

Where Everyone Builds Bombs

Benita Brown



Of course, when anyone asks me what my husband does for a living, I never say, "He builds nuclear weapons." No one in Richland builds bombs. People here only teach school, fight fires, design containment vessels or waste dumps, weld piping, test the water or air for contamination, monitor storage facilities to guard against leaks, or do one of a thousand other jobs. Richland is a city built by the nuclear weapons industry; it has one major industrial product: plutonium for nuclear weapons. No one in Richland builds bombs, but almost everyone does.

Our new ward chapel may be the only church in the world from which members can see five nuclear reactors and two nuclear fuel fabrication plants. No one notices, though. After all, many of the men in the ward helped build them. Most of the rest work in or near the reactors. They are just part of the backdrop, like the river or the farm fields in the distance. The horned toads and the lizards that the kids catch after church provoke more comments than the unusual view.

When the Manhattan Project began during World War II, Richland was a farm community with a population of about 300. The relative isolation of southeastern Washington, its desert climate, abundant electricity from Grand Coulee Dam, and the water of the Columbia River that flowed nearby made this the ideal site for the Manhattan Project's plutonium production reactors. The army moved the farmers out of Richland and the land north of town. DuPont Company, under contract with the army, moved about 51,000 construction workers, engineers, scientists, and support personnel into temporary barracks and trailers. In eighteen months, they had built and begun operating the Hanford Reservation's reactors and processing plants that produced the plutonium used in the atomic bombs dropped on Japan. Camp Hanford, the

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construction camp, was Washington's fourth largest city for a time, and most of the people who lived there had no idea why. (Much of the rest of the state had no idea it was there at all.) It was only after Hiroshima was bombed that most Hanford workers learned they had been working on an atomic bomb and that they had been manufacturing plutonium.

After the war, most people assumed Camp Hanford and the Hanford Reservation (usually called the Area by Richlanders) would be closed and life would return to its prewar routine, but the cold war had its own logic. The barracks were replaced by more permanent housing. More reactors and processing plants were built.

The new Area contractor, General Electric, not only ran the plants, but also Richland. It owned all the buildings in town, built and maintained the roads and city utilities, and even provided the residents with grass seed and trees. Anyone who lost his or her job with General Electric also lost his or her home and had to leave town. There was no unemployment and little crime. In 1958, after long negotiations, GE sold the houses and businesses to their occupants and the public facilities to the newly incorporated City of Richland. Some of those homes have now been purchased by the children of those transplants and a third generation is growing up.

In the late 1960s most of the reactors were shut down; there was plenty of plutonium for the United States weapons stockpiles. Only one, the N reactor, remains, producing plutonium for both weapons and electricity. Until 1980, it was the only reactor on line, or active, in the Area. Then the Fast Flux Test Facility (FFTF), a reactor designed to test fuels for future breeder reactors, came on line. In 1984, a nuclear power plant, WNP-2, began commercial production of electricity. Construction of another nuclear power plant temporarily halted for lack of funds is supposed to resume in 1986. In the meantime, there are other nuclear plants, one that reprocesses used reactor fuel into plutonium nitrate, another that converts plutonium nitrate into the plutonium oxide and plutonium metal used for warheads, and a new plant being designed that will enable the FFTF's fuel to be reprocessed for weapons. There are rumors of another plutonium production reactor to be built, but defense budgets don't always correspond to the latest rumor.

This isn't entirely a one-industry town. There is a varied agricultural economy in the region; UI Group (formerly U&I) moved its headquarters in the 1970s to nearby Kennewick and irrigates 100,000 acres of farmland south of town. Tourists flock to the rivers and sunshine from the wetter parts of Washington, and Burlington Northern has a large railroad switching operation just ten miles away in Pasco. Several high-tech firms are headquartered here, not all doing work developed from the nuclear industry. Still, one 1980 estimate said three quarters of the 130,000 people in the Tri-Cities region (Richland, Kennewick, Pasco) owed their livelihood to the nuclear industry, in either power production or weapons.

Some people who live in Washington or Oregon plan large detours in any trip that would otherwise take them near the Area. I have always found that

incomprehensible — nuclear reactors have always been just another part of my life, like cars, airplanes, and television. I grew up in the Tri-Cities. My father, an electrician for the federal government, often worked in the Area. I toured a reactor with my high school science club. It was only during college that I learned most people didn't share my matter-of-fact attitude. Still, in 1980 when my husband, Dallas, accepted a job with one of Hanford's contractors, I was happy to return to what I consider my home town and didn't hesitate to begin work with one of the high-tech firms on the edge of Hanford Reservation. Both of my children were born in Richland, and will likely grow up with the same matter-of-fact attitude that I did. At ages three and one they've already toured the visitors' centers with us, playing with the models of the equipment nuclear operators use to handle hot (radioactive) material. They love to wear their father's security badge and dosimeter around the house. At three Christine can already explain (although with some inaccuracies) how a reactor works. Neither she nor Matthew is likely to encounter anyone with strong anti-nuclear sentiments in Richland.

