

Aerial view of Pantex. *Wikimedia Commons.*

## *"Host and Hostage": Pantex and the Texas Panhandle*

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THE BOOM IN MILITARY PRODUCTION MADE NECESSARY BY U.S. ENTRY into World War II led to the expansion and creation of numerous military-industrial facilities around the country. These facilities changed physical landscapes, created communities, fueled economies, and transformed American culture. Dating to 1942 and still in operation, Pantex is located in the Texas Panhandle amidst ranches and wheat fields. It has been for decades the sole site of U.S. nuclear arsenal assembly and disassembly, a mission that has expanded to include the storage of nuclear pits from disassembled weapons. While many scholars have described the Atomic Age and the nuclear complex, Pantex has received little attention. The present study explores the often contradictory relationship between Pantex and the Texas Panhandle, which has been marked by patriotic support and economic boosterism on one hand and increasing skepticism, especially concerning environmental contamination, on the other.

The transformational changes that occurred at specific military-industrial sites have received considerable attention from scholars, the majority have focused on well-known facilities such as Rocky Flats, Colorado, Hanford, Washington, Los Alamos, New Mexico, and Oak Ridge, Tennessee. Peter Bacon Hales in *Atomic Spaces: Living on the Manhattan Project* looks at three locations, Hanford, Oak Ridge and Los Alamos, and details the changes in these communities between 1942 and 1946 as they became

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key players in the government's nuclear program.<sup>1</sup> While Hales focuses on physical changes, Joseph Masco takes a different approach in his anthropological study of Los Alamos, *Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico*. Masco argues that the changes in identity that the people in and around Los Alamos experienced are permanent and transcend the physical effects of the landscapes and the economic effects of the people.<sup>2</sup> Len Ackland in *Making a Real Killing: Rocky Flats and the Nuclear West* and John M. Findlay and Bruce Hevly in *Atomic Frontier Days: Hanford and the American West* come to similar conclusions concerning the arrival of the federal government in Rocky Flats and Hanford. Both argue that the communities welcomed the federal government's creation of nuclear sites because the residents wanted the economic benefits for their communities. Ackland, however, is critical of this acceptance because the residents looked at short-term benefits only while ignoring the long-term consequences for decades.<sup>3</sup>

This essay adds Pantex and the Texas Panhandle to this list of histories of atomic communities, following Masco's example of paying "attention to local effects of the nuclear age."<sup>4</sup> So far the history of Pantex has existed only in disparate fragments and artifacts—as journalism, amateur history, and Web sites—or buried in government reports and archives. The focus here is predominantly on how the people of the region have a conflicted view of Pantex as at once beneficial and malign, and of their region itself as host to Pantex; therefore, research herein concentrates primarily on local media coverage, newspaper journalism, and archival materials connected to Pantex advocacy and opposition groups in the region. In taking a regional approach, I share Findlay and Hevly's effort, concerning Hanford, to find a "middle way into the subject," a regional perspective located between national history and personal response.<sup>5</sup>

The Texas Panhandle is largely characterized by a social and political conservatism that is as patriotic toward "country" as it is suspicious of "big government." The regional attitude toward Pantex is thus fractured along several fault lines—ideological, cultural, and religious. The region champions itself as pro-business and has accustomed itself to Pantex's economically powerful presence, with some Panhandle residents coming to believe

its economic importance makes it an indispensable necessity. On the other hand, many of their neighbors have become increasingly alarmed by the plant's environmental impacts, and their concerns have been exacerbated by the facility's lack of transparency in dealing with the public.

Shortly after entering World War II, the U.S. government opened Pantex to make conventional explosives and ordnance. In December 1941 Congress authorized construction of a war plant in Carson County on developed farmland just east of Amarillo.<sup>6</sup> This land was part of a German Catholic community called St. Francis, which was founded in 1907.<sup>7</sup> Pantex began operations in 1942, coincidentally the first really wet year since the Dust Bowl. That spring the finest crop of winter wheat in many years was near harvest when on April 6, 1942, nineteen farm families were summoned to meet with military spokesmen at Liberty Hall, the community's civic center.<sup>8</sup> They learned they had fourteen days to vacate their land. The buildings were to remain standing, for government use, and the wheat in the ground, uncut and unsold. The farmers disposed of livestock and equipment however they could—which meant hasty, forced sales—and sought new living arrangements for themselves and their families.<sup>9</sup>

Despite assurances they would get fair market value for their land and homes, many farmers felt the offers undervalued their real estate. Furthermore, the compensation failed to cover improvements on the properties. The government offered the farmers \$2.50 an acre for the wheat in the field, paid contract laborers a handsome \$6.00 per acre to harvest it, and raked in revenue of almost \$30.00 per acre.<sup>10</sup> Farmers removed from the land never saw profits from that bumper harvest of wheat. Some felt cheated, manipulated, and betrayed by the federal government.<sup>11</sup> The question of land value went to court in July 1943. After four weeks, litigation ended favorably for farmers, who received higher payouts for their land as a result, in total about \$750,000 for 15,000 acres; however, many of the complainants waited until 1944 for payment, and one until 1949. The delay left some families in a lurch, unable to arrange new living arrangements before their evictions. Exacerbating difficulties presented by the hasty removal of area residents, the wet year meant muddy conditions that slowed the moving process considerably.<sup>12</sup>

<sup>6</sup> Paul Carlson, *Amarillo: The Story of a Western Town* (Lubbock: Texas Tech University Press, 2006), 140.

<sup>7</sup> Bobby Weaver (ed.), *A Harvest of Memories: The St. Francis Story*, compiled by the St. Francis Historical Committee (Amarillo: Southwestern Publications, 1983).

<sup>8</sup> Susana R. Katz, *History of the Pantex Plant Vicinity, 1941–1953*, vol. 1 (Amarillo: PRIAM for Mason and Hanger-Silas Mason Co., 1995), 19–21.

<sup>9</sup> Weaver (ed.), *Harvest of Memories*, 34.

<sup>10</sup> Ibid.

<sup>11</sup> Susana R. Katz, *History of the Pantex Plant Vicinity, 1941–1953*, vol. 2 (Amarillo: PRIAM for Mason and Hanger-Silas Mason Co., 1995), 20–25, 29–33.

<sup>12</sup> Weaver (ed.), *Harvest of Memories*, 35; Katz, *History of the Pantex Plant Vicinity, 1941–1953*, vol. 1, 22.

<sup>1</sup> Peter Bacon Hales, *Atomic Spaces: Living on the Manhattan Project* (Urbana: University of Illinois Press, 1997).

<sup>2</sup> Joseph Masco, *The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico* (Princeton, N.J.: Princeton University Press, 2006).

<sup>3</sup> Len Ackland, *Making a Real Killing: Rocky Flats and the Nuclear West* (Albuquerque: University of New Mexico Press, 1999). John M. Findlay and Bruce Hevly, *Atomic Frontier Days: Hanford and the American West* (Seattle: University of Washington Press, 2011).

<sup>4</sup> Masco, *Nuclear Borderlands*, 2.

<sup>5</sup> Findlay and Hevly, *Atomic Frontier Days*, 7.

