

## Nuke Waste Site Calamity Reflects Industrial Crisis

**BEWARE.** *This is the type of pseudo-news, pseudo-respectable article that the public is likely to see. It is full of half-truths and downright lies attributed to Megan Tady, Susan Gold, Gerry Pollett, Arjun Makhijani, and their respective activist organizations. Each is a paid activist pretending to be respectable. For example, Arjun Makhijani supposedly heads the Institute for Energy and Environmental Research, which is simply himself and his wife. They are all charlatans of the first order.*

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Radioactive leaks, faulty construction and doubts over untested technology plague Department of Energy contractor Bechtel's cleanup of an atomic bomb waste site.

May 9 - Residents of the Pacific Northwest are alarmed that about one million gallons of nuclear waste have seeped from tanks at the Hanford Nuclear Reservation in eastern Washington State to form an underground plume that is inching toward the Columbia River. But the environmental destruction is only the beginning of their worries.

They are most concerned with the government and plant contractors' continued malfeasance while building a waste-treatment facility at Hanford designed to clean up the leaking mess that has left the region progressively vulnerable to what's considered one of the most contaminated places in the Western Hemisphere.

And while residents of the area fight the Department of Energy's (DOE) plans to make the site a permanent waste dump, several critics of the plant speculate over whether the waste treatment process being implemented there is even a viable solution.

"I'm really disturbed by the ineptness, corruption and negligence on the part of government and contractors," Paige Knight, president of the public-advocacy group Hanford Watch, told The NewStandard. Knight lives "downriver" in Portland, Oregon.

Hanford was originally a plutonium production site for nuclear weapons from 1943 to the 1980s, and the plant supplied the materials for the atomic bomb dropped on Nagasaki, Japan, in 1945.

The DOE, which is responsible for cleaning up nuclear weapons sites across the country, signed a contract with multinational construction contractor Bechtel to build a waste-treatment facility at the Hanford site in 2000. The facility is supposed to clean up the 55 million gallons of radioactive waste and dispose of it in an off-site geological depository.

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While Bechtel and the DOE continue to assure the public of strict quality and safety controls at the treatment plant, discoveries and allegations of corruption, quality violations, worker intimidation, lack of managerial oversight and construction shortcuts have repeatedly surfaced.

"The DOE has a culture of putting the nuclear business over the environment, and I don't think they can overcome it," said Arjun Makhijani, president of the Institute for Energy and Environmental Research, a nonprofit organization that works to demystify the nuclear industry. "Their heart isn't in it. This is a nuisance to them. They have restarted their weapons business and they're very eager to build new reactors. They think that making weapons is like cooking and the clean-up is like doing the dishes. It's much lower on the totem pole."

Nearly two-thirds of the country's nuclear-weapons waste is stored at Hanford, most of it in 177 underground tanks. One million gallons of the waste has already contaminated the groundwater and is threatening the Columbia River.

The site's nuclear-waste legacy prompted the state to scream for action, and in 1989, the DOE entered into an agreement with the Washington State to build a waste-treatment plant at Hanford to help dispose of the waste.

Some critics have doubts about the vitrification process altogether as a solution for nuclear waste.

The facility uses a process called vitrification, by which nuclear waste is converted into solid glass-waste logs. Under the provisions of the Nuclear Waste Policy Act of 1982, which requires the DOE to dispose of all high-level nuclear waste in deep geological repositories, the waste would be removed from Hanford after vitrification and taken to the controversial waste site planned at Yucca Mountain in Nevada.

"This is a first-of-a kind plant," said Robert Alvarez, a senior scholar at the Institute for Policy Studies who for six years served as a policy advisor for the DOE. "No one has attempted to process and stabilize the witches' brew of radioactive materials that are in these tanks."

In fact, some critics have doubts about the vitrification process altogether as a solution for nuclear waste.

"The material is a glass log when it starts out, but then they seal up these containers, and what eventually becomes of the glass - whether it fractures after it cools down, and whether it's further damaged when it's transported - is unknown," said Marvin Resnikoff, senior associate at the nuclear-waste consulting group Radioactive Waste Management Associates. "I would not be surprised if it's fractured into lots of pieces, which will make a long-term problem when they eventually ship it to Yucca Mountain."

Another, perhaps more serious problem, added Makhijani, is that the consistency of the waste in the tanks will make it difficult to process it into glass in the first place.

"The main problem is with the emptying of the tanks and processing the different types of goop in the tanks into a material that's suitable for making molten glass," he said. "You can't just dump anything into molten glass. Some stuff doesn't dissolve. The waste in the tank is very heterogenic - solid layers, peanut-butter-consistency layers, liquid layers, all chemically diverse and with different amounts of radioactivity."

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Untested technology aside, Makhijani and others maintain that the biggest factor affecting the clean-up of nuclear-weapons waste around the country is the lack of

accountability and enforceability on the part of the Energy Department. Unlike other government and private industrial facilities in the US, which are subjected to licensing and regulatory oversight by outside agencies, the DOE's nuclear facilities have no external regulation, as mandated by Atomic Energy Act of 1946.

"Until the DOE is divested from clean-up at the sites at Hanford, you're not going to see the difficult jobs done well," he said.

Critics of the DOE are advocating for independent oversight to ensure accountability, and many think bringing in the Nuclear Regulatory Commission (NRC) – the agency that regulates commercial nuclear power – is a solution.

"What's happening is that the DOE is so compromised that it cannot objectively regulate the safety of this plant," Alvarez said.

The NRC, however, has come under heavy fire from environmentalists as well for rubber-stamping industry projects, making their involvement questionable. Other critics think the DOE should be bypassed completely and that Washington State should take over the clean-up using federally guaranteed funds.

