

Moab Uranium Mill Tailings Site



View of the Moab uranium mill tailings site looking north. The city of Moab is across the river to the southeast. Image from the [DOE fact sheet for the Moab tailings site](#).

Moab is a rural community in Grand County, Utah of approximately 5,000 permanent residents, located immediately south and east of the Colorado River. In 1956, the Uranium Reduction Company constructed the Moab uranium mill approximately three miles northwest of the city. The facility was active until 1984, processing an average of 1,400 tons of ore per day.

During its years of operation, the Moab mill generated approximately 16 million tons (or 12 million cubic yards) of mill tailings and tailings-contaminated soil. These tailings were pumped to an unlined impoundment near the Colorado River and accumulated over time, eventually forming a pile more than 80 feet thick. Although the milling process removed more than 90% of the uranium from the ore, radium and other radioactive decay products remained in the tailings, which have an average radioactivity of 665 picocuries per gram of radium-226.

Decommissioning activities occurred between 1988 and 1995, during which an interim cover was placed over the tailings pile. In 2001, the site was designated a Uranium Mill Tailings Remedial Action (UMTRA) site and the U.S. Department of Energy (DOE) became responsible for remediation, which involves removing the mill tailings and associated contaminated soil to the Crescent Junction disposal site, located 30 miles

north of Moab. Transport of tailings material began in April 2009, primarily via railroad. As of 2017, the project has shipped 8.7 million tons of tailings, or roughly 54% of the total. Estimates of project completion vary between 2025 and 2032. Area residents have expressed concerns about potential health effects associated with exposure to tailings material, including cancer.

Documents:

[Cancer Incidence Study \(2018\)](#)



- This report is a statistical review of cancer incidence among residents of Moab from 1980 through 2014.
 - Click [here](#) to see a map of the study area.
- The results suggest the presence of a temporal cluster of lung and bronchial cancer in Moab among men, but do not indicate a cluster among women.
 - The rate of lung and bronchial cancer was significantly elevated in men in five of the seven analytical periods, including the last period (2010-2014). The increased risk ranged from 2.0 to 3.3 times higher than expected when compared to rates in the rest of the state.
 - The lung and bronchial cancer rate was significantly elevated in both males and females combined in all analytical periods except 2005-2009.
 - The rate of lung and bronchial cancer in women was only significantly elevated in the 1995-1999 period.
- Smoking is by far the most important risk factor for lung cancer; other risk factors include respiratory exposure to radon, asbestos, and certain other substances such as uranium, arsenic, and diesel exhaust.
 - The smoking rate in Moab is roughly twice as large as the rest of the state (22% vs. 10.5%).
- The local health department is recommended to work with relevant programs within the Utah Department of Health, such as the Cancer Control Program and the Tobacco Prevention and Control Program, to identify screening and health education services that could be made available to area residents.
- Residents are encouraged to be aware of cancer risk and those social and behavioral factors in their control, and to work with their local health department and health care provider for screening.
- As some cancer types have long latency periods, continued follow-up of this study area is recommended.