

## West Valley contamination concerns

*Experts and activists contend plans to demolish the most radioactive building don't provide enough safeguards. A similar project in Washington encountered problems.*

By [Phil Gambini](#)



<https://www.youtube.com/watch?v=bKsW8W1h-z8>

Contractors are in the homestretch of clearing the **West Valley Demonstration Project** of buildings.

Fifty-one of 55 structures have been [taken down \[https://www.gao.gov/assets/gao-21-115.pdf\]](https://www.gao.gov/assets/gao-21-115.pdf), and the [most contaminated \[http://www.chbwv.com/Facility-Deactivation/MPPB-Demolition.pdf\]](http://www.chbwv.com/Facility-Deactivation/MPPB-Demolition.pdf) of them all — the Main Plant Processing Building — is scheduled for demolition this fall.

How hot are its five stories of reinforced concrete? A trio of [activists said \[https://buffalonews.com/opinion/another-voice-demolition-at-west-valley-nuclear-site-must-be-monitored/article\\_33ada9c6-406d-11eb-8103-cf6083e0c0b1.html\]](https://buffalonews.com/opinion/another-voice-demolition-at-west-valley-nuclear-site-must-be-monitored/article_33ada9c6-406d-11eb-8103-cf6083e0c0b1.html) it “could be one of the most radioactive buildings in the country.”

The demolition might be welcome news, but [the manner \[http://www.chbwv.com/Public\\_Meetings/Quarterly\\_Public\\_Meeting/022421/DD-Process.pdf\]](http://www.chbwv.com/Public_Meetings/Quarterly_Public_Meeting/022421/DD-Process.pdf) in which contractors plan to bring the building down is causing concern, even alarm, in some quarters.

Plans call for an open-air demolition of the building. Some experts and local activists want it “tented.” That is, enclosed by a temporary cover to reduce the amount of radioactive dust and debris that can escape into the environment.

“You’re dealing with a significant quantity of dangerous material which is dangerous in microscopic quantities,” said [Robert Alvarez](https://ips-dc.org/ips-authors/robert-alvarez/), a senior advisor to the [Department of Energy](https://www.energy.gov/) in 1990s, told Investigative Post

“Until we have reasons to trust that nothing can get out, we need to take all the steps that are necessary to prevent the irreversible contamination of our region,” said [Diane D’Arrigo](https://www.nirs.org/staff/), an activist and radioactive waste specialist at the Washington, D.C.-based [Nuclear Information and Resource Service](https://www.nirs.org/).

Experts and activists note that an open-air demolition of a facility in Hanford, Washington, presenting similar industrial and radiological hazards resulted in [contamination problems](https://www.energy.gov/articles/department-energy-cites-ch2m-hill-plateau-remediation-company-nuclear-safety-and-radiation). Forty-two workers were exposed to radiation and plutonium was detected up to 10 miles from the demolition site. The federal government withheld \$2.8 million from the contractor as a penalty.

“I’m not aware of any other Department of Energy incident where that many people are exposed or known to be exposed,” said [Dr. Ed Lyman](https://www.ucsusa.org/about/people/edwin-lyman), director of nuclear power safety for the [Union of Concerned Scientists](https://www.ucsusa.org/).

One of the companies under contract to do the West Valley work is affiliated with a firm that did some of the Hanford demolition work. The Hanford contractor was CH2M Hill Plateau Remediation Co. The work in **West Valley** is being performed by [CH2M Hill BWXT West Valley LLC](http://www.chbwv.com/).

A spokesman for the West Valley contractor, [Joseph Pillitere](https://www.linkedin.com/in/joseph-pillitere-68a596ab), refused several interview requests, as did the contractor’s parent companies. Pillitere said in an emailed statement that the **West Valley** plan “incorporates best practices and lessons learned” from prior jobs. The undertaking will be “safe and protective of the surrounding community and environment.”

This story is based in part on data maintained by [Good Jobs First](https://www.goodjobsfirst.org/), a national subsidy watchdog organization, on its [Violation Tracker](https://www.goodjobsfirst.org/violation-tracker). Investigative Post also reviewed regulatory and court documents and data that tracked incidents of concern that have occurred during the last 10 years of the **West Valley** cleanup. Interviews were conducted with 10 activists, scientists and industry analysts.

Alvarez said dated plants like **West Valley** demand more robust safety controls than what’s planned.

“This is not a cotton-candy factory,” he said. “You’re dealing with a high-hazard, nuclear facility that is unique.”

## Companies doing the work

The **West Valley** plant was [built in 1963](https://www.gao.gov/assets/gao-21-115.pdf) as part of the federal government’s attempt to spark a commercial nuclear industry. New York officials said it would [transform](https://www.nytimes.com/1977/04/10/archives/too-hot-to-handle-nuclear.html) the state economy.

