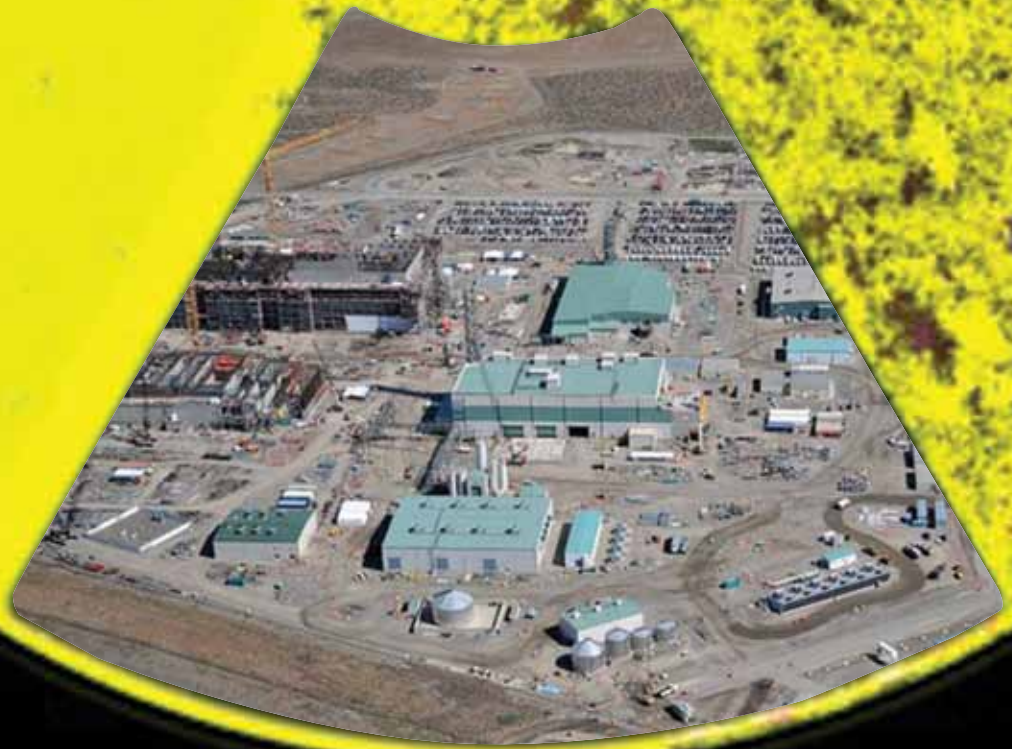
Near Nature, Nearly Perfect
But, Near Hanford

"There are over 40 miles of unlined trenches with radioactive and chemical wastes - picture I-90 as a trench 50 feet deep filled with radioactive wastes from Spokane to Ritzville, or I-5 from Seattle to Marysville. Then picture your federal government refusing to do anything to clean it up." — Gerry Pollet, JD; executive director, Heart of America Northwest



by Paul K. Haeder

photos courtesy of Department of Energy

THE HANFORD STORY IS A PUZZLE, AND THE CONNECTION to Spokane is both ironic and scary in many ways. Part two of this series will look more closely at the "hot" milk connection to Spokane, the spikes in birth defects and miscarriages in our own River City, and the overall deception government and contractors deploy when working in secrecy.

Ironically, there are so many leaks and messed up mitigation angles to the Hanford story that all the science and all the spin can't do what needs to be done – clean up the spills from old era tanks, stop the flow of radioactive muck to the Columbia and remove and contain the waste, some of which has a half life of thousands of years.

As a dovetail to the question, "How does this all affect Spokane," well, there are declassified top secret documents, whistleblowers, historians, environmental legal eagles, good old boys and gals, and writers like Kate Brown who just published *Plutopia: Nuclear Families in Atomic Cities and the Great Soviet and American Plutonium Disasters* all of whom answer that question "big time . . . Hanford's already affected people living in Spokane . . . could be the mother of all nuclear accidents, if. . . ."

This is no big "if" – one of those tanks could heat up, boil, build up hydrogen gas, and, bam, a very big explosion, and nuclear clouds like those hitting Fukushima, Japan. I'm hearing this from scientists and activists alike. Then there is the 1940s facility with an Olympic-sized capped pool with 120 million Curies of strontium and cesium. Chilled water is fed to the pool, every one or two hours. That's 660,000 gallons of cold water that has to be continually circulated. Any delay longer than a few hours could unleash hell, through a process called hydrolysis. Boiling water and hydrogen in the water that burns.

