ARKANSAS ORDINANCE PLANTS DURING WW2



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THE STORY OF THE BUNKERS IN MAUMELLE, ARKANSAS





During World War II, Arkansas was home to six ordnance plants. The sites were located near <u>Jacksonville</u> (Pulaski County), <u>Marche</u> (Pulaski County), <u>Hope</u> (Hempstead County), El Dorado (Union County), <u>Pine</u> <u>Bluff</u> (Jefferson County), and <u>Camden</u> (Ouachita County). The uses for the locations included the manufacture of detonators, fuses, primers, and bombs; proving grounds for testing munitions; rocket loading, testing, and storage; and producing chemical agents needed in bombs and explosives. Four of the plants were government-owned and contractor-operated (GOCO). These plants were overseen by a military staff, but a private corporation had the contract to operate the plants. The Southwestern Proving Ground and the Pine Bluff Arsenal were government-owned and operated. All the plants depended heavily on civilian workers for their main workforce. The wartime industries brought needed money and jobs for Arkansas citizens and contributed greatly to the economy of Arkansas. <u>After the war, the state never returned to the heavy agricultural-based economy that had been present before World War II, developing instead a more industrialized economy.</u>

Arkansas business and political leaders lobbied for the plants and pointed out the advantages of locating plants in Arkansas. Arkansas had unlimited supplies of natural gas and coal. Arkansas offered strategic locations away from the coastal areas of the United States where the government felt the plants were safer from foreign attack and away from large population centers but with a large available labor force. The actual plant covered 7,000 acres with the fear that if one area blew, the whole area would go.

With the able-bodied men needed for military service, the job of manning the defense plants fell to people who had never been in the labor force before or who had been employed in low-paying work. Handicapped people, women (many who were housewives and had never worked outside the home), young people, older adults, and African Americans were sought for employment. Boys and girls as young as fourteen and fifteen were hired for work. These young people changed their papers or lied about their age, and the need for workers was so great that the employment officials did not check up on their ages. African Americans were encouraged to apply, and as segregation was still practiced in Arkansas at this time, separate areas of the employment facilities were set aside for the African Americans who came to apply for work.

The ordnance sites shared many of the same features. First, the land areas for the plants were surveyed and <u>taken over by the United States government by condemnation proceedings.</u> This action displaced the people living in those land areas, and the people had to move out in a short period. Housing shortages developed in many areas as workers from all over the state and even out of state came to work on the construction phases of the plants. Local people were given preference.

Trailer camps developed, and area residents rented out about anything they had.

All but one of the plants built housing for their top military personnel, and in the case of the contractor-operated plants, housing was provided for top operating officials. During the operating phase of the plants, most of the workers came from areas within about a fifty-mile radius of the sites, but workers from further away also came, and these workers especially had problems with housing. Transportation was a problem, bus and rail services were developed, and individual passenger vehicles were used to transport workers.

The plants developed into almost self-contained communities. Sewer systems and water systems were developed. Roads and railroads were built within the sites. Spur lines were built to connect to outside rail services.

The plants had their hospitals, fire departments, maintenance departments, and cafeterias, and several of the plants had recreation facilities on the grounds. All the sites were fenced, plant guards patrolled the sites, <u>and security was very tight.</u> Several of the plants produced their newsletters.

ARKANSAS ORDINANCE PLANT (AOP)

On June 4, 1941, the War Department notified Governor Homer Adkins and Congressman David D. Terry that a \$33,000,000 fuse and detonator plant was approved for <u>immediate construction near</u> <u>Jacksonville</u>. The plant was the first national defense industry approved for the state, and at the peak of production <u>on November 22, 1942, 14,092 workers were employed at the plant.</u>

The Arkansas Ordnance Plant Guard House (see below) is a historic military structure on the grounds of the Jacksonville Museum of Military History in Jacksonville, Arkansas. It is a square wood-frame structure measuring 9 by 9 by 12 feet (2.7 m × 2.7 m × 3.7 m), mounted on metal skids for ease of relocation. It is presently mounted on a concrete pad to the right of the main museum building, believed to be not far from its original location. It was built in 1941 as part of the facilities of the World War II-era Arkansas Ordnance Plant, a facility that produced fuses and detonators in Jacksonville. After the war, it was moved to 1112 MacArthur Drive, and it was moved to the museum in 2006.



