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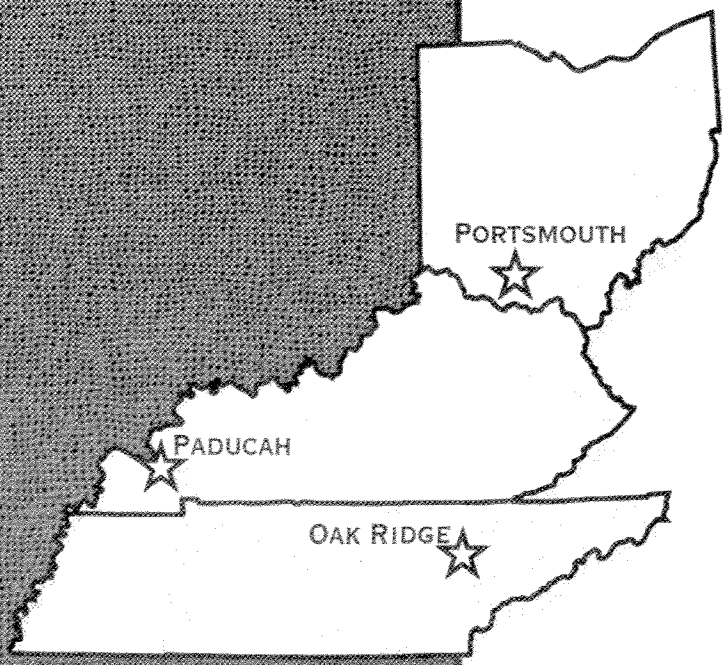
Cultural Resources Survey for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky



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BJCF-4 (2-04)

Cultural Resources Survey for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

DOES NOT CONTAIN
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Cultural Resources Survey for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky

Date Issued—March 2006

Prepared by
CDM Federal Services Inc.,
under subcontract 23900-SC-RM056F

Prepared for the
U.S. Department of Energy
Office of Environmental Management

BECHTEL JACOBS COMPANY LLC
managing the
Environmental Management Activities at the
Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant
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ACRONYMS

AEC	Atomic Energy Commission
ca.	circa
CFR	U.S. Code of Federal Regulations
COE	U.S. Army Corps of Engineers
Consultant	Thomason and Associates, Preservation Planners of Nashville, Tennessee
CRMP	Cultural Resources Management Plan
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
HF	hydrofluoric acid
KHC	Kentucky Heritage Council
KOW	Kentucky Ordnance Works
NRC	Nuclear Regulatory Commission
NRHP	National Register of Historic Places
PA	Programmatic Agreement
PGDP	Paducah Gaseous Diffusion Plant
SHPO	State Historic Preservation Officer
SWU	separative work unit
TJ	terajoule
TNT	trinitrotoluene
TVA	Tennessee Valley Authority
^{235}U	uranium 235
^{238}U	uranium 238
UF_4	uranium tetrafluoride
UF_6	uranium hexafluoride
UO_2	uranium dioxide
UO_3	uranium trioxide
U.S.	United States
USEC	United States Enrichment Corporation
USGS	United States Geological Survey
WKWMA	West Kentucky Wildlife Management Area

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EXECUTIVE SUMMARY

The Paducah Gaseous Diffusion Plant (PGDP) is owned by the United States (U.S.) Department of Energy (DOE), which has responsibility for Environmental Management programs and leases the uranium production facilities to the United States Enrichment Corporation (USEC). The plant has produced enriched uranium continuously since November 1952. With the facility at 52 years of age, the State Historic Preservation Officer (SHPO) of the Kentucky Heritage Council (KHC) entered into a Programmatic Agreement (PA) with DOE and the Advisory Council on Historic Preservation in January 2004. This PA required that U.S. DOE complete a Cultural Resources Survey and Cultural Resources Management Plan (CRMP).

In 2004, DOE contracted to complete the Cultural Resources Survey of the PGDP. All buildings and structures at the facility built into the early 1990s were inventoried in accordance with Kentucky survey standards. Following the survey and historical research, the period of significance for the plant was recognized as extending from 1952 to 1973.