Locals suspected the site was selected for reasons apart from geography. Leroy Matthiesen, later bishop of Amarillo but still a seminarian during the war, wrote: "Government investigators, encouraged by Amarillo commercial interests, had correctly diagnosed the depth of the patriotism of the St. Francis farmers."<sup>13</sup> Local farmers furthermore suspected that the area was chosen because the government knew that a German American community was less likely to protest. They pointed to the anti-German sentiment of the time to explain the government's choice of the St. Francis community and its poor treatment of the displaced farmers.<sup>14</sup>

Prejudice aside, geography was reason enough to choose the well-developed farmland east of Amarillo. The army required proximity to such a regional hub on relatively level and unbroken land with good electrical infrastructure, access to water, and solid buildings. Rail transportation was of great importance; the town of Panhandle, ten miles northeast of the plant, was an early railroad hub that became part of the Atchison, Topeka and Santa Fe Railway system. These features meant faster startup for a potential Amarillo plant, and the war made bomb production an urgent matter of national security. With no time for niceties, St. Francis fit the bill. Liberty Hall was moved to "Tech Village," where Pantex workers were housed.<sup>15</sup> Less than ten months elapsed from the government's decision to locate a plant in the Texas Panhandle to the completion of the first bomb at Pantex, on September 18, 1942.<sup>16</sup>

While the removal of farmers and ranchers caused grief, the WWII bomb factory enjoyed a positive relationship with its employees and the surrounding communities. The public project not only provided good jobs for local people through its private contractor, Certain-Teed Products Corporation, but also Pantex gave the patriotic citizenry of the area an important part in the war effort. The plant produced a bi-monthly magazine, the *Pantexan*, which demonstrated the spirit of camaraderie and can-do spirit of the time. The in-house publication featured articles on safety and security, plant events, and social life, and included human-interest stories on employees. Its editors were dedicated to keeping commitment to mission strong and morale high. The first issue, dated September 15, 1942, opened with the article "Pantex Axes Axis" and a photo of suited plant managers smiling next to a rack of bombs marked "From PANTEX, to HIROHITO."<sup>17</sup> Stories pointed to the number of women working the production lines. Readers learned that "nimble fingers" made women

better than men at assembling booster rockets and other mechanical parts. Humorous details regarding their stylish uniforms, including the "unmentionables," the mention of which reportedly caused a "furor" in the Purchasing Department, added a degree of levity.<sup>18</sup> At peak WWII production, the plant employed 5,254 workers, about 60 percent of whom were women.<sup>19</sup>

This plant, like many others of the wartime effort, soon wound down. The *Pantexan* ceased publication by an order issued August 1943 for the stated reasons of economy and conservation.<sup>20</sup> Pantex the high-explosives plant closed at war's end, employees stayed on for the work of "bedding down" the facility, and by early October 1945 cleanup crews began decontaminating buildings where high explosives were handled to prevent accidental detonation of explosives-infused wood when the government sold it as scrap to locals.<sup>21</sup> The land lay abandoned until 1949, when it was sold it for one dollar to Texas Technical College (now Texas Tech University, located 120 miles to the south in Lubbock). The federal government retained the right to reclaim the site, which the college would use for experimental agriculture.<sup>22</sup> In 1951 the recapture option was exercised and the Atomic Energy Commission reopened the plant. The school kept a piece of the land in cultivation, south of the original ordnance plant, which Pantex leased as a security buffer.<sup>23</sup>

Although citizens learned the plant had a new mission, the new Pantex was shrouded in secrecy and became a source of pride and fear. Because the new contractor was Procter & Gamble, a company famed for its production of Ivory soap, the joke circulated that Pantex was a soap factory.<sup>24</sup> The *Pantexan* was resurrected in 1953 as a corporate newsletter. In 1956 Mason & Hanger-Silas Mason assumed the role of contractor for the Atomic Energy Commission. Since reopening, the plant's stated mission continued to include the manufacture and testing of conventional explosives, so residents heard—and often felt—explosions from the firing grounds at Pantex on a regular basis. They did not then know those explosions were tests of the trigger mechanisms used to detonate plutonium weapons. Only much more recently has clearer information on the plant's mission come to light, such as the disclosure that appeared in a 1997

<sup>13</sup> "Women on the Job," *Pantexan*, Oct. 15, 1942, 4–5.

<sup>14</sup> Jim McBride, "Pantex Production Began in 1942," *Amarillo Globe-News*, Apr. 21, 2004.

<sup>15</sup> "It's 30 for Pantexan," *Pantexan*, July 15, 1943.

<sup>16</sup> "Decontaminate Pantex Plant," *Amarillo Globe*, Oct. 2, 1945.

<sup>17</sup> "Tech Gets Keys to Pantex Plant," *Amarillo Times*, Mar. 31, 1949.

<sup>18</sup> Charles R. Loeber, *Building the Bombs: A History of the Nuclear Weapons Complex* (2nd ed.; Albuquerque: Sandia National Laboratories, 2005), 89. "Pantex Plant History," <[http://www.pantex.com/about/Documents/ex\\_doc\\_history.pdf](http://www.pantex.com/about/Documents/ex_doc_history.pdf)> [Accessed Jan. 7, 2015].

<sup>19</sup> Smith to Hunt, Mar. 27, 2007 (interview).

<sup>13</sup> Leroy T. Matthiesen, *Wise and Otherwise: The Life and Times of a Cottonpicking Texas Bishop* (Amarillo: Custom Printing Company, 2005), 126.

<sup>14</sup> Philip and Dorris Smith to Alex Hunt, Mar. 27, 2007, interview (discs in possession of author).

<sup>15</sup> Matthiesen, *Wise and Otherwise*, 126.

<sup>16</sup> Carlson, *Amarillo*, 151.

<sup>17</sup> "Pantex Axes Axis," *Pantexan*, Sept. 15, 1942, 4–5.



Front covers of the *Pantexan*, April 1942 and October 1942. Courtesy of Panhandle-Plains Historical Museum.

*Amarillo Sunday News-Globe* article that 7,000-plus nuclear weapons were produced at Pantex produced in 1960.<sup>25</sup>

Details about Pantex were not forthcoming during the height of the Cold War, and the federal government could rely on a patriotic and conservative populace to do their duty in keeping quiet. The local press reported that the Atomic Energy Commission reopened the ordnance plant in 1951. At a Chamber of Commerce meeting in the Panhandle town of Borger the "director of information" for the Atomic Energy Commission in Los Alamos spoke about the growing field of atomic energy. The spokesman noted the field's expansion in the American Southwest, according to the *Amarillo Daily News*, and that people in the Texas Panhandle and Colorado would soon notice "new laboratories and huge new production plants" associated with the nation's atomic ambitions. This development would benefit local people primarily, he said, but warned, "Like all of our other plants," the work at Pantex "has to remain classified." He hoped "you West Texans won't be too curious about what is being done."<sup>26</sup>

The same year an Amarillo Chamber of Commerce delegation visiting Los Alamos asked what Pantex would manufacture. "They didn't really

expect an answer," a reporter wrote, "but got one—the only one available at present." That answer was "Weapons components." Pantex supervisors would travel to Los Alamos for training.<sup>27</sup> A year later an article on construction progress was misleading:

For security reasons, officials cannot say when the plant will be put into operation except that it will be sometime in 1953 when the project is fully underway. Nor can they reveal to any degree the nature of the work involved at the plant. However, they have repeatedly stated that "work at Pantex will not involve radioactive materials."

Speculation as to what type of manufacture the work involves has been widespread, ranging from: Parts and mechanisms for atomic bombs to guided missiles and artillery shells to be fitted with atomic explosives to deuterium, a form of hydrogen and a possible ingredient for making hydrogen bombs.<sup>28</sup>

That the assembly of nuclear weapons, including the insertion of plutonium warheads, was described as an activity that "will not involve radioactive materials" is a fine example of doublespeak, a discursive evasiveness that allowed government officials to make misleading distinctions—for instance, that mere assembly does not constitute radiological production.

Such reporting was typical for the era. From the 1950s through the 1970s, news media covered certain kinds of information on Pantex while remaining tight-lipped about operations and problems. News stories reported economic figures and bids awarded to subcontractors, typically Amarillo or Lubbock construction firms. They touted safety record benchmarks and awards; personnel matters such as hiring, reassignments, retirements, and obituaries; administrative alignments and oversight; and labor issues. On the whole, mundane goings-on at Pantex were discussed, but not the actual mission, production numbers, or hazards. No one who lived in the area in these years remembered exactly when they understood what went on at Pantex. The knowledge coalesced slowly, by degrees.<sup>29</sup> "One of the really rotten things that the people at Pantex did was sneak it up on us," said Amarillo financier, pundit, and artist Stanley Marsh 3—decades later, expressing a view held by many residents of the Panhandle.<sup>30</sup>

Newspapers from the 1960s show a slow revelation of Pantex's mission, seemingly orchestrated to inform the public without alarm. A 1963 story announced a major shift in plant operations, new management, but buried the biggest news to the community, the plant's overall mission of

<sup>27</sup> Fred Post, "Los Alamos to Train Pantex Supervisors," *Amarillo Globe*, Aug. 5, 1951.