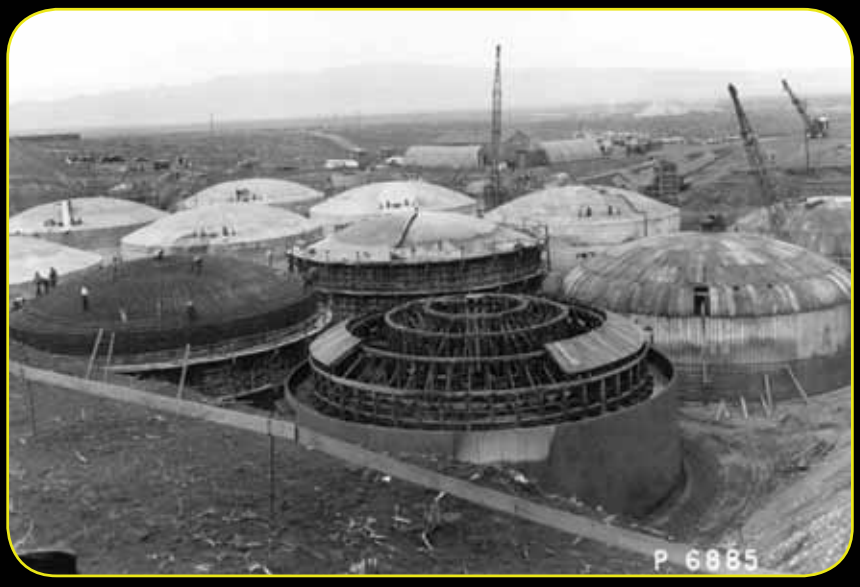
"This is a little told story, and there is no back-up," says Hanford clean-up activist, Tom Carpenter. "This could be an irreversible catastrophe. Worse than Chernobyl." So why should Spokane care about Hanford?

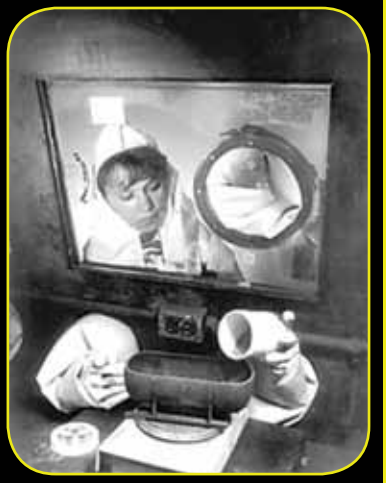
Cleaning Up: A numbers game

That caveat about finding the story can get bogged down in the numbers game, and the wonky stuff of scientists, agencies and special interest groups. Yet, the leaking tanks are part of the story, that is, part of the 53 million gallons of nuclear waste and chemicals stored at Hanford.

This has already topped over a $100 billion for clean-up efforts, and that might be a drop in the proverbial bucket since up to 200 square miles of aquifer may have been contaminated, the Columbia River is receiving leakage, and yet only two percent of the radioactivity at Hanford has been contained.

A history of tribes, farmers, workers, downwinders and the powerful push to make Tri-Cities a community rising from the ashes of WW II, the Cold War and a atomic mess now called, "The Hanford Clean-up."





"We have a moral responsibility for our generation and past generations, but we have a duty to future generations to clean up this mess," says Carpenter, director of Hanford Challenge who has been in the proverbial trenches working on the Hanford mess for three decades.

Part of Carpenter's marching orders include four main moral imperatives and mitigation strategies to carry out this mission:

1. Making sure an attitude of safety permeates the company bosses, Department of Energy managers, and leaders within the Washington State Department of Ecology for the cleanup.

The red line? "No further release of current inventories," says Carpenter.

2. Developing real tank monitoring and transparency and reporting on these tanks, some of which date back to the 1940s, and many of which are newer but "failed on the very first day of operation because hot waste cracked the tanks at the water level," says Carpenter.

3. Build new tanks, which means appropriating the money immediately, while another boondoggle, a waste treatment plan, gets on track, maybe by 2022 or more like 2030. "The DOE has to get their heads out of their butt," says Carpenter. "We are in crisis mode and this urgency is about protecting the public's health and safety."

4. Fix or replace the waste treatment plant, which is a facility that has to process radioactive waste by using *glassification*, putting the slag and muck in molten glass and then trucking it away.

"We need a band aid until that goes on-line – that band aid is new tanks," he says. "Then, we have to remove the waste, get it treated and then send it to a deep repository – inside geologic granite and dry."

Back to the Future – Ground Truthing

The good fight, for Tom Bailie, is a never-ending story. Ironically, when he was a child in Mesa, Washington (downwind of Hanford) his elementary class took a field trip. "They had this museum in Richland. Pure propaganda for Hanford, but still, as a kid, here I was playing with this cool marble machine they had. We got these fantastic cat eyes, and inside each one was plutonium. 'Here's how we are going to contain any of the radioactive waste, kiddos,' they said. Ha, that was 1961 and they were telling us kids that all that waste was taken care of. Fifty-two years later, where's that waste processing glassification plant?"

