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St. Louis is Burning

An underground landfill fire near tons of nuclear waste raises serious health and safety concerns – so why isn't the government doing more to help?

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By Steven Hsieh

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There's a fire burning in Bridgeton, Missouri. It's invisible to area residents, buried deep beneath the ground in a North St. Louis County landfill. But the smoldering waste is an unavoidable presence in town, giving off a putrid odor that clouds the air miles away – an overwhelming stench described by one area woman as "rotten eggs mixed with skunk and fertilizer." Residents report smelling it at K-12 school buses, a TGI Fridays and even the operating room of a local hospital. "It smells like dead bodies," observes another local.

On a Saturday morning in March, one mile south of the landfill, several Bridgeton residents have gathered at a small home in a blue-collar subdivision called Spanish Village. Concerned citizens Karen Nickel and Dawn Chapman are here to answer questions posed by four of their neighbors. "How will I ever sell my house?" "Am I going to end up with cancer 20 years down the road?" "Is there even a solution?"

In February, the landfill's owner, Republic Services, sent glossy fliers to residents within stink radius claiming the noxious odor posed no safety risk. But official reports say otherwise. Temperature probes reveal the fire has already surpassed normal heat levels. Reports from the Missouri Department of Health and Senior Services (DHSS) indicate dangerously high levels of benzene and hydrogen sulfide in the air. In March, Missouri's Department of Natural Resources (MDNR) – which has jurisdiction over Bridgeton Landfill – quietly posted an Internet notice cautioning citizens with chronic respiratory diseases to limit time outdoors. A month after Republic distributed its potentially misleading flier, the state attorney general sued the company on eight counts of environmental violations, including pollution and public nuisance. And this week, as part of a settlement set to be announced Tuesday, Republic sent another round of fliers offering to move local families to hotels during a period of increased odor related to remediation efforts.

Nickel and Chapman are stay-at-home moms; Chapman has three special-needs kids. Neither of them wants to spend her time worrying about a damn landfill fire. But until someone higher up the power chain intervenes, they have sworn to call municipal offices, file Sunshine requests and post notices to the community's Facebook group, no matter how unsettling the facts they uncover. Scariest of all: The Bridgeton landfill fire is burning close to at least 8,700 tons of nuclear weapons wastes.

"To have somebody call you at 11 P.M., and they're in tears, concerned for their family, that's heartbreaking," Chapman tells *Rolling Stone*. "We're doing this because we don't have a choice. If we don't come together as a community and fight, no one's going to do it for us."

America's Nuclear Nightmare

West Lake Landfill is an Environmental Protection Agency (EPA) Superfund site that's

home to some of the oldest radioactive wastes in the world. A six-foot chain-link fence surrounds the perimeter, plastered with bright yellow hazard signs that warn of the dangers within. On one corner stands a rusty gas pump. About 1,200 feet south of the radioactive EPA site, the fire at Bridgeton Landfill spreads out like hot barbeque coals. No one knows for sure what happens when an underground inferno meets a pool of atomic waste, but residents aren't eager to find out.

At a March 15th press conference, Peter Anderson – an economist who has studied landfills for over 20 years – raised the worst-case scenario of a "dirty bomb," meaning a non-detonated, mass release of floating radioactive particles in metro St. Louis. "Now, to be clear, a dirty bomb is not nuclear fission, it's not an atomic bomb, it's not a weapon of mass destruction," Anderson assured meeting attendants in Bridgeton's Machinists Union Hall. "But the dispersal of that radioactive material in air that could reach – depending upon weather conditions – as far as 10 miles from the site could make it impossible to have economic activity continue."

In a response offered to *Rolling Stone*, Republic Services says, "Mr. Anderson made his statement without any proof or evidence, and he ignored the fact that ongoing evaluation by MDNR, EPA and local authorities have confirmed that the increased heat at the Bridgeton Landfill has not impacted West Lake and does not pose a threat to the materials at West Lake." Republic Services also denies that it is dealing with a "fire" – the company prefers the euphemism "subsurface smoldering event." Under orders from the state, Republic is drilling holes to contain this "smoldering event." Republic estimates it's already spent over $20 million – about 0.25 percent of its 2012 revenues – on such mitigation efforts, "not because we have to, but because it is the right thing to do."