<sup>28</sup> Bob Bray, "Pantex Job Near Half-Way Mark," *Amarillo Globe-Times*, Jan. 15, 1952.

<sup>29</sup> A. G. Mojtabai, *Blessed Assurance: At Home with the Bomb in Amarillo, Texas* (Boston: Houghton Mifflin, 1986, 59–60).

<sup>30</sup> *Plutonium Circus*, directed by George Radliff (Houston: Wildcatter Productions, 1995), VHS.

<sup>25</sup> Jim McBride, "Nuclear Crossroads," *Amarillo Sunday News-Globe*, June 1, 1997.

<sup>26</sup> Harry Hoare, "AEC Representative Reveals Facts on Pantex Atom Plant," *Amarillo Daily News*, Apr. 21, 1951.



"explosive component manufacturing and assembly." Here the language omitted the type of "components" assembled. A 1968 *New York Times* story on the B52 crash at Thule Air Force Base in Greenland reported that fragments of the four hydrogen bombs destroyed in the crash would be "flown back to the A.E.C. Pantex plant at Amarillo, Tex., where the bombs were manufactured, for disposal."<sup>31</sup> Also in 1968 the *Amarillo Daily News* ran a three-part series that concerned the Atomic Energy Commission and centered on the importance of Sandia Labs in Albuquerque. The second part of the series carried the headline "Pantex Defense Role Vital" and a paragraph late in the story: "The Pantex Plant . . . fabricates explosive components for nuclear weapons and assembles them into completed nuclear arms, ready for delivery to the Department of Defense."<sup>32</sup> This major disclosure was neither headline nor lead paragraph, but buried toward the end of the story. More than a year later, on December 6, 1969, an article ran under the headline "Pantex: Defense Armory and Top Economic Asset," and opened with the official disclosure of Pantex's actual role:

The shroud of secrecy veiling the operation of the Atomic Energy Commission's Pantex Plant northeast of Amarillo was lifted an inch or two Friday to give a quick peep at the plant's facilities.

The visitors were told officially that the Pantex Plant designs, develops, produces, tests, and stores nuclear weapons.<sup>33</sup>

The occasion of the story was an official tour of the plant offered to "educators, businessmen, ministers, newsmen and others." Clearly the event was designed as part of the public rollout of the plant's mission, which by this time was clear to all—in generalities at least. As the headline promised, the story went on to provide details about the plant's size and budget, in order words, its economic importance to the region.

In a 1972 exposé on plant manager John Drummond, Mike Price quoted Drummond's comments on the plant's economic benefit to the region, the jobs it provided, and its service to the community. In addition to touting employees' work for philanthropic and civic causes, Drummond reported Pantex "pumped \$28 million into the area economy over the past year."<sup>34</sup> Still unknown to the general public, a significant new circumstance developed. In 1975, with the end of operations at other U.S. Department of Energy (DOE) facilities in the country, including the 1973 closure of an ordnance plant in Burlington, Iowa, Pantex became the sole site of nuclear weapon assembly in the United States.

The Amarillo press reported the news that Pantex was the sole site of final assembly in December 1977: "America's nuclear eggs all go into the same basket at one time or another," one article began, "that being the Pantex Plant," which "is the only final assembly plant for nuclear weapons presently operation in the United States." Pantex was gearing up to produce the new neutron bomb, called an "enhanced radiation weapon," which promised to kill people without knocking over buildings. The article went on to offer consolation of sorts: the 1978 budget would total around 50 million dollars, with the plant employing about 2,000 people, on a payroll of 30 million dollars—with "Almost No Danger," added a sidebar story.<sup>35</sup> Barring accidents or full-scale thermonuclear war, Pantex was perceived as more of an asset than a threat to local residents. Poet and musician Buck Ramsey recalled wryly of his childhood in the area that awareness of Pantex brought "a kind of quiet and mysterious source of pride."<sup>36</sup>

Yet accidents happened at Pantex. The only fatalities from explosions occurred on March 30, 1977, when three employees were killed using a lathe to shape a chemical high explosive—conventional, non-radiological.<sup>37</sup> In 2004 the Environmental Protection Agency released information about several "radiological incidents" at Pantex. In 1961 plutonium was released in one of the "Gravel Gerties" and, according to authorities, never escaped the structure. Employees "properly disposed of" the deadly radioactive dust and tested clean.<sup>38</sup> Another nuclear accident occurred in 1979 when rainwater from a leak "collected in an unsealed underground concrete storage container in the Nuclear Weapons Accident Residue site." This material, "radioactive debris from five separate military craft accidents, residue from Pantex firing site test shots and low-level radioactive waste from Pantex operations," was moved to another location.<sup>39</sup> After the nuclear contamination of rainwater from the leaky roof in 1979, a container leak in a magazine led to plutonium oxide contamination, according to a report filed in 1984. Workers cleaned the site by grinding off the radiological rust—without proper safety equipment—and "possibly carried contamination off-site," though no plutonium contamination was found later.<sup>40</sup> On January 10, 1986, "depleted uranium was released when exhaust fans were turned on and off several times following a test detonation at Firing Site 23." All personnel were upwind, and downwind exposure threats were deemed "negligible."<sup>41</sup> On May 17, 1989, an acci-

<sup>35</sup> Jerry Huff, "U.S. Nuclear Arsenal Assembled at Pantex," *Amarillo Sunday News-Globe*, Dec. 11, 1977.

<sup>36</sup> Buck Ramsey quotation from *Plutonium Circus*, VHS.

<sup>37</sup> Jerry Huff, "Almost No Danger," *Amarillo Sunday News-Globe*, Dec. 11, 1977.

<sup>38</sup> Jim McBride, "Radiological Incidents Reported," *Amarillo Globe-News*, July 5, 2004.

<sup>39</sup> *Ibid.*

<sup>40</sup> *Ibid.*

<sup>31</sup> Neil Sheehan, "Roll 'em for Operation Dr. Freezelove," *New York Times*, Feb. 4, 1968.

<sup>32</sup> John DeBaun, "Pantex Defense Role Vital," *Amarillo Daily News*, Sept. 30, 1968.

<sup>33</sup> "Pantex: Defense Armory and Top Economic Asset," *Amarillo Daily News*, Dec. 6, 1969.

<sup>34</sup> Mike Price, "Pantex Helps Make Booming Economy," *Amarillo Daily News*, Nov. 13, 1972.

dent exposed workers to tritium gas inside a weapons assembly cell. Radioactive gas escaped the facility during the accident, and the rest "dispersed into the atmosphere" when authorities vented the building two hours later. Four workers received "negligible" doses of radiation; a fifth worker received "less than the annual regulatory dose limit."<sup>42</sup> This site was sealed off in 2004 because of tritium contamination.<sup>43</sup> Because knowledge of these accidents remained secret until the twentieth-first century, they had no effect on prevailing opinion in the Panhandle.