Operations began in 1966 under [Nuclear Fuel Services](https://www.investigativepost.org/2021/03/01/cancer-plagues-west-valley-nuke-workers/). The facility closed in 1972 to expand its capacity and improve safety controls mandated by new government regulations. In 1977, the company decided not to make the necessary investment and pulled out, leaving behind 600,000 gallons of high-level radioactive liquid and 2 million cubic-feet of solid waste.

Federal and state governments have been overseeing a cleanup of the site since 1980. Congress split the [cleanup obligations](https://www.wv.doe.gov/Documents/WVDP_Act.pdf) between the Department of Energy, which pays 90

percent of the bill, and the [New York State Energy and Research Development Authority \[https://www.nyserda.ny.gov/Researchers-and-Policymakers/West-Valley\]](https://www.nyserda.ny.gov/Researchers-and-Policymakers/West-Valley), which covers the balance.

The price tag so far is \$3.1 billion, according to a Government Accountability Office [report \[https://www.gao.gov/products/gao-21-115\]](https://www.gao.gov/products/gao-21-115) published in January. Work is expected to continue into the 2040s. Costs could reach \$10.6 billion, according to government projections.

The business partnership CH2MHILL BWXT West Valley LLC has been decommissioning buildings since 2011. That work will pay [\\$836 million through 2023 \[https://www.energy.gov/em/articles/doe-extends-west-valley-demonstration-project-cleanup-contract-extension-will-enable\]](https://www.energy.gov/em/articles/doe-extends-west-valley-demonstration-project-cleanup-contract-extension-will-enable). Over the last decade, crews removed 51 of 55 buildings and approximately 1.3 million cubic feet of “low-level waste,” the GAO report said.

Karen Wiemelt, the North American nuclear senior vice president for Jacobs Engineering Group — which [purchased \[https://www.wsj.com/articles/jacobs-engineering-nears-deal-to-buy-ch2m-hill-1501646460\]](https://www.wsj.com/articles/jacobs-engineering-nears-deal-to-buy-ch2m-hill-1501646460) CH2M Hill in 2017 — praised the company’s work so far, describing it as “impressive and impactful” in [a statement to the press \[https://invest.jacobs.com/investors/Press-Release-Details/2020/Jacobs-Led-LLC-at-West-Valley-Demonstration-Project-Receives-Contract-Extension-from-DOE/default.aspx\]](https://invest.jacobs.com/investors/Press-Release-Details/2020/Jacobs-Led-LLC-at-West-Valley-Demonstration-Project-Receives-Contract-Extension-from-DOE/default.aspx).

“I’m confident in our ability to continue to perform and exceed expectations,” she said.

CH2M Hill Constructors Inc. holds [65 percent \[https://www.emcbc.doe.gov/Content/Office/WVDP/Section%20H\\_RedactedAConformed%20Contract%20DE-EM0001529%20Mod%20267%2003312021.pdf\]](https://www.emcbc.doe.gov/Content/Office/WVDP/Section%20H_RedactedAConformed%20Contract%20DE-EM0001529%20Mod%20267%2003312021.pdf) of the partnership at [West Valley](#). BWX Technologies holds a 20 percent interest. Environmental Chemical Corp. holds a 15 percent share.

BWX Technologies is [also a partner \[https://www.sec.gov/ix?doc=/Archives/edgar/data/1486957/000148695721000006/bwxt-20201231.htm\]](https://www.sec.gov/ix?doc=/Archives/edgar/data/1486957/000148695721000006/bwxt-20201231.htm) with CH2M affiliates in South Carolina, as part of the Savannah River Remediation LLC, and in Kentucky, as part of the Four Rivers Nuclear Partnership LLC.

## Contamination issues at Hanford

Work in Hanford involved the demolition of more than 60 buildings that had handled radioactive materials dating to World War II. CH2M Hill Plateau Remediation Co. was hired to demolish a series of buildings used to process plutonium. The work began five years ago.

The Department of Energy conducted an investigation that found the contractor had violated safety regulations in June and December 2017. The shortcomings were considered “severity level ii” violations, which the government defines as “a significant lack of attention or carelessness toward responsibilities of DOE contractors for the protection of public or worker safety.”

“I find that particularly troubling,” said Lyman of the Union of Concerned Scientists.

“The root causes [of the June incident] were identified and corrective actions were put into place,” he said. “Yet, when a subsequent contamination event occurred in December that year, a number of the causes of that were the same as in June, which means that the corrective actions applied were either not implemented adequately, or not at all.”

Company officials conceded problems with the work in the immediate wake of the December event, prior to the [letter of violation](#)

<https://www.energy.gov/sites/default/files/2019/04/f61/Preliminary%20Notice%20of%20Violation%2C%20CH2M%20Hill%20Plateau%20Remediation%20Company.pdf>] from the DOE arrived.

