

URANIUM'S POPULARITY, RESIDENTS' CONCERN BOTH ON THE RISE

Concerns about global climate change have renewed interest in nuclear power and driven prices for uranium to record highs, creating a resurgence of uranium mining in Colorado.

The Uravan mineral belt, the oldest uranium mining area in the United States, is historically the most productive uranium and vanadium region in Colorado, producing an estimated 63 million pounds of uranium and 330 million pounds of vanadium from 1948 to 1978. Colorado ranks third in the United States for uranium reserves, behind Wyoming and New Mexico.

There are 32 permitted and active uranium projects in Colorado, but only three mines—owned by Denison Mines Corp—are currently producing.

Still, uranium claims have skyrocketed in recent years—jumping from 107 in 2003 to more than 11,000 this year—and many more projects are being planned. Perhaps the most controversial of these is Powertech Uranium Corp.'s 6,880-acre Centennial Project in northern Colorado's Weld County, which would use open-pit and in-situ leach uranium mining. In-situ leach mining involves pumping water treated with chemicals into the ground to dissolve the uranium and then pumping the solution to the surface. The process has created concerns about possible groundwater contamination.

The project would be within and use water from the Laramie-Fox Hills aquifer, which covers most of the Denver Basin. In February 2001, there were 33,700 recorded wells in the aquifer.

Additionally, some residents worry that the project could also affect the Dakota-Cheyenne aquifer, which is Colorado's largest aquifer east of the Rockies. The Dakota-Cheyenne aquifer is in a geological layer known to hold uranium deposits and it spreads beneath some of the most populated areas of northern Colorado.

Jeff Parsons of the Western Mining Action Project noted that residents of Weld County are particularly concerned about groundwater contamination because the county is highly reliant on its agricultural economy, much of which is sustained through groundwater sources.

"This mine might operate for 10 years, but groundwater contamination is permanent, and that's simply not acceptable, particularly to the people who live there," Parsons said.

To ensure that Colorado's aquifers will not be damaged by in-situ uranium min-



Kevin Moloney

Robin and Jay Davis on the ranch they recently bought near the town of Nunn in Weld County.

ing, Gov. Bill Ritter in May signed into law a measure that requires uranium companies to prove that they can return groundwater to pre-mining conditions or levels in line with current state standards. A third-party contractor appointed by the state would be in charge of certifying the water quality.

The law also applies the standards of "designated mining operations" to all uranium mines. That would require existing uranium mines to submit an environmental protection plan to the Division of Reclamation, Mining and Safety.

Matt Garrington of Environment Colorado noted that in-situ leach mining is of particular concern because of the potential for excursions to nearby aquifers, which can contaminate neighboring wells. In addition to the uranium released through in-situ mining, other pollutants such as radium and selenium can also be released, he said. "These pollutants can have a deadly effect on the surrounding water and landscapes," he said.

Garrington said Colorado's sole experience with in-situ mining does not bode well. That mine, known as the Grover Test Site, increased radium levels 15 times above what the aquifer's safe, pre-mining condition had been, he said.

While Powertech's proposal has garnered the most attention so far, it is not the only in-situ leach mining proposal in the state. Similar projects are also being considered in Park and Fremont counties.

Park County is a major source of water for the Denver metro area. While it is possible to treat water to remove health hazards such as uranium and radium, Jim Miller of Denver Water said the city's current water treatment plants are not set up to remove con-

taminants such as uranium, radium, vanadium and molybdenum.

Even with more conventional mining operations, the threat of water contamination still exists. Energy Fuels Resource Corp.'s Whirlwind Mine, which straddles the Utah-Colorado border, calls for treating any excess ground water to meet state standards prior to discharge, but some local residents and environmental groups have expressed concerns about possible contamination of the Dolores River.

Perhaps the biggest concern is that the company plans to truck the uranium ore down John Brown Road, a steep, narrow gravel road featuring perilous drop-offs and hairpin turns as it runs alongside the Dolores. As many as 40 trucks per week are expected to eventually make the trip from the mine site to a nearby mill in Blanding, Utah.

The milling of the uranium ore that comes from the mines is also an environmental issue. Cotter Corp. is currently considering whether to reopen its mill in Canon City, one of only four mills in the United States capable of milling uranium. The mill has been shut down since March 2006.

The original mill, which was constructed in 1958 and has not been used since 1979, is currently designated as a Superfund site. In its recent five-year review of the cleanup effort, the Environmental Protection Agency found some groundwater contamination related to the site, even though the cleanup of soils in the area is now complete. John Hamrick, vice president of milling at the Cotter mill, said the company is cooperating with EPA and the Colorado Department of Public Health and Environment to resolve the issues brought up in the review.

Sharyn Cunningham, co-chair of Colorado Citizens Against Toxic Waste, said the mill's close proximity to the local community—an estimated 6,000 to 8,000 people live within a 2-mile radius of the Cotter site—makes decommissioning the mill the best option from a public safety perspective.

"If they tried to place a uranium mill like this in this location today, the government wouldn't allow them to do it because it's not remote enough from the population," Cunningham said. "We're concerned they may decide to build a whole new mill out there and continue the source of contamination in the community." □

—Eryn Gable