In 1979 two articles in the Amarillo press suggested a shift in public attitudes. This shift in local consciousness of Pantex, though late in arrival, is consistent with what Scott C. Zeman and Michael A. Amundson describe as "Late Atomic Culture," 1964–91, when increasing political skepticism and a growing anti-nuclear movement brought about more national discussion of the atomic industry.<sup>44</sup> In March the Amarillo newspaper gave prominent placement to the headline "N-garbage buried at Pantex." Attempting to put to rest concerns about health effects, the story caught plant manager Paul R. Wagner in a lie. Although a 1976 DOE Environmental Assessment described a Pantex "burial ground for nuclear waste materials, including highly radioactive plutonium-239," Wagner had told the paper there was no nuclear waste buried at Pantex. Upon further questioning he admitted the existence of "low-level nuclear waste materials" buried under plant property: "We can't do anything with it, and rather than risk giving it to the sanitation department, we bury it," a cavalier statement even for 1979.<sup>45</sup> In July an Amarillo magazine took on an even more critical tone. *Accent West* writer Carroll Wilson interviewed activists Harriet Martin and Betty Wheeler as they organized an advocacy group, PEAC, aimed at getting answers from Pantex. This group subsequently sued and in a settlement forced Pantex to produce improved environmental impact statements.<sup>46</sup> The magazine referenced the same 1976 environmental assessment as the newspaper article, but at far more length: Wilson described the concrete pits and earthen trenches holding uranium and plutonium wastes. The writer recounted the revelation that some chemical wastes and solvents "simply flow into a playa lake on Pantex

property."<sup>47</sup> PEAC's Wheeler and Martin complained that Pantex had too long been trusted to monitor and police its own environmental record. The activists described what citizens around Rocky Flats, Colorado, did in the face of contamination there. Both articles reflected the growing awareness of the significance of Pantex following the 1977 disclosures of the plant's role in the nuclear complex, and demonstrated the growing environmental consciousness of the 1970s.

While the emergence of environmental consciousness led to important criticism of Pantex, the nuclear disarmament movement brought the plant to another level of notoriety. Increasingly troubled by the moral implications of the arms race, Amarillo Catholic Bishop Leroy T. Matthiesen published a call to conscience in 1981 in his diocesan newspaper, *West Texas Catholic*. "We urge individuals involved in the production and stockpiling of nuclear bombs to consider what they are doing," he wrote, "to resign from such activities, and to seek employment in peaceful pursuits." He offered the church's financial support and career-counseling services to employees of Pantex who would resign on moral grounds. In his memoir, Matthiesen describes the response: "The morning paper read, 'Bishop Decries Arms Race.' There was no outcry. The evening paper, however, carried a different headline. It read, 'Bishop Urges Pantex Workers to Resign.'" The second headline brought the public response and media attention the bishop sought. Soon the national media picked up the church's stand against mutually assured destruction.<sup>48</sup>

Local reaction to Matthiesen was generally hostile, but an audience of 200 students and faculty at West Texas State University (now West Texas A&M University) in Canyon gave him a standing ovation. This talk, "I Didn't Know the Gun Was Loaded," became Matthiesen's signature address, which he delivered again at the Riverside Church in Brooklyn, New York. The speech began,

Grace and peace to you from the Lone Star State, from the High Plains of Texas, where the buffalo roam no more, where a few deer and antelope still play, but in hiding from the hunters among the breaks of the Canadian River; where often now are heard discouraging words about inflation, the rapidly receding waters of the Ogallala Aquifer, and the low price of wheat and cattle (though not of oil), and where those who know shudder to see the specter of a monstrous mushroom cloud rising over Pantex, the final assembly plant for all the nuclear warheads produced in the United States, fifteen miles from where I lived for the past thirty-three years.<sup>49</sup>

<sup>47</sup> Carroll Wilson, "Pantex: Where They Build (and Store) Things that Go Bump in the Night!" *Accent West*, July 1979, 42, 43 (quotation).

<sup>48</sup> Matthiesen, *Wise and Otherwise*, 140 (quotation), 141.

<sup>49</sup> *Ibid.*, 142–143.

<sup>41</sup> *Ibid.*

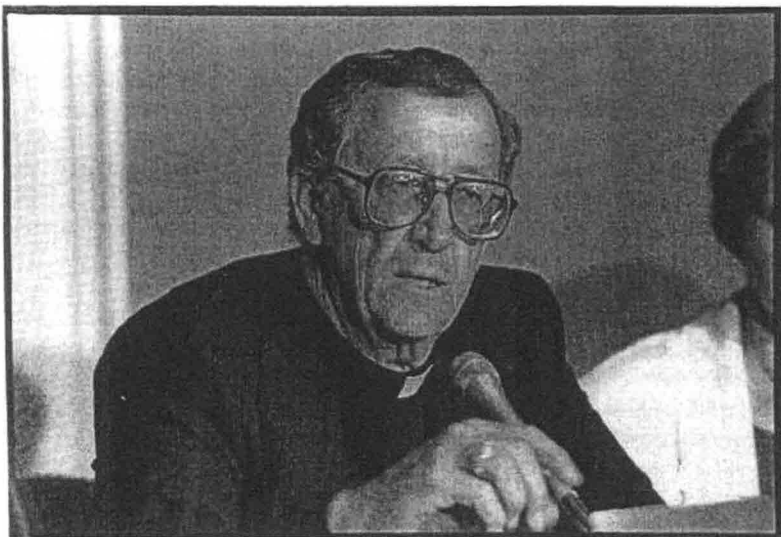
<sup>42</sup> *Ibid.*

<sup>43</sup> *Ibid.*

<sup>44</sup> Scott C. Zeman and Michael A. Amundson (eds.), *Atomic Culture: How We Learned to Stop Worrying and Love the Bomb* (Boulder: University Press of Colorado, 2004), 4–5.

<sup>45</sup> Jim Redden, "N-garbage buried at Pantex," *Amarillo Sunday News-Globe*, Mar. 4, 1979.

<sup>46</sup> *Panhandle Environmental Awareness Committee*, an unincorporated association; Scott Andress; Harriet Martin; Carroll Wilson; and Tom Glover, *Plaintiffs v. United States Department of Energy; Charles Duncan (Secretary DOE); Paul R. Wagner (Area Manager, Amarillo Area Office, United States Department of Energy), Defendants, uncataloged Peace Farm materials* (Southwest Collection/Special Collections Library, Texas Tech University, Lubbock, Texas).



Bishop Matthiasen, 1982. Courtesy of Amarillo Diocese.

Kenneth Briggs of *The New York Times* led a charge of national and international media, print and broadcast. *60 Minutes* ran a segment called "The Bishop and the Bombs" on August 8, 1983; Ed Bradley introduced Matthiasen as the man "denounced in the local press as a traitor and offered a one-way ticket to Moscow." He positioned the bishop as representing a minority view in Amarillo, both as anti-Pantex and as Catholic. Baptist Minister Alan Ford offered Bradley the majority Protestant and the pro-Pantex view. Indeed, Ford held a "Pantex Appreciation Day" in his church, footage of which was shown in the segment. Pantex employees, interviewed in the park at a softball game replete with Southwest Baptist Church team uniforms, defended their role as Pantex employees, good Christians, and Cold Warriors. Opposing these employees was Eloy Ramos, who answered Matthiasen's call and resigned from Pantex, who said he viewed his coworkers at Pantex as good people but explained his decision to quit as an act of conscience. The *60 Minutes* story was huge. Never before had Amarillo seen itself featured in such a prominent media source.

While Matthiasen brought major media attention and spurred anti-nuclear activism in and outside the church, the criticism had little effect on Pantex—only Ramos resigned. Conversely, the bishop's act backfired against Catholics and the needy in the community. Matthiasen arranged for himself, two Methodist ministers, and a rabbi to administer a job-coun-



Bishop Matthiasen leading a prayer vigil outside of the Pantex Plant. Photo published in *Amarillo Sunday News-Globe*, February 24, 1985. Courtesy Amarillo Diocese.