This survey identified a National Register-eligible historic district at the PGDP. The potentially eligible PGDP Historic District contains 119 buildings and structures of which 101 would be considered contributing to the character of the district. These properties are significant under National Register criterion A and criteria consideration G for their significance in Cold War history and for their role in the development of America's commercial nuclear industry. The proposed PGDP Historic District includes a large area that has remained in continuous industrial production since 1952.

1. INTRODUCTION

The Paducah Gaseous Diffusion Plant (PGDP) is owned by the United States (U.S.) Department of Energy (DOE), which has responsibility for Environmental Management programs and leases the uranium production facilities to the United States Enrichment Corporation (USEC). The Environmental Management mission includes environmental cleanup and waste management, the management of depleted uranium hexafluoride (UF_6) generated prior to July 1993, and maintenance of nonleased buildings and grounds.

The PGDP is located in western Kentucky (Figure 1), approximately 3.5 miles south of the Ohio River and 12 miles west of the city of Paducah. The current size of the Paducah U.S. DOE reservation is 3556 acres of which 748 are within the main security fence (Figure 2).[1] The PGDP contains 161 primary buildings and numerous other ancillary buildings and structures (Figure 3).

This survey and National Register Assessment were completed at the request of DOE from January to September 2004. The project was completed by Thomason and Associates under the direction of Project Principal, Philip Thomason.

The area included within the survey includes the historic and existing boundary of PGDP. The purpose of this study was to accomplish the following:

- Survey PGDP in accordance with Kentucky survey standards;
- Evaluate PGDP for eligibility on the National Register of Historic Places (NRHP); and
- Comply with provisions of a Programmatic Agreement (PA) among DOE, the Kentucky State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation concerning the management of historical properties at PGDP. This PA was signed in January 2004 and called for the completion of a Cultural Resources Survey and Cultural Resources Management Plan (CRMP) for PGDP.

This report was prepared by Thomason and Associates, Preservation Planners of Nashville, Tennessee (Consultant). Over the past decade, this firm has completed several studies of nuclear production facilities at Oak Ridge, Tennessee, for DOE. Based on these studies and other research, it is the conclusion of the Consultant that the DOE Paducah Site contains a potentially eligible National Register historic district.

[1] USEC Web site, www.usec.com, "Paducah Plant Key Facts."

