

Wyoming company proposes new technology to clean up abandoned uranium mines on site

SOURCE: GALLUP INDEPENDENT

DISA TECHNOLOGIES, INC.

WINDOW ROCK, Ariz. — A Casper, Wyoming-based company has been conducting presentations on the Navajo Nation on a new technology to clean up abandoned uranium mines on site.

The technology has not been used on largescale remediation operations but it has been tested on three different sites on the Navajo Nation, including the Quivira Mine in Church Rock, according to Disa Technologies' CEO Greyson Buckingham.

During a phone interview Friday, Buckingham said that his company has been working with Navajo Nation EPA and USEPA on the technology, known as high-pressure slurry ablation.

Simply put, this cleaning process does not include any chemicals to strip uranium or radon from sand grains in the mine waste, just water that can be recycled.

Buckingham said that his company conducted several tests that were efficient in reducing, on average, 90% of the uranium or radon from the samples collected in 5 gallon buckets from the sites. Buckingham said his company is now waiting for approval from the Nuclear Regulatory Commission before they can treat commercial quantities.

Navajo EPA's position

Navajo EPA Executive Director, Stephen Etsitty, told The Independent on Friday that he learned about Disa's technology soon after he was appointed by Navajo Nation President Dr. Buu Nygren last January, when his staff informed him that they had been working with Buckingham on a feasibility study since 2021.

"We are supportive of the technology," Etsitty said. "We see that it has potential to be beneficial at cleaning abandoned uranium sites. EPA has been behind this for the last four years. It's an initiative that was started in the previous administration that came to light through the Dine Uranium Remediation Advisory Commission."

Technology could change everything

If successful, the ability to clean up on site would free USEPA and Navajo EPA authorities from having to move thousands of tons of uranium contaminated material from more than 500 uranium mines on the Navajo Nation to uranium waste facilities elsewhere.

Disa's first attempt at getting approval to use the technology for remediation from the Nuclear Regulatory Commission in December 2022 was questioned however by the commission's staff.

In a memorandum dated April 24, 2023, NRC Chair Christopher Hanson wrote that the commission staff did not accept the application for a detailed licensing review because the technology described "met the definition of milling" under federal law.

At the time, Hansen's staff concluded that the criteria relating to the operation of uranium mills, and the disposition of tailings or waste produced by the extraction from ores processed primarily for their source material content, were not addressed by Buckingham.

The commission then directed staff to provide a "notation vote paper" evaluating the advantages and disadvantages of different options for the merging technology for remediation of mine waste.

Etsitty said Disa's remediation project has USEPA approval and hopes that "the federal government, primarily the Nuclear Regulatory Commission, approves it as well."

Etsitty was asked why this remediation technology was not presented as an option for the Quivira Mine during the public hearing in Gallup last month.

"That is a good question," he said. "There have been briefings that we have had with USEPA about this technology. We are hoping to see it incorporated into the analysis on the ongoing work."

Kenyon Larsen, physical scientist, remedial project manager with USEPA, Region 9, could not be reached for comment Friday.