ARKANSAS ORDINANCE PLANT GUARDHOUSE - U.S. NATIONAL REGISTER OF HISTORIC PLACES

The contract to design, construct, and operate the plant, as well as train key personnel, was awarded to Ford, Bacon & Davis of New York, making this plant a GOCO plant. The plant was named the Arkansas Ordnance Plant and was one of the first plants of its kind in the nation. The facility had several assembly lines that occupied clusters of buildings where fuses, boosters, detonators, and primers were produced. The first assembly line was completed on March 4, 1942, and additional lines were all operational by June 1942.

The majority of the production line workers were women called WOWs (women ordnance workers). In August 1943, 12,686 employees were working at the plant, and about seventy-five percent of these were female.



By December 31, 1944, 3,085 African Americans were working four lines comprising twenty-four percent of the workforce. There were fifty-five African-American supervisors.

Transportation to the AOP was provided by Inter-City Transit Company buses and Missouri Pacific Railroad shuttles, as well as private vehicles. The Sunny Side housing project, consisting of a total of 375 houses and additional duplexes, was started on July 5, 1942. The project supplied housing for 500 families. A 200-unit trailer park was built on the opposite side of town from the project, and both developments were rented to the AOP employees as they were completed. The chief architect for the Sunny Side project was Edwin B. Cromwell of Little Rock (Pulaski County). The houses were prefabricated in Memphis by E. L. Bruce Lumber Company. Young A. Maury of Memphis was in charge of the construction of the houses. The completed sections were brought to the Jacksonville site, where crews could put up several houses a day. Dormitories were built on the AOP site. Staff housing was built on the site for the management and military personnel. Recreation facilities were built on the site. Housing, especially in the beginning, was never enough, and some workers lived in tents and their vehicles.

The AOP continued in production from 1942 until August 1945 and produced 1,062,336,263 detonators and relays, 106,697,860 primers, 328,948,476 percussion elements, 175,856,066 fuses, and 5,810,315 boosters. As the war began winding down, the number of employees needed decreased, and by August 1945, the number of employees had dropped to 7,000. By the end of August 5, 600 of the employees were dropped from the payroll, and the plant was completely closed within six months.

In 1946, the AOP facilities were offered for sale. Some buildings were leased or sold to industries located on the old plant site. Other buildings were removed from the site and taken to educational facilities around Arkansas.

Some of the land was sold back to former owners, with a clause that, if the government needed the land, it would be retaken. The Little Rock Air Force Base took in part of the former AOP site in the 1950s, and some of the owners had to give up their land for a second time.

In 2002, the Little Rock Air Force Base Historical Foundation, Inc. purchased a building located on the site of the former AOP administration building.

That building was converted in 2004 to the Jacksonville Museum of Military History, which includes information and artifacts on military history from the Civil War to current military conflicts. One area is dedicated to the history of the AOP.

MAUMELLE ORDNANCE WORKS (MOW)

Washington's approval for a plant to produce picric acid, used in the making of explosives, came on June 6, 1941. Maumelle Ordnance Works, located near Marche (Pulaski County), was expected to employ 800 to 1,000 people in the production phase of operations. The construction workers came from all over Arkansas, and housing shortages and transportation problems were evident here also. Buses and private vehicles provided transportation, but because the MOW was a smaller plant with fewer workers, the plant did not have as many housing or transportation problems. Cities Services Defense Corporation of New York was the primary contractor for the estimated \$10,000,000 project, and this plant was another GOCO plant. No housing was built at the MOW site. Initial production of picric acid began on March 28, 1942.

MOW remained in operation from March 1942 until August 1945 and produced 113,692,135 pounds of ammonium picrate. After the war, the plant was kept on standby status with a small military and civilian staff ready to put the plant back into production if needed. It was never reactivated, and in 1959, it was declared surplus and offered for sale. The city of North Little Rock (Pulaski County) purchased MOW and planned to build a large industrial complex on the site. The plan for the industrial complex never materialized, and in 1967, the property was sold to Arkansas entrepreneur and insurance executive, Jess P. Odom. Odom put together an idea for a "New Town," and his vision became the town of Maumelle (Pulaski County).

SOUTHWEST PROVING GROUND (SPG)

On June 6, 1941, Representative Oren Harris and Senator George Lloyd Spencer notified the *Hope Star* that a proving ground to test ammunition would be located near Hope. The Southwestern Proving Ground cost about \$15,000,000 to construct. Adjacent to the proving ground was built an airport described as being the third largest airport in the United States at completion in 1942. Located in the airport area were barracks and the headquarters of the 616th Army Air Corps Detachment. The detachment flew aircraft to test air bombs at the proving ground testing range and dropped bombs for testing in the Gulf of Mexico.

