



Weldon Spring, Missouri, Site Water Treatment

This site is managed by the U.S. Department of Energy Office of Legacy Management.

Weldon Spring Site Remedial Action Project (WSSRAP) dewatering efforts took place during the remediation of the Chemical Plant and Quarry sites, resulting in more than 290 million gallons of contaminated water being treated, tested, and released into the Missouri River in compliance with the requirements of National Pollutant Discharge Elimination System (NPDES) permits issued by the State of Missouri.

Uranium materials were processed at the U.S. Atomic Energy Commission's Uranium Feed Materials Plant from 1957 to 1966. The ore was processed in a nitric acid solution that separated the uranium from other chemicals. The byproduct, called raffinate, was neutralized with lime and then placed in four settling basins, called raffinate pits. Over the years, rainwater that filled the pits became contaminated. A major part of the site's remediation process was to remove and treat the water from the pits so the raffinate waste could be removed, stabilized, and placed in the onsite disposal cell.



Raffinate Pit 4 Prior to Cleanup Activities

The project's dewatering process began in 1992 with the development of the mobile Sump-Water Treatment Plant. This was the site's first water treatment facility. It operated through 1995, assisting in the demolition of 44 buildings and structures onsite by pumping and treating water from each building's sump area.

The Quarry Water Treatment Plant became operational in the fall of 1992. This plant pumped and treated water from the 9-acre limestone Quarry. The first batch of treated water from this plant was tested and released in November 1992. During its operation, the Plant treated 70 million gallons of contaminated water. Decommissioning of the Plant began in January 2001 and dismantling operations began in March 2001. The final remnants of the Plant were placed in the disposal cell in June 2001.



Quarry Water Treatment Plant with Untreated Water Basin in Foreground

The Site Water Treatment Plant became operational in April 1993. The Plant was constructed for two separate operations. Train 1 was designed to treat runoff from temporary storage areas and water from decontamination of equipment and buildings. Train 2 was designed to treat water in the raffinate pits.



*Site Water Treatment Plant with
Treated Water Basin in Foreground*

The first batch of treated water from Train 1 was tested and released to the Missouri River in May 1993. Train 2 was started in September 1995. With both systems working, the Plant treated and released 222 million gallons of water.

The Site Water Treatment Plant was decommissioned in May 2000. The Plant was dismantled and placed in the disposal cell in June 2000.



*Two of Several Filters within the
Site Water Treatment Plant*

Contacts

Documents related to the Weldon Spring Site are available on the DOE Office of Legacy Management website at <http://www.lm.doe.gov/weldon/sites.aspx>.

For more information about DOE Office of Legacy Management activities at the Weldon Spring Site contact:

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