Common occurrence . . . Roman Catholic Bishop L.T. Matthiasen leads a prayer vigil near the entrance gate to the Pantex Plant in 1983. (Staff photo)  
*Amarillo Sunday News-Globe* 2-24-85

seling fund of \$20,000 in donations, with Catholic Family Services (CFS) providing counseling. CFS depended on funds from the United Way, however, and Pantex was the biggest donor to the United Way in the region. In retaliation for Matthiasen's criticism, Pantex employees threatened to withhold their United Way donations, and even after Matthiasen withdrew the church from the counseling role, the United Way dropped CFS from its list of supported charities. The rabbi and one of the Methodist ministers lost their jobs.<sup>50</sup>

Matthiesen's activism also inspired an unlikely exposé of Pantex and the Texas Panhandle. New York writer A. G. Mojtabei was in the audience when Bishop Matthiasen spoke at the Riverside Church in Brooklyn. His plea moved Mojtabei to investigate Pantex and Amarillo. The resulting book, *Blessed Assurance: At Home with the Bomb in Amarillo, Texas*, was published by Houghton Mifflin in 1986. It was listed as a notable book of that year by the *New York Times* and was favorably reviewed in the *Amarillo Sunday News-Globe*, the *New York Times Book Review*, the *Bulletin of Atomic Scientists*, and other significant publications.

<sup>50</sup> Ibid., 146–148.

Mojtabai pointed to the Texas Panhandle's frontier heritage and pro-business attitude to explain local acceptance of Pantex. However, her primary argument was that Amarillo residents' accommodating attitudes came ultimately from a strong millennial Christian fundamentalism. Drawing on extensive interviews with local ministers, Mojtabai was fascinated by the dual and paradoxical view of Amarilloans as both "steady growth" economic optimists and "end times" fundamentalists. Pantex supported both views at once. An important aspect of Amarillo's accommodation of Pantex, she argued, was that the plant fit the narrative of rapture upon which fundamentalists draw. *Blessed Assurance* remains the only book-length study of Pantex and the most trenchant analysis of the multiple ways in which Amarillo was both "host and hostage" to Pantex.<sup>51</sup>

Anti-nuke rumblings were already afoot when Matthiesen made his stand against Pantex on moral grounds in 1981. Two local matters only indirectly related to Pantex helped to drive regional anti-Pantex protest. One concerned the proposed MX program coming to eastern New Mexico and the Texas Panhandle in 1980. The other, soon after, was the consideration of sites in Deaf Smith County, near Hereford, and Swisher County, near Tulia, for a federal nuclear waste repository.<sup>52</sup> The MX concerns went by the wayside as this federal program seemed unlikely to find funding. Opposition to the nuclear waste dump led to the 1983 formation of Serious Texans Against Nuclear Dumping (STAND) in Tulia. STAND outlived the nuclear dump proposal and became a significant activist voice in Amarillo, acting as a watchdog group for environmental standards at Pantex. This activity was consistent with those at other nuclear complex sites during the 1980s, when, as Findlay and Hevly note of Hanford, anti-nuclear movements and government disclosures led to heightened consciousness.<sup>53</sup>

STAND worked to inform the public about Pantex's environmental hazards through the press, issuing releases and granting interviews. In addition to hosting public events and speakers, STAND published a newsletter, *STANDpoint Quarterly*, which covered environmental issues that included Pantex. Most significantly, as the years went on, STAND became adept at winning government grants to do scientific studies. These grants produced scientific reports that raised technical questions about Pantex operations. STAND criticized Pantex and DOE on an expert basis, thus appropriating official control of scientific expertise.

One important example was "A Citizen's Guide to the Baseline Risk Assessment for the U.S. Department of Energy Pantex Plant," prepared

for STAND by Todd Martin and published in 2002.<sup>54</sup> An EPA Technical Assistance Grant paid for this report as well as the hiring of Martin as a DOE consultant. Another report was published in 2004, "Contaminants in the Ogallala Aquifer at the Pantex Plant," by George Rice (consultant hydrologist) and Pam Allison (an Amarillo scientist and activist long involved with STAND).<sup>55</sup> Through such documents, STAND presented the public with technical but clearly written information about the Pantex environmental record. While multiple state and federal entities oversaw the plant, STAND was an important local and nongovernmental activist voice.<sup>56</sup>

After STAND, the Peace Farm was founded in 1986 as a strategically located activist site on land just across Highway 60 from Pantex. Leslie (Les) and Cindy Breeding purchased the 20 acres and made Peace Farm their home. The group and its headquarters became an area landmark for the values of disarmament and peace and acted as a witness to Pantex. For a period of time, activists posted at the Peace Farm watched for the special trains bearing nuclear armaments to leave the plant; a nationwide network of activists known as the "Tracks Campaign" responded to the Peace Farm alerts by deploying protesters along routes the weaponry took to sites around the country. Between 1983 and 1994 the Peace Farm helped to host annual events on the anniversary of the Hiroshima and Nagasaki bombings called Pantex Pilgrimages, organized by the Red River Alliance, a group with participants from Texas, New Mexico, and Oklahoma. The well-attended 1985 Pilgrimage published programs for the events included songs, prayers, safety rules for those camped and participating, and a schedule of events including lectures, workshops, and silent observances. Marches on the Pantex gate typically involved blocking the road in acts of civil disobedience leading to arrest as activists presented banners to Pantex employees coming or going. For years, the Peace Farm newsletter, written largely by long-time resident and leader Mavis Belisle, called attention to weekly protests at the gate. More recently activity at the site dwindled, and in 2009, the Peace Farm sold all but one acre of land, feeling that its physical presence and infrastructure were no longer needed.<sup>57</sup>

The efforts of Bishop Matthiesen, A. G. Mojtabai, STAND, and the Peace Farm brought Pantex to national public attention, largely by link-

<sup>54</sup> Todd Martin, *A Citizen's Guide to the Baseline Risk Assessment for the U.S. Department of Energy Pantex Plant* (Amarillo: STAND, 2002).

<sup>55</sup> George Rice and Pam Allison, *Contaminants in the Ogallala Aquifer at the Pantex Plant* (Amarillo: STAND, 2004).

<sup>56</sup> Pamela Allison to Alex Hunt, Apr. 11, 2009, interview (discs in possession of author).

<sup>57</sup> Jerry Stein, June 1, 2011, interview; uncataloged Peace Farm materials, Southwest Collection, Texas Tech University.

<sup>51</sup> Mojtabai, *Blessed Assurance*, p. x.

<sup>52</sup> Carlson, *Amarillo*, 208–211.

<sup>53</sup> Findlay and Hevly, *Atomic Frontier Days*, 5.



ing little-known Pantex to the national nuclear complex and the larger anti-nuclear activist community. Locally, though, economic factors overrode safety or moral concerns. People closed ranks around Pantex against local grass-roots protestors and national media attention. Similarly, Santa Fe activists were often rejected by Los Alamos locals because the "foreigners" did not understand their economic needs.<sup>58</sup> Although communities wanted their voices heard, the presence of national attention drew concern that local needs, such as jobs and federal funds, would be ignored.

As the Cold War waned, the Amarillo papers' business pages read like editorials. In a 1988 article, Danny Boyd reported that Pantex employed 2,827 people; the year's payroll was \$99.2 million; \$39.7 million was funneled into the local economy for equipment, maintenance, and utilities; another \$10.9 million was spent on construction projects; and the DOE projected \$419 million would go to new construction at Pantex between 1979 and 1993. Discussing the plant's prospects in light of global politics and arms treaties, Boyd reported annual production of 1,200 to 1,500 nuclear weapons, with about the same number disassembled each year—all work for Pantex, all work for Amarillo and the Panhandle.<sup>59</sup>

The end of the Cold War and the subsequent redefinition of the plant's mission made Pantex a subject of intense local debate. And once again, Panhandle residents responded to economic considerations more than moral or environmental concerns.<sup>60</sup> With the end of the Cold War came a reduction in nuclear arsenals, and the focus at Pantex became disassembly of nuclear weapons. It seemed that in the foreseeable future Pantex would put itself out of work as the DOE streamlined its weapons program—disassembly could last only so long—and refitting and maintaining the arsenal could go to another DOE facility. Thus in the 1990s the cost-benefit analysis of Pantex changed: critics found themselves accounting for new concerns over the moral and environmental implications of the plant, while uncertainty grew over Pantex's function in the nation's military-industrial complex. Supporters responded by aggressively promoting the plant's positive attributes. Opposing activists just as stridently opposed expanded operations at Pantex on safety, security, environmental, and moral grounds. Coincidentally at this time Colorado's Rocky Flats plant closed in the midst of a major environmental mess—plutonium contamination. As a result, Pantex, which formerly sent warheads of dismantled weapons to Rocky Flats or Y-12, began in 1989 storing plutonium pits.<sup>61</sup> Amarilloans responded with both strong support and loud resistance to

this new phase of Pantex's operation, the indefinite "interim" storage of plutonium pits, radioactive cores from decommissioned nuclear weapons.