By July 19, 1941, approximately 400 families had received orders to move from the plant construction area. Cemeteries in the area were also relocated. The displaced people in this area were the hardest hit of any of the war plant sites. The majority of the displaced families were poor with few resources. The National Guard brought in tents for temporary quarters for them.

The Callahan Construction Company constructed the facility. This facility was administrated by the Army Ordnance Department and was government-owned and operated. The first shots at the testing grounds were fired on January 1, 1942. The proving ground was fifteen miles long and five miles wide. Machine gun shells, anti-tank gun shells, howitzer shells, and bombs of all types were tested at the site.

The proving ground employed approximately 500 civilians. The site closed in September 1945, leaving 40,000–50,000 acres of shell-torn wilderness. The Army condemned the area as being uninhabitable and unfit for any use because of the danger of unexploded bombs and shells. The airport area considered a safe area, was conveyed to the city of Hope for an airport.

The U.S. Army Corps of Engineers, under its Formerly Used Defense Sites (FUDS) program, began cleanup of the SPG in 1993. Over 8,000 ordnance items were removed from the site by 2003.

The Southwestern Proving Ground Airport Historic District was placed on the National Register of Historic Places on June 10, 1999.

A group of citizens of Hope are working on a museum called A Sentimental Journey to Southwestern Proving Ground located in the old generator building of the Airport Historic District. In 2003, 2004, and

2005, this group held balloon races to commemorate the Southwestern Proving Ground, honor former Senator Lloyd Spencer, and raise money for their museum.

MAUMELLE ORDNANCE WORKS BUNKER # 4



Maumelle Ordnance Works Bunker No.4, located at 4 Willastein Drive in Maumelle (Pulaski County), is a reinforced concrete structure built in 1942 to store picric acid and ammonium picrate produced to create explosives during World War II. <u>It was listed on the National Register of Historic Places on May</u> **24, 2006.**

<u>It was preserved as a reminder of the city's origins</u>. "The development of the land for MOW led to the eventual residential settlement in Maumelle," the National Register states.

The U.S. War Department approved the contract with the Cities Service Defense Corporation on July 15, 1941, to construct a plant to produce picric acid and ammonium picrate to be used in American weapons in World War II on 7,614 acres near West Marche (Pulaski County). Construction began on September 2, 1941, and by March 29, 1942, the first ammonium nitrate manufacturing facility began production. The Maumelle Ordnance Works (MOW) was essentially finished by May 25, 1942.

Along with the many manufacturing and supply buildings, the Maumelle Ordnance Works held twenty-one storage bunkers. Each of them was made of reinforced concrete and mounded with earth to help contain any explosions. The bunkers were sixty-one feet long and twenty-seven feet wide with rounded roofs that had an inside radius of thirteen feet and five inches. According to the National Register nomination, each of the bunkers had a "lightning rod protection system, ventilator stack with fusible link control, membrane waterproofing, indirect lighting by reflective mirror and floodlights, steel doors, and concrete pavement adjacent to entrance for loading and unloading."

Production at the Maumelle Ordnance Works essentially stopped on August 15, 1945, and by February 28, 1946, decontamination of the site was completed. The federal government continued to own the site, and the storage bunkers were sometimes used to hold in-transit bulk explosives.

The site was declared surplus on June 20, 1960, and eventually was sold to the Maumelle Land
Development Corporation, which created Maumelle New Town. Maumelle became a city in July 1985.

<u>Three of the storage bunkers survive, facing Lake Willastein.</u> The City of Maumelle uses Bunker No. 3 for a variety of purposes, <u>and another bunker had its front and sides removed to create a pavilion</u>.





"This structure is a significant part of the city's history in terms of its contributions to the development of Maumelle and local involvement in the war effort."

THE MUSEUM

The <u>Jacksonville Museum of Military History</u> in Jacksonville is located around 20 minutes from Little Rock and is a great spot to learn about the interesting military history found in town.

The museum sits on the original grounds of the World War II era Arkansas Ordnance Plant that was located in town. When the plant first opened up, Jacksonville only had around 400 people living there and this population figure jumped to over 40,000 practically overnight.



<u>The Arkansas Ordnance Plant was the first defense plant for Arkansas and the first of its kind in the nation</u>. It stands out in <u>that it produced 80 percent of the detonators used in World War II</u>.

Around 75 percent of the workers here were women, partly because the men were going off to war, but also because everything was assembled by hand and the components were tiny so women's hands worked better for the job. It was a dangerous job and they produced ordnances for bombs.



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