When asked what the word "Hanford" means to him, he is blunt: "Hanford has consumed my life. It is a dreadful subject to me," he says.

We are talking about mutations – in sheep, cattle, and people. We are also talking about scientists and G-men following local Boy Scout troops and going into hospital wards shadowing. What my Journalism 101 classes

always told me to do – follow the people for the real story, whether it's about corruption in city hall, on the police force, in the corporation.

Gonzaga University's special collections holds some 3,000 medical records from people treated for radiation exposure from those gas releases in Richland – called the Hanford Health Information Network.

The downwinders' story is a huge one, maybe involving hundreds of thousands, many long gone from the area, and many too old and sick to remember, and still many more dead. Many downwinders – who received that Iodine-131 in a massive release of vapors at Hanford –live and work in Eastern Washington.

People like Bailie and Trisha Thompson Pritikin are not conspiracy nuts, to be sure. Her parents worked at Hanford, her dad being an engineer during the Cold War, helping the project to produce twice the amount of plutonium that ended up in 70,000 warheads. Her mom, dad and others in her family died of cancers. She is piping hot mad, because "the downwinders have been completely left out of the story of Hanford," she says. The so-called commemoration in Richland and tours of some of the buildings throughout the month of October do not include downwinders.

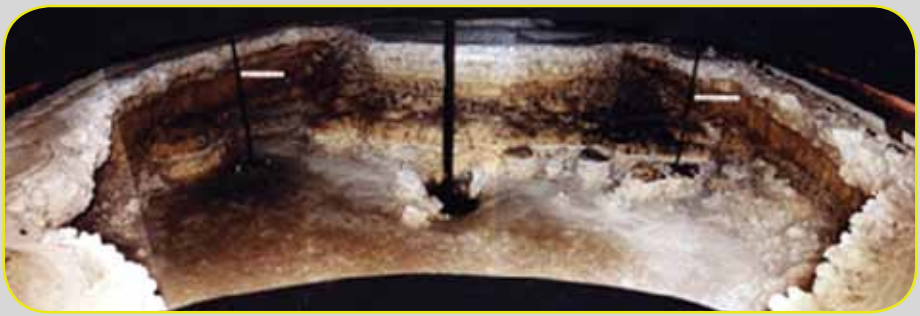
"No panel, no presenter, nothing." Thompson Pritikin is fighting to change that, even petitioning Gerry Pollet, representative from the 46th district.

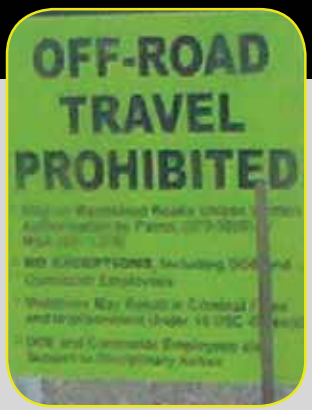
"We bear the scars," Thompson Pritikin says. She has a souvenir of the plutonium project, something known as "the Hanford necklace" – the neck scars from a thyroidectomy. As many as two million people may have been exposed to radiation released from Manhattan Project and Cold War plutonium-making operations at Hanford. The biggest releases occurred during start-up in 1944-45, but continued until 1972. Go back 70 years to Eastern Washington along the Columbia River, called the Mid-Columbia Valley: small farms and communities like White Bluffs, Richland and Hanford, and down the way towns like Mesa, where Bailie grew up and worked as a dry land farmer, or Prosser. Go back to the 1800s and you see a land exclusively made up of Yakama, Nez Perce, Umatilla, Cayuse, and Walla Walla people.

Eminent Domain and Fat Man

"When I think of Hanford and this 70th anniversary, I think of the feeling of annoyance," says Bailie, a 61-year-old lifelong resident of Mesa. He's been sort of the X-Files sleuth/ town crier/ whistleblower all bundled up as a guy who has seen uncles die of cancer, sisters who've had breasts removed, and a litany of others who have died early and suffered long because of the release of nuclear isotopes into the atmosphere.

Think of Don Quixote thrashing at windmills, and you get a sense of Bailie's effort to right the wrongs around massive leaks of radioactive steam or vapors into the air,





Hanford -- From Nagasaki to Fourth-Generation Spokanites
As They Get Sick, Age, and Die, Will Downwinders Tell The Story of Nuclear Dread

downwind from where the nuclear reactor and plutonium generating facility are.

The story of Hanford is bigger and more expansive than the version the Richland Chamber of Commerce is selling for the October 2013 celebration and tours. In a nutshell, the history is World War Two, Robert Oppenheimer, eggheads and military strategists and large companies wanting access to a lot of water (Columbia River), a large swath of deserted (sic) land and workers coming in to help with the war effort, later to assist the Cold War programs.

