Clay Mound in Lewiston Entombs Deadly Reminders of 1945 A-Bomb

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Half a world away from Ground Zero, grass grows on the remnants of history. At H-hour plus 42 years, the last of a project that changed the world lies walled within thick sloping banks of Niagara County clay.

A campground beckons from across the road. Rural lands stretch away through the Lewiston countryside. A mile away, the Lewiston-Porter Central School campus provides a peaceful landmark.

Below ground, radioactive wastes just are beginning their 150,000-year decay.

At 1397 Pletcher Road, the last of the Manhattan Project — the supersecret, supersensitive atomic bomb research project that went public when the heart of Hiroshima was obliterated just 42 years ago today — has been laid to an uneasy rest.

At the Niagara Falls Storage Site, U.S. Energy Department contractors are finishing the containment job that walls away 16,000 tons of radioactive soils that had been trucked to the site more than 40 years ago when it was known as the Lake Ontario Ordnance Works.

Only the finishing touches remain on a locally controversial project that involved pumping water into the wastes, then flushing the resulting slurry into a landfill. In one of the largest radioactive waste disposal projects ever undertaken by the government, 225,000 cubic yards of waste were pumped into a huge clay vault — there to await eternity.

"We're getting ready to leave here. We're demobilizing the construction," said William E. Hevrdeys, Niagara Falls Storage Site director for Bechtel National, the Energy Department's contractor on the job.

"There are a few isolated hot spots," said Joel A. Arenson, project coordinator. "But all the contaminated soil has been removed.

"Essentially the job is complete. The containment is closed."

Tucked in a clay vault, the radioactive soil holds residues of the process used to extract enough uranium isotopes to bring Japan to its knees. The bombs that detonated over Hiroshima at 8:15 a.m. Aug. 6, 1945, and over Nagasaki three days later left tons of contaminated ore-bearing soil here in the United States.

The residues were trucked to the sprawling Lake Ontario Ordnance Works and dumped in an open field or dropped into a former water tower, and almost forgotten.

Community fears over the migration of the soils and radon gas emissions from the tower triggered action in the 1970s and 1980s, but the wastes weren't hauled away from Niagara County — despite protests that, with the West Valley Demonstration Project, eight former Manhattan Engineer District and Atomic Energy Commission sites, and the Northeast's only two licensed hazardous waste disposal landfills, Western New York has borne enough of the waste-management burden.

Instead, the federal government last year decided to bury the wastes "in perpetuity" at the Lewiston site.

"The release of radioactive radon gas through the thick earthen cover is estimated to be about the same as that which naturally escapes from the soils in the area because of the natural radioactivity in all soils," Energy Department scientists noted in their environmental-impact statement.

Associated Press

Terry Schubert, left, and Michael Lewandowski, technicians for Oak Ridge Associated University, check the Niagara Falls Storage Site for radiation.

In fact, they noted, someone living near the 191-acre site would receive an increase in radiation of less than .001 millirems a year — making it more hazardous to move to nearby Buffalo, where the added altitude on the high side of the Lewiston Escarpment would mean an increase of 2 millirems of cosmic radiation.

In deciding to keep the wastes in Lewiston, the government avoided the hazards of shipping the wastes to an arid site near Richland, Wash., a humid site near Oak Ridge, Tenn., or the Ocean Waste Disposal Site in the Atlantic.

The last of the Manhattan Project rests in a 10-acre tomb of impervious Niagara County clay, a clay so good for landfill covers that it brings premium prices. The tomb is designed to last 1,000 years.

Government experts say that for erosion to expose the radioactive soil could take anywhere from several hundred to 2 million years, even without the "perpetual care" that has been mandated.

Beneath a 4½-foot cap of clay, ringed by sloping clay walls 15 to 55 feet thick, lie reminders of the world's first atomic bombs — wastes such as radium-226, which takes 1,600 years to lose half its radioactivity, and thorium-230, which takes more than 150,000 years to decay.

Under the clay cap are contaminated soils, more than 15 feet deep — more than 94 percent of the wastes, but less than one percent of the radioactivity. Beneath the soils, in a reinforced concrete structure, are the deadliest wastes — a much smaller package of radioactive residues from the processing of the Manhattan Project's uranium.

The bottom of the vault is another 10 feet of native clay, a layer that designers expect will prevent any contaminated ground water from leaking from the site for the next millennium.

The vault took five years to finish, at a cost of $40 million.

The legacy of mankind's entry into the Atomic Age is likely to last far longer — from now until the edge of forever.

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