"The state has a real interest in seeing that the tanks are actually emptied and the water is disinfected," Makhijani said.

Six years after Bechtel began the project, the facility is only 25 percent complete and the original price tag has soared from \$4.3 billion to nearly \$10 billion.

Calling it the "poster child of all sweetheart deals," Gerry Pollett, director of Heart of America Northwest, a grassroots organization leading the clean-up efforts at Hanford, is disturbed by the way the DOE awards contracts to corporations with strong ties to the government.

"The contracts are written in such a way that only a handful of companies in the country are qualified to bid on them, rather than breaking them up into more meaningful bites that would allow for far greater competition and greater cost control," he said.

A few anonymous whistleblowers have written scathing letters about Bechtel's and the DOE's negligence at the facility, and other government agencies have issued warnings and criticized the plant, including the Government Accountability Office, the Nuclear Regulatory Commission and the Army Corps of Engineers.

"This is a culture of mismanagement that is based on undocumented blind faith [in] the contractor," Alvarez said. "This should not be the way we do business, especially given the fact that we're dealing with some of the most dangerous materials on the planet. They have delegated and abdicated a lot of responsibility to ensure public safety to a contractor that has no financial consequences for misdeeds."

Asked about regulatory mistakes on the part of the DOE, Erik Olds, a spokesperson for the Office of River Protection, a regional arm of the DOE that manages Hanford, said only that they were in the process of "improving the quality of our oversight."

But even the DOE itself admitted to some of Bechtel's errors.

"To be clear, Bechtel has made mistakes relative to quality and relative to some of the early estimates of this project," said Erik Olds, "We believe that Bechtel is now taking the appropriate steps to address nuclear quality issues within their organization."

The Government Accountability Project (GAP), a government watchdog, issued a report last week that exposes the blunders of the DOE and Bechtel.

In its' rush to complete the site, DOE forewent building a pilot project, which, according to Makhijani, is the typical first step for a venture of this scale. As a result, engineers overestimated the facility's ability to withstand an earthquake, causing considerable construction delays and increased costs; the plant is located within the seismic area of the Cascadia fault, which extends from Vancouver Island to northern California.

"It's like trying to do calculus without doing algebra," Makhijani said. "It's not sensible."

Other construction problems have also been uncovered, including Quality Assurance violations and faulty welds on some equipment. GAP's report determined that one key piece of equipment, called a Scrubber vessel, was knowingly installed with flaws as Bechtel "fast-tracked" construction to meet a \$15 million deadline incentive.

"They [DOE] wanted to get this plant built, and they had to show some progress," said Tom Carpenter, GAP's nuclear oversight program director. "The government wants it built. The state wants it and so do the residents of Washington. Everyone is interested in seeing this plant built, so there are some very important drivers out there."

The DOE, which is attempting similar undertakings at several other sites across the country, issued an "Accelerated Clean-Up Plan" in 2002 designed to process waste sites more quickly by cutting costs and speeding up construction.

As Bechtel cut corners and the DOE looked the other way, employees at the site began to hesitantly chirp on the whistle.

"The contractor could design and construct without regulatory burden and could collect hundreds of millions of dollars - and the DOE would look good for overseeing a successful project constructed ahead of schedule and under budget," wrote employees in an anonymous letter to a senior official at the Defense Nuclear Facilities Safety Board in 2004.

A 2005 internal audit by the DOE found that Bechtel had created a hostile working environment in which a "chilling" effect was used to quell the reports of safety concerns about the plant.

"We had a small number of individuals come forward and they said they were afraid to raise issues for fear of intimidation," John Britton, a spokesperson for Bechtel admitted to TNS. Britton said the company has an "internal employees concern program" designed to give an anonymous avenue for staff to voice concerns to management. "So we've beefed up that program," he said.

While some residents and advocacy groups are hounding the DOE to take responsibility for and fix the errors at the plant, others are turning their focus toward fighting a DOE plan to make Hanford a permanent dump for some of the waste now stored there.

Olds, of the DOE, would not comment on plans to make Hanford a permanent site, saying only, "We are absolutely committed to getting the waste out of the tanks, getting it treated through vitrification, and getting that waste safely disposed of."

One strategy behind the DOE's accelerated clean-up is to reclassify high-level nuclear waste as low-level waste. The change in language would allow the DOE to reduce the amount of hazardous material that needs to be vitrified and increase the amount that can be left in tanks. Although an Idaho court struck down a similar reclassification move, Congress trumped that ruling and allowed the DOE to downgrade nuclear-waste classifications in both Idaho and South Carolina.

Efforts to do the same at Hanford have failed so far as residents have mounted a fierce campaign.

As the opening of Yucca Mountain, the government's only plan for a geological repository, looks increasingly unlikely, reclassifying high-level waste would solve – at least on paper – some of the government's high-level-waste headaches.

Watchdogs fear that if waste is allowed to stay at Hanford, the site will eventually begin receiving waste from around the country.

The DOE is particularly interested in finding homes for nuclear waste as Bush administration plans call for increases in nuclear arms and nuclear power. Bush's Global Nuclear Energy Partnership (GNEP), which seeks to reprocess used fuel, would create a whole host of nuclear waste issues with which to contend. GNEP allows "supplier" nations like the US to provide nuclear energy components to "user" countries, who then return their waste to the US.

"The process of reprocessing creates even hotter contaminated waste, and we do not have a solution for dealing with it," said Susan Gordon, executive director of the Seattle regional Alliance for Nuclear Accountability, a network of organizations concerned about the legacy of nuclear arms proliferation. "We haven't cleaned-up the reprocessed mess from before, and it's the most difficult to deal with," she added.