When Missouri Attorney General Chris Koster sued Republic Services on March 27th, outlining a host of alleged odor pollution and public health violations at Bridgeton Landfill, he described the risk of the fire contacting the nearby radwaste as a mere "remote hypothetical." But many residents are far from reassured.

The story of West Lake's radioactive waste goes back to April 1942, when a St. Louis company called Mallinckrodt Chemical Works began purifying tens of thousands of tons of uranium for the University of Chicago as part of the Manhattan Project. Mallinckrodt's workers did not receive adequate safety protections and had little knowledge of what they were dealing with – oversights that would lead to disproportionately high cancer death rates among workers, as documented in books, dissertations and journalistic accounts, including a groundbreaking seven-part series from the *St. Louis Post-Dispatch* in 1989. Over the next 25 years, the company's uranium processing also created huge amounts of radioactive waste, much of which was secretly

dumped at sites throughout the St. Louis metropolitan area, including West Lake.

Today, West Lake's radioactive waste – all 143,000 cubic yards of it – sits on the outskirts of a former quarry with practically none of the standard safety features found in most municipal landfills. No clay liner blocks toxic leachate – or "garbage juice" – from seeping into area groundwater. No cap keeps toxic gas from dispersing into the air. This unprotected waste sits on a floodplain 1.5 miles away from the Missouri River. Eight miles downstream is a drinking water reservoir that serves 300,000 St. Louisans. Worst of all: The materials dumped in this populous metropolitan area will continue to pose a hazard for hundreds of thousands of years.

The EPA's Region 7 is based in Lenexa, Kansas, about 250 miles west of St. Louis. The agency operates from a glass-paned office building that once housed the international headquarters of Applebee's. In an empty conference room on the ground floor, Dan Gravatt, the EPA manager tasked with handling West Lake, looks every bit the government scientist in his blue work shirt, khaki pants and thin-framed glasses.

In 2008, the EPA decided to cap the radiotoxic material dumped at West Lake and leave it there. Capping the site meant piling five feet of dirt and rocks on top and implementing long-term monitoring for contamination. Facing widespread public pressure, including a letter from St. Louis mayor Francis Slay, the EPA postponed its decision pending further studies.

Gravatt has a smooth, rehearsed response to almost any question about the West Lake landfill – a skill he put to use at a community meeting on January 17th, when more than 300 concerned citizens gathered to hear the results of those EPA studies. One person in attendance was Kay Drey, an 80-year-old civil rights and anti-nuclear activist who's been advocating for the removal of wastes from the St. Louis area for more than three decades. "I was very disappointed," Drey tells *RS*. "The evidence is clear. This is radioactively hot stuff and it shouldn't be in the floodplain by the Missouri river. And if they can't admit to that – well, it's incomprehensible."

Back at his office, Gravatt insists that West Lake's radioactive wastes only pose health risks for people who come in direct contact with the site, adding that the nuclear dump "doesn't pose any current exposure pathways to area residents as it stands now."

But Robert Criss, a geochemist at Washington University in St. Louis who has studied the issue closely, says the EPA is grossly underplaying a host of risks surrounding West Lake – flooding, earthquakes, liquefaction, groundwater leaching – that could pave the way for a public health crisis. That's not to mention the recent development of an underground fire nearby. Says Criss, "There is no geological site I can think of that is more absurd to place such waste."

Digging through old Nuclear Regulatory Commission studies, he recently stumbled upon what he describes as an error with major implications. For the last three decades, various government documents have referred to the waste at the landfill as "leached barium sulfate," a nearly insoluble compound generated from uranium processing. But Criss says that the NRC's own data shows the material dumped at West Lake contains far too little barium and sulfate to compose barium sulfate – by factors of 100 and 1000, respectively. "If I had this long to study something, I would be pretty embarrassed if this is what I came up with," says Criss. "It is inconceivable for these people to promote remedies when they don't even know what they're dealing with."

In a statement to *Rolling Stone*, the EPA disputed Criss' findings, but declined to offer further explanation, instead deferring to the Nuclear Regulatory Commission. Upon request for a chemical analysis proving the waste is barium sulfate, the NRC sent *RS* the same 1982 report that Criss disputes.

