

## Will waste be left underground at West Valley?

By **RICK MILLER**

County Reporter

WEST VALLEY — For decades, the West Valley Citizens Task Force, environmental groups and area county and local governments have pressed for a full cleanup at the **West Valley Demonstration Project**.

The Seneca Nation has also called for a full cleanup at **West Valley**.

The 200-acre **WVDP** in the town of Ashford was the site of the nation's only commercial reprocessing plant for spent nuclear fuel, which operated from 1966 to 1972.

It was many years after the site was abandoned by Nuclear Fuel Services that the **West Valley Demonstration Project Act of 1980** was approved by Congress and signed into law by President Jimmy Carter.

Many milestones have been met, such as solidifying 600,000 gallons of radioactive liquid waste and preparing the main plant process building for deconstruction, which is ongoing. That is expected to take up to 30 months.

But what of underground radioactive hazards — two very large steel tanks with radioactive residue inside and the New York State and Nuclear Regulatory Commission (NRD) Disposal Areas that sit on a plateau above a waterway that empties into Cattaraugus Creek, which in turn flows to Lake Erie?

The Citizens Task Force, which serves as a watchdog to the U.S. Department of Energy and **New York State Energy Research and Development Authority**, has insisted from the beginning that the plateau above Buttermilk Creek is no place for the long-term storage of highly-radioactive waste.

In 2010, it was determined to use phased decision-making to address the **WVDP** cleanup. Phase 1 included the solidification of the radioactive liquid waste into 275 steel containers, each 10 feet high, which are now stored on the site in more than 50 concrete casks. It also includes the demolition of the main plant process building to ground level, as well as intercepting an underground strontium-90 plume coming from the building.

Phase 1B probably won't start until 2025 or 2026. That will involve removing the parts of the main plant process building below ground. Those plans are underway.

Phase 2 will be what comes after that. It can range from complete removal of all traces of the facilities to walking away and doing nothing — which is considered unlikely.

### LEAVE TANKS IN PLACE?

What has been emerging over the past several meetings of the Citizens Task Force have been comments from state and federal officials regarding the possibility of leaving the steel tanks in place and excavating only parts of the unlined underground trenches filled with everything from medical waste to radioactive filters from the plant and a damaged fuel cell assembly.

Longtime Citizens Task Force member Joe Pati said at Wednesday night's meeting that it appeared the tanks presented less of a danger than the burial areas, which are covered with special rubber membranes, but sit on a plateau and are surrounded by creeks.

Department of Energy Site Director Bryan Bower indicated earlier that some of the radioactive material remaining inside the 600,000-gallon tanks, like cesium and strontium 90, had a half-life of 28-30 years. The material in one tank has been dried, while the other one still contains moisture.

Pati said Wednesday the half-life might convince him to allow the tanks to remain while focusing on excavating the burial sites.

The big issue at the site, said **NYSERDA director Paul Bembia**, is erosion. The task force is expected to hear more about erosion modeling next month from Neptune Inc., which DOE hired to help determine what the site will look like in the future. **NYSERDA** would also like the tanks removed and the burial grounds excavated.

**NYSERDA** and DOE officials have discussed using engineered barriers to protect the burial grounds and other facilities in the future. Also discussed as an option was excavating only parts of the burial grounds where there were high levels of radioactive material.

## WEST VALLEY WATCHDOG

Diane D'Arrigo is a Western New York native who has been following the **West Valley** nuclear cleanup since the 1980s.

She now works for the Nuclear Information and Resource Center as Radioactive Waste Project director but serves as a watchdog for **West Valley** and several other nuclear cleanup sites across the country. The group has offices in Takoma Park, Md.

D'Arrigo said DOE doesn't feel the site will erode for up to 300 years, at which time many of the radionuclides in the trenches and tanks would no longer be dangerous.

"There's 14 pounds of plutonium in the burial grounds," D'Arrigo told the Times Herald Friday.

It's not clear how crews could excavate material from one part of a trench and leave adjacent material, she said. While strontium 90 and cesium have relatively low half-lives of 28 and 30, respectively, some of the radionuclides will be dangerous for millions of years.

"What they are talking about today is going in and take the long-lasting stuff out — plutonium and other long-lasting radionuclides," D'Arrigo said. The DOE, she continued, would like to keep as much of the material in the ground as possible. "It's likely many of these containers are not intact."

She said there were thousands of curies of radioactivity in the burial grounds.

The trenches of the burial sites filled with water in 1975. Water was subsequently pumped out and treated, a cover was placed over each of the burial areas and drainage structures were built to contain groundwater and keep it from getting back into the trenches.

Bower also told the task force that a probabilistic performance assessment of the site geography will be available online for the public to view.

Meanwhile, Kelly Wooley, deputy general manager for CHBWW, the contractor involved in the cleanup, told task force members Wednesday that crews were "making fairly good progress" on the deconstruction of the main plant process building.

While 98% of the hazardous and radioactive material was removed from the building over the past two decades, the dust is kept down using special water nozzles. The water is collected and treated before being released into lagoons.

There are also real-time monitoring devices that will pick up minute levels of radioactivity. If that occurs, work stops and safety officers determine what caused the increase. There are additional monitors on site and at the site boundary and offsite.

D'Arrigo is among those seeking real-time offsite monitoring information for the public during the demolition of the main plant process building and an electronic library where the public can view the studies commissioner by the DOE.

"I'm glad they are cleaning it up," D'Arrigo said. "But as they demolish the building I want to be sure they are not spreading (contamination) around the site."

## WVDP teams recognized by Green Electronics Council

WEST VALLEY — Teams at the **West Valley Demonstration Project** have been recognized for their recent clean environmental and energy-saving efforts with a national award.

CH2M HILL BWXT West Valley (CHBWV), the prime contractor to the U.S. Department of Energy at the **West Valley Demonstration Project**, received a Two-Star Award as part of the Green Electronics Council's 2022 Electronic Product Environmental Assessment Tool Purchaser Awards for excellence in the procurement of sustainable electronics.

According to the Green Electronics Council, the electronics purchased by CHBWV in 2021 will result in several environmental and energy-saving improvements over their lifetime. These include:

- A reduction of 9,538 kilograms of CO2 equivalents – taking two cars off the road for a year.
- A savings of 35,366 kWh of electricity – annual electric consumption for 3 households.
- A savings of 18,821 gallons of water.
- \$1,730 in cost savings.

"This is a significant contribution to the Administration's and the Department's initiatives to promote green information technology," said William I. White, U.S. Department of Energy Office of Environmental Management Senior Advisor, in a letter to CHBWV President John Rendall.

The 2022 EPEAT Purchaser Awards program is a voluntary program and demonstrates a commitment to excellence, reflecting well on the Department, EM, CHBWV and **WVDP**.

"Participating in this program is part of our commitment to be good stewards of the environment," Rendall added. "It's the right thing to do and helps save money for taxpayers and the government while protecting the environment."