



TO: Interested Parties

FROM: Tim Peterson, Cultural Landscapes Director, Grand Canyon Trust

RE: New report, *The Business of Radioactive Waste*, detailing how the White Mesa uranium mill, a mile from Bears Ears National Monument, became America's cheapest radioactive waste dump.

DATE: March 15, 2022

Today the Grand Canyon Trust is releasing a research report detailing radioactive wastes approved or considered for shipment to southeastern Utah's White Mesa Mill since the early 1990s.

The White Mesa Mill is the U.S.'s last functioning uranium mill. It neighbors the **Ute Mountain Ute Tribe's White Mesa community** and sits **one mile from the newly restored Bears Ears National Monument**. The mill has transformed its business model to operate as a waste-disposal service, earning millions in fees to process and discard other industrial and military facilities' radioactive wastes. **Over 700 million pounds** of these wastes have been buried in the mill's waste pits.

The mill's owner runs these radioactive wastes through the mill to extract small amounts of uranium, a practice it calls "alternate feed" milling. According to federal and state regulators, that changes the wastes' legal classification so that the leftovers—often more than 99% of what arrived at the mill—may be buried with the mill's uranium-milling wastes. Via this radioactive Midas touch, the mill has turned into a commercial landfill for contaminated wastes, placing Utah's clean air, water, environment, and people at risk and perpetuating environmental injustices in the Bears Ears Cultural Landscape.

Key takeaways from the report:

- **More than 15 different radioactive waste streams have been approved for shipment to the mill from contaminated sites across the United States and as far away as Canada, Europe, and Japan.** In many cases, local communities have worked hard to get these wastes removed from their neighborhoods due to high rates of cancer and other public health and environmental concerns. Waste streams approved for shipment to the White Mesa Mill include:
 - 3 Superfund¹ sites
 - 8 FUSRAP² sites
 - Areas contaminated by the Manhattan Project
 - Waste generated by industrial facilities in the nuclear-fuel cycle and mining sectors, as well as wastes from fertilizer, metals, and military-weapons manufacturing
 - Wastes containing not only uranium and thorium but also dangerous heavy metals including arsenic, barium, beryllium, radium, cadmium, chromium, lead, and mercury
 - Hazardous wastes legally reclassified as "alternate feed"

¹ "Superfund" is the informal name for the program established by the Comprehensive Environmental Response, Compensation, and Liability Act in 1980. Administered by the Environmental Protection Agency, the program investigates and cleans up sites contaminated by hazardous substances.

² The Formerly Utilized Sites Remedial Action Program is a U.S. Army Corps of Engineers program tasked with cleaning up sites contaminated by the nation's early atomic energy program.

- **It's cheaper for polluters to send their waste to the mill than to a licensed low-level radioactive waste dump.** The cost of shipping waste to the White Mesa Mill for processing and disposal can be half what it costs to send it to a low-level radioactive-waste disposal facility. "Alternate feed" milling and disposal is big business, earning the mill \$5-\$15 million per year. If not for alternate-feed processing, the mill's own CEO has stated that the mill probably would be closed and cleaned up.
- **The mill's radioactive waste-disposal business places the burden of radioactive contamination on a tribal community and endangers the Bears Ears Cultural Landscape.**

- The Ute Mountain Ute Tribe strongly opposes radioactive waste shipments to the nearby White Mesa Mill.
- Numerous Basketmaker and Ancestral Puebloan cultural sites on White Mesa including pit houses, kivas, and burial sites, were disturbed when the mill and its waste ponds were built. The mill has plans to dig even more waste ponds, which could place additional cultural sites at risk.
- Radioactive wastes that have contaminated the lands of the Cherokee Nation and the Spokane Tribe of Indians, and lands neighboring the Muscogee (Creek) Nation and former Mississauga First Nation lands in Canada have all been shipped to the mill. The mill's owner hopes to import even more radioactive material from the nearby Navajo Nation.



- **The White Mesa Mill pollutes air, land, and water, and puts public health at risk.** In December 2021, the EPA barred the mill from accepting Superfund site waste citing an "egregious" violation. The agency estimated improperly exposed waste was emitting ten times more radon than nearby covered waste.
 - The mill's oldest waste ponds are lined with a single layer of plastic and were designed to last only 15-20 years. Still in use over 40 years later, at least one leak reported in these liners required significant repairs. Newer ponds have been fitted with double liners and leak-detection systems; those systems have detected leaks through the top liners, indicating that older ponds with single liners may be leaking.
 - Plumes of contaminants including nitrate and chloroform are spreading in a shallow groundwater aquifer beneath the mill, and local springs important to Ute Mountain Ute tribal members show rising acidity. This contamination could eventually migrate down

to the deeper Navajo Aquifer, southeastern Utah and northern Arizona's primary source of drinking water.

- The mill and its waste pits emit radioactive and toxic air pollutants that can travel off-site, including radon, sulfur dioxide, and nitrogen oxide. The mill owner has reported average radon emissions from mill wastes that exceed the numeric limit established under the Clean Air Act to protect human health.

- **If the White Mesa Mill wants to function like a radioactive waste-disposal business, it should be regulated like one.** In nearly all cases, the alternate feed wastes shipped to the mill cannot lawfully be unloaded directly into the mill's waste pits without first being processed to remove minute amounts of uranium. It is only because the mill can dispose of the remaining radioactive wastes that it can demand payment to process alternate feeds, and that means it is able to earn revenues in the radioactive waste-disposal market without complying with waste-disposal laws. If the mill wants to compete in the waste-disposal market, rather than the market for making nuclear fuel, it should have to comply with the laws governing commercial radioactive-waste disposal.
 - In order to charge fees to dispose of third parties' radioactive wastes, the mill should first have to obtain the licenses and permits a commercial waste-disposal provider would be required to obtain for the wastes in question.
 - Most likely, this would require the mill to be permitted as a low-level radioactive waste disposal facility, and it could subject the mill to permitting requirements for managing hazardous wastes.