For WSU historian Bob Bauman, his interviews of pre-1943 Hanford residents have produced a quintessential picture of the west – small towns with people just getting by but with a sense of community pitching in with irrigation projects, barn building, general neighborly farm help.

"I see a common story of a sense of loss," says Bauman, who is working on this oral history project with others like Northwest Public Television to capture rural western towns for future generations and current researchers to hear these "unique stories and perspectives on history." He's also interviewing "the early workers" of Hanford.

The federal government entered onto the scene in 1943, made offers to buy out farmers, and then, the unfettered rush to build reactors to create plutonium commenced —first for the bomb dropped on Nagasaki, Fat Man, then the Cold War nuclear arsenal.

There are 83-year-olds talking about having that displaced feeling, Bauman points out. Land prices in the Tri-Cities area went out the roof when all those evicted farmers got low federal "buyouts" and wanted land to continue with their traditional work as farmers and ranchers. That's an area around 670 square miles cordoned off, so to speak, for the deep, dark secrets of Atoms for Peace. Many farmers left, or never farmed again, populating the Tri-Cities.

"Hanford was built in haste and secrecy to create nuclear weapons. Though bomb production is gone, the mindset lingers. There has been a serious lack of research to determine the extent of the threat posed by Hanford's radioactive and toxic legacy," says Carpenter. The organization with which he works, Hanford Challenge, is an organization that has been trying, through public outreach, legislation, lobbying, education and litigation, to clean up the mess that Bailie considers not just a by-product of unintended consequences.

"I feel screwed by my government for what I consider to be a giant human guinea pig experiment, done deliberately. Look it up, *Radiation Warfare Project.* It's still top secret," Bailie tells me.

For 70 years, the Hanford Nuclear Reservation has been releasing radioactive contaminates into the water, air and soil.

You Come With the Story

I came out to Spokane-Eastern Washington in 2001, from the frames of living and working in El Paso and years reporting along the U.S.-Mexico border and deep within Mexico and Central America. I wrote stories for newspapers and magazines on the militarization of the border, the so-called drug war and then environmental and cultural degradation along the border. Think twin plants – U.S. and foreign outfits setting up shop in Juarez and all along the 2,000-mile border. Cheap labor in the hundreds of thousands. No labor unions. Zero environmental regulation. Graft, corruption, economic and ecological nightmares.

I left El Paso when the stories about newborns birthed without skulls, or faces all scrunched up and unrecognizable as human, and the strange autoimmune illnesses hitting adults and premature deaths of young male adults were becoming regular front-page news "items."

The Hueco-Mesilla Bloson aquifer had been drawn down, underground water serving millions of people in dozens of cities and towns. New York sewage sludge was being sent west on boxcars and spread all along open range near El Paso.

The Centers for Disease Control and Prevention (CDC) had set up shop in El Paso and across the international border to study birth defects and human microbiologic anomalies not seen before.

Spokane, in the Evergreen state, nestled in the low population Inland Empire, well, this place was going to be a dream come true, environmentally and health-wise.

Not so, I found out shortly after settling in May 2001.

"My wife's extended family – and that's a huge group, over a hundred – well, almost all the women have had their thyroids taken out by age 30," says Grey Owl, a Cheyenne living in Kamiah, Idaho, and married to Martha, a Nez Perce, and a direct descendent of Looking Glass, the war chief under Chief Joseph. "And hysterectomies at age 20, 25!"

The spiritual healer Grey Owl was talking about Indians living along the Columbia, within the wind currents and aquifer zones of Hanford releasing those particles that are so unlovingly called radioactive by-products of the plutonium production machine, generally, radionuclides: Strontium-90, uranium, and tritium, thorium, iodine-131.

I was writing a story on camas digging and modern ties around cultural connections to tribe and land. I was hearing stories of fish, roots and berries eaten, ancient food that turned out to be "hot," full of radioactive particles. Soon, I ran into people all over the Palouse and throughout the Inland Northwest suffering all sorts of maladies: multiple sclerosis, thyroid and breast cancers, autoimmune diseases and a plethora of other problems.

The proverbial tip of the iceberg: Hanford.

"Spokane was hit hard with airborne releases from the 1940s to 1960s, and is downwind if there is an accident in the future," says Gerry Pollet, working on holding accountable all the actors in the Hanford mess and protecting the least powerful stakeholders in the story – you and I, past and future generations. "However, while the legacy is primarily from plutonium production for bombs, one can't ignore that it is also home to the one operating commercial nuclear reactor in the Northwest, which is of same design as the Fukushima reactors. The Spent Fuel pool is above the reactor - a dangerous configuration." (*Part two of this article will appear next month.)* S