Nearly everyone is curious. "What's it like living where almost everybody builds bombs?" and "Do you feel safe living there?"

Life in Richland isn't much different from life in any other small western city. People go to work, play with their children, attend church, take care of their homes, complain about city services at city council meetings, and otherwise attend to the usual mechanics of life in twentieth-century America.

Because so many of the older church members in Richland worked together in the 1940s and 50s building not only the reactors, but also the town's chapels and wards, there may be a stronger feeling of community here than elsewhere. There was a strong feeling of kinship with the Mormon pioneers of the nineteenth century. After all, they, too, left family and friends to live in what was then a barren desert and build a community, all for a cause that was greater than themselves. Now that so much of the pioneering is done (the streets are paved, the trees have grown, the reactors are built, the tiny branch is now a thriving stake) those feelings are fading.

New arrivals sometimes experience mild culture shock. They are amazed to be living in a desert. Metropolitan transplants often spend months trying to figure out what anyone does for entertainment here. Though the local amateur theater, symphony, chamber music, ballet, and musical theater groups are all well supported, Richland just isn't large enough to draw much big name entertainment.

There are the jokes. "Who in their right mind would build a three-bedroom house with only one closet?" "The same people who brought you the Manhattan Project."

"One nice thing about hunting ducks that feed near the cooling ponds is that the meat doesn't have to be refrigerated; it's already been radiated."

In the Lamaze class we took before our first child was born, one class member commented that the babies in the childbirth film were all smaller than those that had been born to his friends in town. The instructor just laughed,

"Oh, it's the radiation. Richlanders glow in the dark, you know." (I laughed too, but almost half of the babies born in our ward in the last few years, including both of mine, have weighed over ten pounds. Now I just wonder.)

Sometimes, they fumble with the vocabulary for awhile: "crapped up" (contaminated by radioactive material), "burned out" (exposed to the maximum radiation dose allowed during a week, month, or year), "see the light" (see the pale blue-violet flash that accompanies a criticality), "criticality" (a sudden rise in energy release from fissile materials), "scram" (emergency shut-down of a reactor), "RM" (Radiation Monitor). Older workers, after years working under more relaxed conditions than the Nuclear Regulatory Commission allows now, have a casual attitude toward radiation not shared by younger workers.

There are other differences. One high school girl protested, "What is it with this town? Everybody at school wants to be an engineer." My own daughter announced she wanted to be an engineer shortly after her third birthday. (Only about one-half of one percent of all licensed engineers in this country today are women; but if current enrollment trends at engineering schools continue, by the time Christine is old enough to follow through on that resolve as many as 10 percent may be women.) Many of the townspeople already are. When people here talk about their work (if they can) it is often a fog of technical jargon. Computer clubs are popular. Gardens often have elaborate custom-designed automatic sprinkler systems. Many people have designed and built their own sailboats.

This may also be the most pro-nuclear power community in the country. Two years ago, when it was announced that one of the nuclear power plants under construction in the Area would be shut down for lack of funding, 12,000 people turned out for a hastily organized protest rally. The local newspaper, the *Tri-City Herald*, often runs pro-nuclear editorials. Sometimes when I read stories about leaks in Hanford's waste storage tanks (supposedly all taken care of now) I begin to doubt that I'm getting the whole story, but there is no way for anyone who doesn't have a security clearance to know and anyone with a security clearance doesn't talk about it.

Dallas and I moved here one year after the accident at Three Mile Island, but neither of us were too concerned about our safety. After all, the Area had been operating for nearly forty years — these people were experienced professionals; they knew what they were doing. Besides, even if an accident like the one at Three Mile Island did occur, the N reactor was thirty-five miles away, not right next door. True, the FFTF came on line later that year; it's only about eight miles out of town, and now WNP-2 is on line and even closer to town. In a town full of nuclear engineers and operators, that doesn't raise much concern — just complaints about all the emergency drills the NRC requires of the reactor personnel and local police and fire departments. People who work for any of the Area contractors wear their dosimeters every day and know what their exposure to radiation is. If it exceeds the limit, that means they can no longer work in a radioactive zone. People who work in other in-

dustries—in mining or in coal-fired power plants—don't have that protection.