In 1991 a Pantex booster association lobbied to bring processes from Rocky Flats, notably the manufacture of plutonium triggers, to the high plains of Texas. "Panhandle 2000," formed in 1989, was led by bipartisan co-chairs Wales Madden Jr. (Republican) and Jerry Johnson (Democrat), worked in concert with Amarillo's Economic Development Corporation, and—amazingly—funded by a half percent of the city's sales tax. Through Panhandle 2000, Madden, Johnson, and the city promoted Pantex as the best DOE site for new work in processing plutonium. However, the DOE's needs shifted to disassembly and storage of plutonium pits from those disassembled weapons. Madden and Johnson pushed Pantex as a site for long-term storage, which would involve plutonium reprocessing. The vision shifted to finding peaceful new uses for reprocessed plutonium from bombs dismantled at Pantex.<sup>62</sup> Meanwhile, plutonium pits continued in uncertain, no-end-in-sight, "interim" storage at Pantex. In 1996 the DOE announced a plan to increase the number of pits in storage to 20,000; in 2004 Pantex reported it held more than 12,000 pits in storage and had repackaged 10,000 of them in storage containers.<sup>63</sup>

Madden and Johnson's Panhandle 2000 proposal to DOE asserted the availability of land and groundwater rights around the current site for expansion. This announcement led directly to the 1991 formation of Panhandle Area Neighbors and Landowners (PANAL), which teamed up with STAND and other activist organizations. Co-chaired by Doris and Phillip Smith, PANAL marked the first organized resistance against Pantex by area farmers, a conservative and patriotic—and traditionally non-activist—constituency in rural Texas. And cooperation among activists brought more accountability to Pantex after the Cold War.<sup>64</sup> New appreciation of potential threats Pantex posed to environmental and human health spurred ongoing local activism. Differing concerns of disarmament and peace, landowner rights, and environmentalism motivated opponent groups, but they generally shared the conviction that Pantex failed to police itself and must be held to account by citizens.

Part of what fueled activists was the great deal of information about the military-industrial complex that became public in the early 1990s. Along with other sites, Pantex came under new scrutiny. Environmental Protection Agency (EPA) inspections revealed significant contamination at Pantex, enough for Superfund status in 1991. This EPA disclosure formed

<sup>58</sup> Masco, *Nuclear Borderlands*, 191–193.

<sup>59</sup> Danny Boyd, "Pantex Vital Part of Economy," *Amarillo Daily-News*, Nov. 1, 1988.

<sup>60</sup> Ackland, *Making a Real Killing*, 215–216.

<sup>61</sup> Stephen I. Schwartz (ed.), *Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons since 1940* (Washington, D.C.: Brookings Institution, 1998), 52.

<sup>62</sup> Gary Cartwright, "Disarmed and Dangerous," *Texas Monthly*, November 1994, 104.

<sup>63</sup> Jim McBride, "Pantex Hits the Pits in Repackaging," *Amarillo Globe-News*, July 9, 2004.

<sup>64</sup> Cartwright, "Disarmed and Dangerous," 140–142.

an important backdrop to the Panhandle 2000 vs. PANAL controversy. In 1994 *Texas Monthly* weighed in on the situation:

In July 1991, the EPA did its first serious investigation of Pantex. The place was a mess, toxic substances such as arsenic, lead, mercury, and barium were found in ditches and shallow ponds where treated wastewater had been discharged. Depleted uranium was found near the zone five testing grounds. The DOE identified 144 sites of suspected contamination, more than enough for the EPA to nominate Pantex for its Superfund list, a dreaded designation reserved for the nation's worst environmental offenders.

Even after its nomination to the Superfund list, Pantex apparently continued to disregard safety and environmental standards. By the spring of 1994, however, officials at Pantex realized that it was time to pay the piper. With the EPA and the bashers breathing down their neck—and a congressional oversight committee warning of mounting safety concerns—the DOE's private contractor, Mason and Hanger-Silas Mason, suspended normal operations in April for what it called 'a maintenance mode.' But the plant remained closed for three months, the longest shutdown in its history. And while it was shut down, the EPA finally issued its determination—guilty as charged.<sup>65</sup>

At about the same time, in 1994, Bill White, then second in command at the DOE, came to Amarillo. Heavily courted by the Panhandle 2000 boosters, White dismayed the Pantex faithful with harshly critical remarks on DOE's safety record and the excessive size of the nuclear arsenal. Madden and Johnson's hopes to process plutonium at Pantex fell by the wayside, though they did win the Amarillo National Resource Center for Plutonium. The center was comprised of a consortium of researchers between Texas universities with a goal of finding uses for surplus plutonium.<sup>66</sup>

The proposal to store and possibly reprocess plutonium at Pantex led filmmaker and Amarillo-native George Ratliff to document the surrounding hoopla in *Plutonium Circus*, released in 1995. With neither narration nor overt slant, Ratliff featured true eccentrics and a generally ironic sense of Amarilloans, who related—often badly—their feelings for Pantex. A primary proponent was Kevin Knapp, public relations man at Pantex and Amarillo City Commissioner, while Stanley Marsh 3 of Cadillac Ranch fame was prominent among the detractors. The film stands as an important document of an important chapter in the ambivalent history of relations between plant and host community.

Not until 1998 did Energy Secretary Bill Richardson put the final dagger in Johnson and Madden's Panhandle 2000 vision, awarding the pit disassembly and conversion work to DOE's Savannah River plant in South

<sup>65</sup> Cartwright, "Disarmed and Dangerous," 141.

<sup>66</sup> Cartwright, "Disarmed and Dangerous," 108.

Carolina, a site with extensive background in processing plutonium. Pantex boosters decried the decision as wrong-headed and political. "We just got caught up in impeachment politics," Johnson remarked, noting that South Carolina elected a Democratic governor and kept a Democratic senator under the Clinton administration. Johnson added that "this is the second time in my life that Amarillo has been punished for its political views," the first being the federal government's closure of the Amarillo Air Force Base in 1964.<sup>67</sup>

In the midst of this controversy, the Texas Department of Health found an above-average rate of cancer in three counties surrounding Pantex from 1981 to 1992—sixty-four cases of chronic lymphocytic leukemia in Potter and Randall Counties while the statistical model predicted thirty-three. In Pantex's Carson County death from leukemia was twice the state rate. Brain cancer deaths were slightly higher in the three counties. More men died from thyroid cancer in Carson County and more women in Potter County than on average in the state. While the report called for further study, particularly on leukemia, a Texas health official said the general level of cancer is not high in the area, remarking that "overall we just don't see a problem."<sup>68</sup> Pantex's DOE spokesman, Tom Walton, denied responsibility for the elevated risk of dying from cancer around the plant.<sup>69</sup>

In the spirit of Bill White's criticisms of the weapons complex, this period saw more openness between the DOE and Pantex's workers and neighbors. The public had learned to question the plant's safety and environmental impact. In 1999 DOE acknowledged the ill health of employees at Pantex and other sites. In late June the next year the DOE held a public meeting in downtown Amarillo on a workers' compensation initiative. After remarks from Pantex manager Dan Glen and others, David Michaels spoke as assistant secretary for environment, safety, and health at DOE. Michaels's remarks included an anecdote about his travels on behalf of Bill Richardson to Amarillo and Oak Ridge to acknowledge that the DOE "made people sick in the nuclear weapons complex" and that it was time "to stop denying claims . . . and start helping workers."<sup>70</sup>

Hours of testimony included heart-wrenching attempts by employees, former employees, and family members to accept that Pantex might have caused their illnesses, in some cases to reconcile patriotic dedication to

<sup>67</sup> "Pantex Supporters Disappointed," *Amarillo Globe-News*, Dec. 23, 1998, <[http://amarillo.com/stories/1998/12/23/new\\_pantexpm.shtml](http://amarillo.com/stories/1998/12/23/new_pantexpm.shtml)> [Accessed Jan. 6, 2015].