“Mistakes were made at several levels that created a situation that is unacceptable for worker safety, protection of the environment, and service to our customer,” Ty Blackford, president of CH2M Hill Plateau Remediation Company, told the Seattle Times.

Federal and state regulators imposed a [stop-work \[https://www.hanford.gov/files.cfm/EPA-Ecology Letter Jan. 9 to DOE-RL - HFFACO Article XXXII.pdf\]](https://www.hanford.gov/files.cfm/EPA-Ecology%20Letter%20Jan.%209%20to%20DOE-RL%20-%20HFFACO%20Article%20XXXII.pdf) order for nine months that delayed completion of the job until February 2020.

Though federal officials said in the letter that the event was “of high safety significance,” the worker exposures were within acceptable federal limits. The offsite radioactive contamination discovered was not deemed a public health threat.

But there is no acceptable amount of exposure to plutonium, said [Tom Carpenter \[https://www.manhattanprojectvoices.org/oral-histories/tom-carpenters-interview\]](https://www.manhattanprojectvoices.org/oral-histories/tom-carpenters-interview), executive director of [Hanford Challenge \[https://www.hanfordchallenge.org/\]](https://www.hanfordchallenge.org/), a nonprofit group that monitored the decommissioning work in Washington state.

“To attempt to say, ‘Well, it’s a really small amount,’ is absurd,” he said. “It’s not what the medical community would accept — or even the radiation protection community would accept — as a valid answer.”

A [press release \[https://www.energy.gov/em/articles/west-valley-gains-insights-hanford-prepare-demolition-project\]](https://www.energy.gov/em/articles/west-valley-gains-insights-hanford-prepare-demolition-project) issued by the Department of Energy four months after the letter said new corrective actions had been implemented. Work resumed without further DOE violations.

The release quotes Tommy Fontaine, an industrial safety and radiation manager with CH2M Hill BWXT West Valley, saying the information exchange was for the “benefit of our employees, the public, and the environment.”

## West Valley concerns

To date, regulators have not cited contractors at **West Valley** for any violations, according to Good Jobs First. But the work hasn’t been problem-free.

The federal government’s Occurrence Reporting and Processing System — a log of incidents that “could adversely affect the health and safety” of the public and environment, among other matters — lists 46 incidents over the last decade, some of which involved radioactive contamination issues.

While there are [similarities](#) to the Hanford demolition, the **West Valley** plant presents distinct challenges, Alvarez said. Among them: the facility has a far smaller “buffer zone.” The Hanford plant is part of a [586-square-mile complex \[https://www.hanford.gov/page.cfm/ProjectsFacilities#HM\]](https://www.hanford.gov/page.cfm/ProjectsFacilities#HM), vs. [5 square miles \[https://www.energy.gov/sites/prod/files/EIS-0337-FEIS-Summary-2003.pdf\]](https://www.energy.gov/sites/prod/files/EIS-0337-FEIS-Summary-2003.pdf) at **West Valley**.

The demolition will produce dust, which will be sprayed with water to keep it from drifting. Larger debris will be piled and sprayed with an adhesive compound designed to stop radioactive dust from spreading. [A water management system \[http://www.chbvw.com/Public\\_Meetings/Citizens\\_Task\\_Force/042821/Update.pdf\]](http://www.chbvw.com/Public_Meetings/Citizens_Task_Force/042821/Update.pdf) is being built and installed to manage the contaminated liquid.

May 18, 2021 video added May 20, 2021

A tributary to Cattaraugus Creek runs near the boundary of the West Valley site before winding through Seneca Nation territory and emptying into Lake Erie. Within 35 miles of the demolition site are a number of population centers, including Ellicottville, Salamanca, Gowanda and Buffalo.

Radioactive residue from **West Valley** operations in the 1970s has been detected as far away as Lake Ontario, according to research [published in 1988 \[https://link.springer.com/article/10.1007/BF00226483\]](https://link.springer.com/article/10.1007/BF00226483).

In Hanford, offsite [monitoring \[https://web.archive.org/web/20201121060151/https://www.seattletimes.com/seattle-news/environment/wa-state-monitors-found-radioactive-contamination-from-troubled-hanford-demolition-project/\]](https://web.archive.org/web/20201121060151/https://www.seattletimes.com/seattle-news/environment/wa-state-monitors-found-radioactive-contamination-from-troubled-hanford-demolition-project/) by the state revealed how far contamination from releases during demolition had spread. Current plans for the **West Valley** demolition call for on-site monitoring of radiation levels, but no real time monitoring off site.

That concerns D'Arrigo.

“There’s no continuous real time air monitoring, there’s no meaningful air monitoring that’s being done that would enable the public to know what’s being dispersed from that site.”