Sometimes when people ask me about safety, they aren't thinking about radiation from Hanford's reactors, but about living near what may be a target for Russian nuclear missiles or bombs. As a child growing up in the Tri-Cities I never worried about radiation from Hanford. No one worried about X-rays or fluoroscopes, either. My friends and I did worry about bombs. We weren't certain what all was done out at Hanford, but we knew the Russians were going to bomb it. We had air raid drills in school, crouching with our heads between our knees in the cloakroom. We watched civil defense films in health class. Our neighbors built a fallout shelter in their backyard, and my brothers and I planned with their kids what we would bring when we all moved into it. Then someone, probably my brother Cliff, the realist among us, told us Hanford was a first strike target. None of us would live long enough to get to a fallout shelter. We argued long and hard about that. Jane and Mike, the neighbor kids, were sure they would live. They were good Catholics who went to mass every Sunday and it was only thirty feet from their back door to the fallout shelter, but we lived clear down the block and besides, they wouldn't open the door for us anyway. The crisis soon passed, everyone was welcome in the fallout shelter when it was finished (it was a great place for beginning trombonists and drummers), and the neighborhood Halloween party was held there that year.

I wondered about that, though; and for the next several weeks, when it was my turn to walk the dog before school, I practiced running down to Paschke's house to see how fast I could get there. Maybe Cliff was right, but since I couldn't practice dying, I thought I might as well practice running. A few years later, I read *Hiroshima* and realized what Cliff meant by a first-strike target.

It's strange, but in every place I've ever lived, when the subject of nuclear war came up, someone was sure that place was a first-strike target. Maybe that's only a result of overkill capabilities. If the whole earth can be destroyed thirty times over, then this place will be, too. Or maybe it's some strange kind of boosterism. "This town is so important that it's a first strike nuclear target." I didn't question that when I lived in Washington, D.C., but Moses Lake, Washington? Logan, Utah? Cliff now lives in Los Angeles; his coworkers have assured him that Los Angeles is a first strike target. I wondered about that for a long time, and only recently have come up with an explanation that has satisfied me.

Last fall, after the Marines in Lebanon were bombed and the United States had invaded Grenada, I experienced a real rise in anxiety. I kept the radio on constantly, trying to hear every news broadcast all day long. I was afraid a crisis had arrived that would lead to more of the plutonium produced at Hanford being used. Then one day, when I was particularly tense, I heard a report about Carl Sagan's study group's findings on the effects of a nuclear war. They said it would cause a "nuclear winter," ending all life on earth. Suddenly, I felt all my tension ease. I realized that it wasn't dying I had been afraid of.

It was surviving. Before Sagan's report, only people who thought they lived in a first-strike target didn't need to worry about survival; they were freed from thinking about what is most frightening.

Now when someone asks me about feeling safe near Hanford, I talk about distances and dosimeters and tell a few Hanford jokes. If they ask about an attack, I tell them about Sagan's report and point out that though I hope we never find out for sure, if he's right, we all face the same danger, and if he's wrong, well, I probably won't be around to know. That may seem flippant, but it is hard to deal with such an irrational subject in any rational manner.

No one, after learning that I live in Richland, has ever asked me how I felt about supporting the arms race. Perhaps people are just polite, not wanting to bring up a controversial subject, or maybe they just assume nuclear workers are all in favor of it since it provides them with their livelihood. Most aren't. A few have a sense of mission that has carried over from Hanford's beginnings during World War II. Some have the attitude that people in Washington, D.C., who know more than they do have decided nuclear weapons are necessary and they are just supporting national policy as good citizens. A few have decided that since the plutonium is going to be made and the weapons built by well paid workers, they might as well have a piece of the action. Some, particularly safety workers of various sorts, view their work, not as part of the process of building weapons, but as keeping the people who live and work here safe. I felt that way writing reports on equipment developed to reduce workers' exposure to radiation. Many workers in the weapons plants view themselves as refugees from the nuclear power industry; they would rather be building or running power plants than producing plutonium for missile warheads, but the power industry is so moribund that there aren't many jobs available. Convinced that someday nuclear power plants will be desperately needed, they keep their licenses up to date and develop more expertise doing defense work until that day comes.

A few people have decided it's just another job. They may be right; in a technological society, who isn't contributing to defense work? In more agrarian times and societies, armies burned farmers' crops to destroy their enemies' means of support. Today that support comes from every part of society. Hanford workers made the plutonium for the bombs dropped on Japan. Los Alamos workers made the bombs. Workers in Boeing's factories built the bomber. Many people bought the war bonds that helped pay for it all. Who was responsible? Who built the bombs? Today Hanford workers make plutonium. Los Alamos and Rocky Flats workers build the actual warheads. Aerospace workers build the missiles. Steel factory workers make the steel for the missiles. Computer manufacturers build missile guidance systems. Everyone pays the taxes that pay for it. Who is responsible? Who really makes the weapons?

That is the real difference between Richland and most of the rest of the country. We are near enough to the end of the weapons production cycle that we can't forget. The security passes and dosimeters serve as a daily reminder

of what kind of work we do here. Sometimes I think that there may be another little girl somewhere practicing running to a fallout shelter. I don't like to think that somehow I am partly responsible for the fear she feels. But even if I leave here, how can that change? For it may be true that no one in America builds bombs, but it may also be true that everyone does.