<sup>68</sup> Hollace Weiner, "Leukemia Higher Near Pantex," *Fort Worth Star-Telegram*, Aug. 5, 1994.

<sup>69</sup> "Cancer Deaths Reported High near Pantex," *Dallas Morning News*, June 13, 1994.

<sup>70</sup> U.S. Department of Energy, Workers' Compensation Initiative, public meeting, Civic Center Grand Plaza, Amarillo, Texas, June 29, 2000, transcripts at [http://defendingscience.org/sites/default/files/upload/Hearing\\_Pantex.pdf](http://defendingscience.org/sites/default/files/upload/Hearing_Pantex.pdf) [Accessed Jan. 7, 2015].

Pantex's mission with fears that mission had something to do with the catalog of medical conditions and illnesses they delivered to the officials, as well as the various potential causes of the illnesses. The primary concern at Pantex was beryllium poisoning, which recently Pantex and DOE had acknowledged affected worker health. But there was great uncertainty and frustration about how these things might be connected and what was to be done about it—for the living as well as for deceased. A Ms. Brown testified, in part,

One of the things that probably angered me most in dealing with anybody from Pantex is, well, what chemical are you talking about that caused your husband's cancer? Is that my job? You're putting me on the defense. You're a government agency. You know what you've done. You know what has been poured out there. I'm not saying it was done in malice. But now the beryllium stuff's coming out. I know Hank was probably around it. How do I prove it? I can't. This was a 56 year-old man that was extremely, extremely athletic. . . . Seven months later, he's dead. And the thing that they told me here, we've never seen cancer that goes this quick; we don't understand it. Of course, we also were living right there. We were also drinking the water. We live a mile from the plant.<sup>71</sup>

As much as Dr. Michaels was sympathetic and seemingly sincere in his responses to the people who came forth, assuring them of ongoing medical care and advising them to call a special hotline, his answers to many concerns boiled down to admissions that the DOE needed further information and study to deal with problems.<sup>72</sup>

Another sign of the increased scrutiny of Pantex was the formation of the Pantex Plant Citizen's Advisory Board in 1994. PPCAB followed an organizing model employed at other nuclear sites, such as Hanford and Oak Ridge, meant to bring together members of the public from opposing perspectives. By agreeing on the basic facts of the issues most relevant to Pantex's operations before controversy exploded, the logic ran, the PPCAB could make meaningful recommendations that addressed public concerns. The board undertook a citizen's survey in 1999 that represented people living within five miles of the plant. Interestingly, the study offered no conclusions; the simple survey was meant to document attitudes for the benefit of the board. Among the responses, a cadre of landowners was sharply critical of Pantex, while many other neighbors responded as ambivalent, generally supportive, or neutral. The survey makes clear the diverse, even contradictory, views Panhandle residents had of the plant.

<sup>71</sup> Ibid.

<sup>72</sup> It is worth mentioning that the *Amarillo Globe-News* published a three-part expose on Pantex worker health by Jim McBride: "Cold War Casualties: Waiting for Word," Oct. 3, 2004; "Remembering a Life: Cancer Strikes Husband, Father," Oct. 4, 2004; and "One Family's Heartache," Oct. 5, 2004. These articles are primarily comprised of outtakes from the June 29, 2000, public hearings in Amarillo.

Their biggest concerns regarding Pantex were public safety and especially groundwater contamination.<sup>73</sup>

The DOE disbanded PPCAB in 2001 for reasons difficult to untangle. Blame spread to all players. Pantex's part in clarifying PPCAB's role was either Machiavellian or just poorly administered, depending on the account. Some felt that the PPCAB was ultimately little more than a DOE puppet. Amarillo newspaper editorials decried the board's closure, claiming any such group was better than none at all.<sup>74</sup> The groups who supported and opposed Pantex, essentially business lobbyists on one hand and environmental and peace activists on the other, failed to overcome mutual distrust. The board operated by a caucus structure, which pitted boosters vs. bashers, and demanded a unanimous vote for recommendations made to Pantex.<sup>75</sup> According to James Hallmark, the board facilitator hired by Pantex, the two camps tried to thwart one another more often than work together on meaningful compromise. Hallmark spent most of his five-year term on procedural matters, meeting participants and learning about their roles—a process, it would seem, not effectively defined or clarified by Pantex leadership. Hallmark did, however, credit the board with drawing attention to the issue of groundwater contamination.<sup>76</sup>

Groundwater contamination probably will prove the most serious issue of Pantex's history. While fear and rumor swirled for years around local groundwater quality, not until 2000 did Pantex's contamination of local aquifers become public. The plant's location on the high plains put it immediately atop a small "perched" aquifer that trickled into the much larger Ogallala Aquifer below. By the mid-twentieth century, irrigated water from the Ogallala became a necessity in the lives of area farmers and ranchers, and dependence on Ogallala groundwater became the reality for the region's cities and towns. World War II-era wastes contaminated the perched aquifer below Pantex and made their way into the Ogallala through previously unknown connections between the aquifers. Groundwater contaminants included chemical explosives like TNT and DMX; solvents including acetone, toluene, and trichloroethylene; and heavy metals (chromium).

In 1990 plant manager C. D. Alley claimed tests showed no contamination of groundwater:

We, like the city of Amarillo, and many of our immediate neighbors, have deep wells and use water from the Ogallala Aquifer. We have monitored the water from

<sup>73</sup> Pantex Plant Citizens' Advisory survey of citizens living near the Pantex Plant, Sept. 1, 2000 (copy in author's possession).

<sup>74</sup> "End of Pantex Board is Setback," *Amarillo Globe-News*, Nov. 23, 2001.

<sup>75</sup> Jim McBride, "Infighting Hurt Pantex Board, Members Say," *Amarillo Globe-News*, Nov. 25, 2001.

