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**Waste Isolation in Delaware Basin Salt-
Current Solutions and Future Applications**

Abstract

Since March 26, 1999, the Waste Isolation Pilot Plant (WIPP) is disposing of radioactively contaminated defense waste deep in Salado Formation salt east of Carlsbad, NM. This waste comes from the research for, and the production of, the United States' nuclear arsenal as well as from the cleanup and decommissioning of sites engaged in these activities. Independent scientists and engineers have judged the thick impermeable evaporites of the Delaware Basin to be an excellent confinement system for permanently isolating this legacy of the Cold War.

Other environmental cleanup activities may profit from the example of the WIPP and of foreign deep geologic repositories. For three decades, Germany has placed chemically hazardous wastes into potash and salt mines. The Delaware Basin is large, and its thick evaporite section could easily accommodate additional repositories. More than seven decades of potash mining and two decades of WIPP research have generated a solid body of knowledge on the Salado salt. The potash mines east of Carlsbad are leaving behind large networks of underground openings. Rather than letting this readily available subterranean real estate go to waste, we can use it to isolate much of our ecotoxic waste. Better than (only temporary) surface and near-surface disposal, underground isolation in impermeable rocks, e.g., salt, is a truly permanent solution to our hazardous waste problem.