural

vegetation and, in small areas, rock selected to blend in with the area. The cover will control the emission of radon gas to acceptable levels. The cover also will control precipitation from moving into the tailings.

DOE will be responsible for the long-term surveillance and maintenance of the repository. This will entail continued maintenance of the cover to ensure that vegetation is successful and there is no erosion. The evaporation pond will be maintained until it is no longer needed, at which time it will be removed.

Excavation

Remediation of the millsite will commence in May 1997 and involves excavation of the mill tailings and other contaminated materials. As these materials are

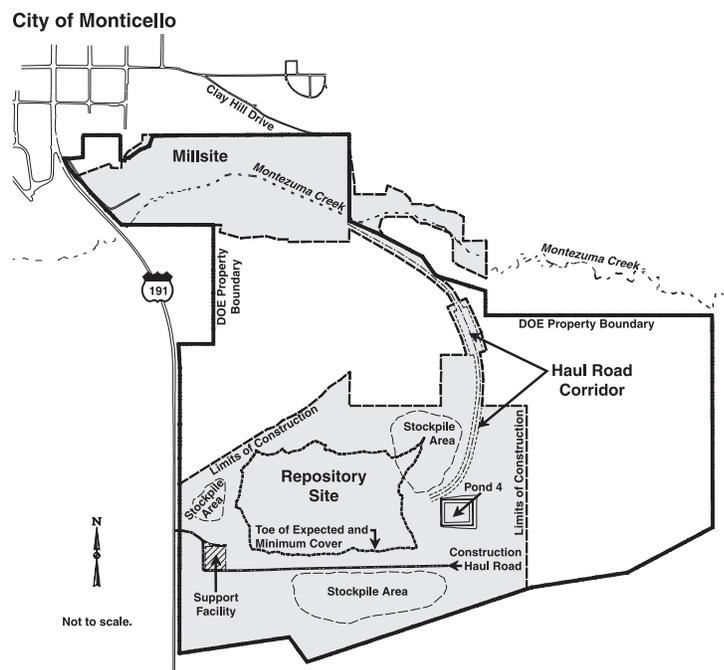


Figure 1. Monticello Millsite and Repository

excavated, they will be loaded into large trucks and hauled to a permanent disposal cell south of the millsite by way of a dedicated haul road (Figure 1). To minimize impacts to the public from truck traffic, tailings will not be transported on public roads from the millsite to the repository.

Millsite excavation and truck haul activities will be conducted between the hours of 7:00 a.m. and 8:00 p.m., 7 days a week, until all materials are transported to the permanent repository. Other activities, such as maintenance and refueling, which are not expected to create much noise, will be conducted between 8:00 p.m. and 7:00 a.m.

To maintain the clean condition of the haul road, decontamination pads will be located at each end for removal of any contamination from the trucks. This will minimize contamination to the haul road and will prevent contamination of storm water flowing from clean lands and contributory water to Montezuma Creek.

Schedule

Major activities on the project are

- Complete Repository and Support Area Construction — May 1997
- Initiate Excavation of Tailings Piles. Excavation of the tailings piles will be generally from the west to the east on the north side of Montezuma Creek — late May or early June 1997.
- Begin Winter Shutdown — December 1997
- Initiate 1998 Tailings Excavation and Haul — April 1998
- Complete Tailings Placement — Fall 1998
- Initiate Repository Cover Construction — Fall 1998
- Complete Cover Construction — Fall 1999

Surface Water

Montezuma Creek, a perennial stream that flows west to east through the millsite, is the main source of surface water in the Monticello area. In 1993, collection ditches were constructed to prevent contamination from entering the creek. The collection ditches transport water to a lined collection pond at the east end of the millsite. The water is then treated at a wastewater treatment plant before being released into Montezuma Creek.

During excavation, the creek will be temporarily rerouted. Contaminated portions of the creek bed will be excavated. The wastewater treatment plant and the collection pond will be two of the last areas to be remediated following cleanup of the millsite.

Once removal of contamination is completed, surface water coming onto the millsite will be controlled through a series of ditches and underground piping to control erosion. Final grading and runoff controls for the millsite will be established during final restoration. Montezuma Creek will be restored to an alignment that will closely resemble its course prior to the construction and operation of the millsite.

Millsite Restoration

In July 1995, the Site Specific Advisory Board (SSAB) recommended to DOE that the remediated millsite be deeded to the city of Monticello. The SSAB is working with DOE and interested parties to produce plans for the development of the remediated millsite for recreational uses.

DOE will prepare an Intermediate Design during 1998 for restoration of the millsite. A Conceptual Design presenting restoration ideas was completed in December 1996. DOE will hold several advertised public meetings on the restoration plans to gain public input. The plans will be available for public comment.