<sup>76</sup> James Hallmark, "Opinion: DOE Needed to Shut Down the Board," *Amarillo Globe-News*, Dec. 10, 2001; James Hallmark to Alex Hunt, 2006, e-mail (printed copy in possession of the author).

this source for many years. There is not now, nor has there ever been, any Pantex Plant generated contaminants found in the samples. The City of Amarillo's regular testing confirms the purity of the water. The Plant works very closely with the Texas Water Commission on the factors that may affect groundwater. All of these results are public knowledge and there has been no immediate threat to the aquifer.<sup>77</sup>

Yet contaminants seeped into the perched aquifer and then to the Ogallala all along. A 1988 story in the *Amarillo Daily News* cited an unreleased 1985 DOE study that named Pantex as a site in need of groundwater contamination cleanup, but the story contained little specific information.<sup>78</sup>

Beginning in 1999, news came out that Pantex had found contaminants—high explosives, solvents, and chromium—in the perched aquifer. Some 100 to 3,000 feet of clay and siltstone separated the perched aquifer from the Ogallala, and at the time it was thought unconnected to the Ogallala. Unfailingly, the threat was portrayed as confined in the perched. News stories from 1999 routinely clarified that contaminants were found “in an aquifer that sits above and is separated from the Ogallala aquifer.”<sup>79</sup> A July 1999 Amarillo newspaper story reiterated that the “perched ground-water zone, a water-bearing layer” was “separated from the Ogallala Aquifer by a layer of silts and clays.”<sup>80</sup> However, Pantex had already discovered the solvent trichloroethylene (TCE) in the Ogallala Aquifer through routine monitoring of test wells in June, September, and November 1999.<sup>81</sup>

The public learned of the Ogallala contamination only after the DOE, under Energy Secretary Bill Richardson, issued a report that criticized Pantex for failing timely disclosure of discovery of contamination and for inadequate groundwater monitoring at the site. The DOE concluded “the data was not reported properly until Mar. 1, 2000, during a review of the Annual Site-Wide Environmental Report.” Richardson stated, “I am concerned about the discovery of trichloroethylene in the Ogallala Aquifer, as well as the delay in reporting the information. I want to make sure that this problem is dealt with quickly, honestly, and effectively.”<sup>82</sup>

A STAND report published in 2001 by hydrologist George Rice drew a number of conclusions, including that the DOE simply knew little about groundwater dynamics and the extent of contamination in either the perched aquifer or the Ogallala. The report was important because it criticized DOE's questionable scientific method, including its use of estimated groundwater background composition levels and questionable groundwater movement modeling, both of which show a lack of data. It also found that “On numerous occasions between 1992 and 1999 DOE failed to notify the public or regulatory agencies that it had found concentrations of contaminants in the Ogallala Aquifer above MCLs [Maximum Contaminant Limit].”<sup>83</sup>

To clean up the perched aquifer and prevent further contamination of the Ogallala, Pantex expanded a “pump-and-treat” method of decontaminating perched aquifer water already in place. This method entails pumping up the water, filtering it, and re-injecting it into the aquifer. In 2004, Pantex reported that it was expanding the “pump-and-treat” system to remove high explosive contaminants found “seeping off the southeast side of Pantex” under private properties.<sup>84</sup> In 2006, the *Amarillo Globe-News* reported that Pantex was meeting with farmers around the plant to inform them of their intention to purchase three sections of land to facilitate further “pump and treat” projects, further indicating the spread of contamination. From 1995 to 2006, the newspaper reported, Pantex “has treated 480 million gallons of contaminated groundwater, and removed 4,884 pounds of high explosives and 220 pounds of chromium from the perched aquifer.” The story details landowners concerns, including remarks from Marta Brown, who drinks well water from under her land. Pantex had supplied her with a filtration system but had stopped purchasing replacement filters, which must be changed every three to four months: “When they first put it in, they took all the care of it. They stopped. It's about \$100 to change out the filters.”<sup>85</sup> Reading the various reports and stories closely, it seems that Pantex must have known about perched aquifer contaminants well before 1999.

In 2009 the EPA placed Pantex on a list of sites that met “the construction completion milestone,” with soil and groundwater-cleaning devices in place. These efforts cost more than \$120 million, and included 113 pump-and-treat wells to the perched aquifer and 30 monitoring wells on the Ogallala. In addition to high explosives and solvents, the heavy metal

<sup>77</sup> Sharon Stewart, *Toxic Tour of Texas* (photographic project), 1990, uncatalogued Peace Farm materials, Southwest Collection, Texas Tech University.

<sup>78</sup> Jim H. Sorrells Jr., “Pantex cited by DOE as needing groundwater contamination cleanup,” *Amarillo Daily News*, Dec. 6, 1988.

<sup>79</sup> Greg Rohloff, “TNRCC Says Agency Perhaps Better Equipped for some Pantex Cleanup,” *Amarillo Globe-News*, May 21, 1999, [http://amarillo.com/stories/1999/05/21/new\\_145-6355.001.shtml](http://amarillo.com/stories/1999/05/21/new_145-6355.001.shtml) [Accessed Jan. 6, 2015].

<sup>80</sup> Jim McBride, “State Sets Meeting Over Pantex Search for Tainted Water,” *Amarillo Globe-News*, July 25, 1999, [http://amarillo.com/stories/1999/07/25/new\\_pantex.shtml](http://amarillo.com/stories/1999/07/25/new_pantex.shtml) [Accessed Jan. 6, 2015].

<sup>81</sup> “Steps Taken to Address Pantex Plant Groundwater Problems,” *EHS Today*, Mar. 9, 2000.

<sup>82</sup> *Ibid.*

<sup>83</sup> George Rice, “Evaluation of Groundwater Characterization and Modeling at the Pantex Plant” (Amarillo: STAND, June 2001).

<sup>84</sup> Jim McBride, “Pantex Officials to Expand Groundwater Treatment System,” *Amarillo Globe-News*, Nov. 6, 2001.

<sup>85</sup> Jim McBride, “Pantex Eyes Possible Land Buyout,” *Amarillo Globe-News*, Aug. 25, 2006.



chromium was found in the perched aquifer. Although "traces of contamination" were found in the Ogallala, officials at Pantex and the EPA claimed "they haven't seen a trend of further Ogallala contamination in repeated groundwater samplings."<sup>86</sup> The fact remained, however, a water-well field that provided more than a third of Amarillo's drinking water was located only four miles north of the plant.

As of July 2011, the pumping-and-treatment stations and bioremediation zones operated with apparent success. Since September 2008, "Playa 1 Pump & Treat System" had processed in excess of 164 million gallons of perched groundwater, and another station "extracted and treated" more than 891 million gallons since 1995, when the treatability pilot study began.<sup>87</sup> Sixteen contaminants turned up in the groundwater at "concentrations exceeding drinking water standards," including explosives (TNT, RDX), solvents (toluene, acetone, TCE), and heavy metals (hexavalent chromium and chromium). "Principal pollutants for soils include RDX, TNT, HMX, and depleted uranium," according to the EPA. "Radiological impacts were confined to soils, at levels generally below risk-based levels (i.e. Site Relevant Contaminants Th-232, U-234, U-238, U-235, Pu-239)."<sup>88</sup> Since contaminants have long concentrated in the soil and runoff water at the plant, radioactive waste—presumably continuing to make its way toward the perched aquifer—remains a frightening specter.

The case of Pantex and its neighbors is instructive. While Amarillo civic leaders and businessmen championed Pantex as a crucial economic presence in the Panhandle, the general attitude of those living in the rural, agricultural communities around the plant has become one of distrust and bitterness. Public visibility and debate increased at Pantex in the absence of Cold War imperatives, with new knowledge of the safety and environmental impact of the plant, and particularly amid revelations of groundwater contamination. That people became better informed and thus able to ask questions beyond the plant's economic role is a positive development because the future role of Pantex has massive implications for the region. If Pantex took on the role of increased plutonium reprocessing, as some boosters desire, it would constitute a further move toward military-industrial economies that would come at the expense of agricultural interests already under threat by declining water tables in the Ogallala Aquifer. The region cannot ultimately be epicenter both of the nation's beef production and its plutonium experimentation. If Pantex's role diminishes and the DOE ultimately closes shop, however, its economic absence would

be similarly dramatic, becoming arguably a decisive chapter in a continuing story of Great Plains regional decline. While Pantex remains indisputably "good business" in its employment numbers, its broader economic impact, and its philanthropic contributions, the ultimate cost of Pantex's legacy remains to be reckoned.

<sup>86</sup> Jim McBride, "Pantex Works to Clean Contamination," *Amarillo Globe-News*, Aug. 25, 2009.

<sup>87</sup> Camille Hueni, "Pantex Plant (USDOE)," EPA Region 6 Report, updated September 2014, 1–2. <<http://www.epa.gov/region6/6sf/pdffiles/o6o4o6o.pdf>> [Accessed Jan. 5, 2014].

<sup>88</sup> Ibid., 5.

# Southwestern

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