So what happens now? The EPA officially lists four potentially responsible parties for the West Lake Superfund site. One is the U.S. Department of Energy. A second is Cotter Corporation, a company whose contractors secretly dumped nuclear waste at West Lake in the Seventies, as uncovered soon after by the *St. Louis Post-Dispatch*. The others are Bridgeton Landfill LLC and Rock Road Industries LLC – both subsidiaries of Republic Services, which currently runs the landfill. Under Superfund law, these four parties must ultimately foot the bill for any remedial actions ordered by the EPA; at the same time, it is these same four parties that contract and pay for all EPA studies leading up to a decision. This might seem like a conflict of interest, but Gravatt insists it's all on the up and up: "We tell them what to do." It must be a coincidence, then, that the EPA's capping plan cost the potentially responsible parties only $41 million, compared to up to $415 million required to actually excavate the waste.

Missouri State Representative Keith English has another idea to fix the mess at West Lake. In February, English and 12 co-sponsors filed a resolution with the state assembly to transfer control of the site from the EPA to the Army Corps of Engineers' Formerly Utilized Sites

Remedial Actions Program (FUSRAP) – a proven success that has already cleared more than one million cubic yards of atomic waste from other sites in the St. Louis area, shipping the radioactive contaminants to safe disposal cells in Utah and Idaho. A nearly identical resolution filed by State Senator Maria Chappelle-Nadal in Missouri's other legislative body garnered three co-sponsors. "The educated people that deal with this type of waste can see that there's an issue with just putting a cap on top," says English.

Unfortunately, anything that passes through Missouri's statehouses would only represent a symbolic victory. Since West Lake remains under federal jurisdiction, only an act of Congress could transfer the site to the Army Corps. For this reason, many are looking to Missouri's U.S. Senate delegation – Democrat Claire McCaskill and Republican Roy Blunt – to lead on this issue. "I hope that our resolutions pass and get to Senator Blunt and Senator McCaskill's office," English says. "Because they've been sweeping it under the rug for the past several years."

The Missouri Coalition for the Environment, which has advocated for the removal of West Lake wastes for more than a decade, in part blames Missouri's ties to the nuclear energy industry for the senators' lack of action. Both McCaskill and Blunt, as well as Missouri Governor Jay Nixon, have pushed for bringing more nuclear reactors to the state. Any more attention to a hazardous radioactive dump might get in the way of that messaging. "They won't touch this with a 10-foot pole," says the Coalition's safe energy director, Ed Smith. "It doesn't fit their narrative of clean nuclear power and 'jobs, jobs, jobs.'"

Blunt has yet to make any public statement on the issue, and his office has not responded to requests for comment. McCaskill, meanwhile, supported the 2008 cap-and-leave plan for the West Lake radwaste; on March 12th of this year, she sent a response to several concerned citizens, assuring them, "I will continue to monitor these situations and ensure that any proposal put forward to address them provides a safe, cost-effective solution for Missourians."

McCaskill's reference to a "cost-effective solution" didn't sit well with the activists in Bridgeton. "I don't give a flying fuck how much it costs," says Chapman. "This is about my children."

Bridgeton's underground fire was news to Ramona Herbert, who moved to Spanish Village with her family last November. She and her husband, Joshua, came here from St. Louis' inner city, hoping for a safer place to raise their kids. When the Herberts signed a five-year lease for

their new home, no one disclosed to them that hot nuclear dumps sit a mile north from their children's bedrooms. No one told the Herberts that an ongoing landfill fire burns just down the street from their local Bob Evans restaurant. After two months in her new home, Ramona Herbert noticed an EPA flier on her door announcing a community meeting, but it meant little to her.

"My landlord said to me that we have a little sewage problem," she recalls. "So I'm thinking the sewage system isn't working right." But the stench only got worse, and she started having trouble sleeping. Parents stopped letting 14-year-old Mateo Herbert's friends shoot hoops in his neighborhood, because something in the air was making their kids' eyes water. And Joshua Herbert, who boasted a nearly spotless medical history, started suffering terrible headaches.

Ramona Herbert learned about St. Louis' nuclear waste legacy from a *Rolling Stone* reporter. As soon as she found out, she got in touch with Chapman, and she is now part of a growing coalition. Like hundreds of other concerned citizens in North St. Louis, she wants answers. "When were we going to be warned?" Herbert wonders, standing at the door of her new home. "When is it too late?"