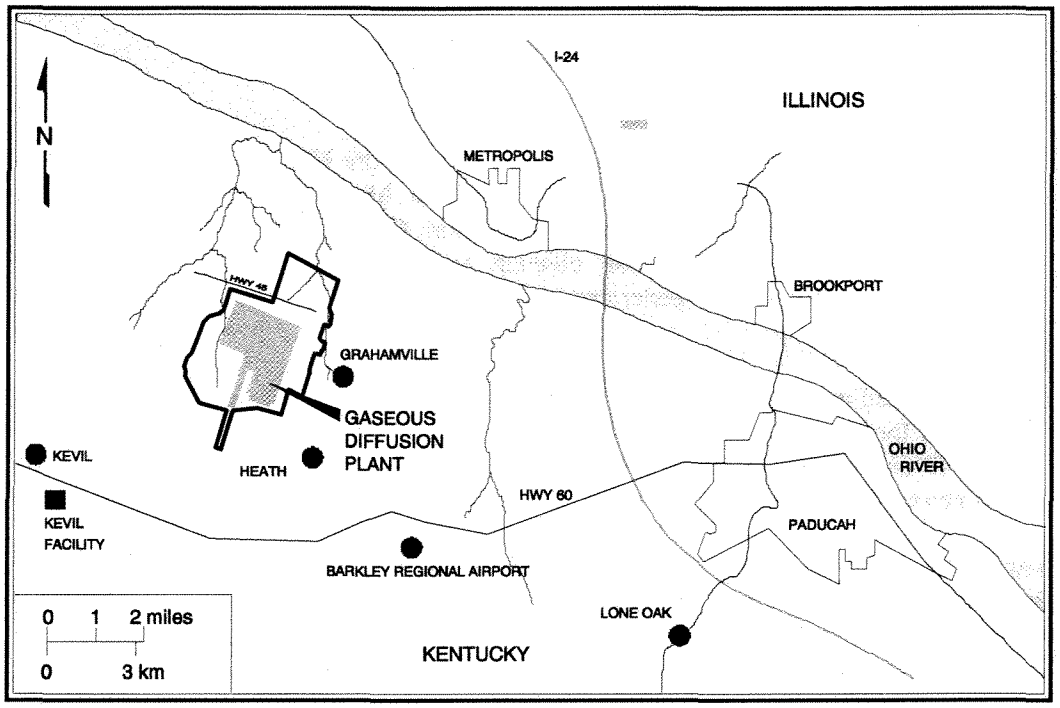

Figure 1. PGDP vicinity map.

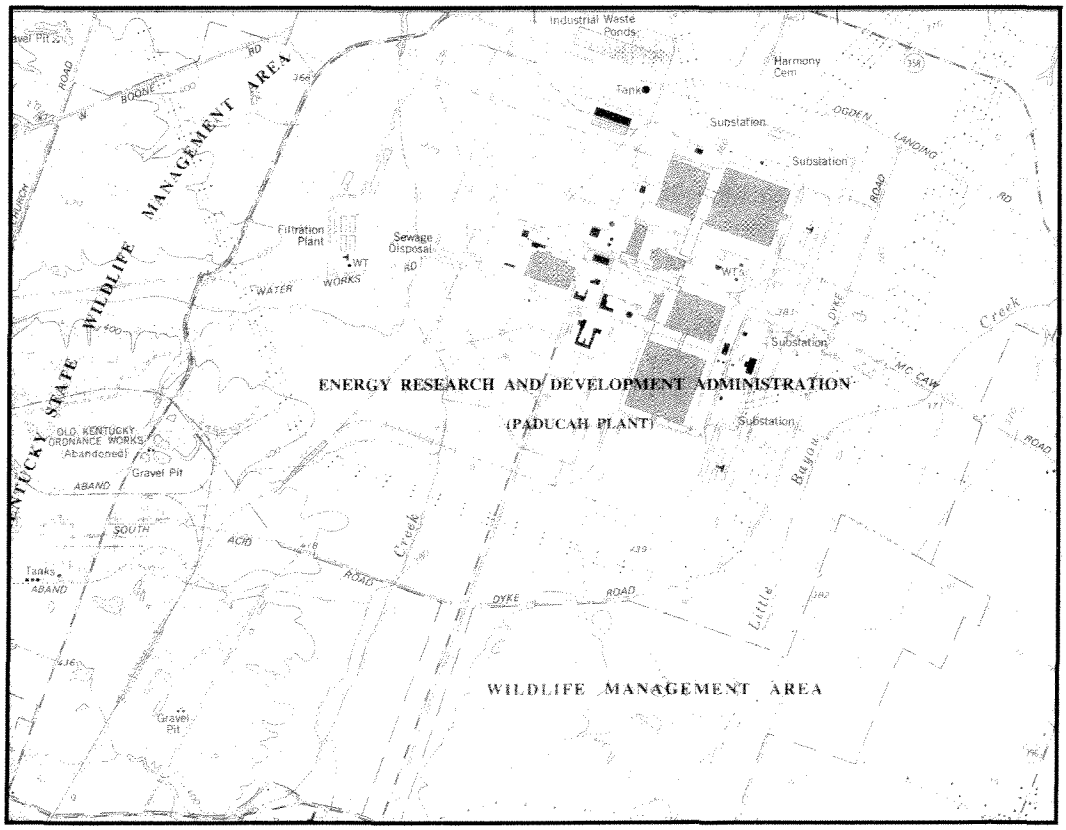

Figure 2. United States Geological Survey (USGS) quadrangle map, Heath, Kentucky (1978), showing PGDP location.

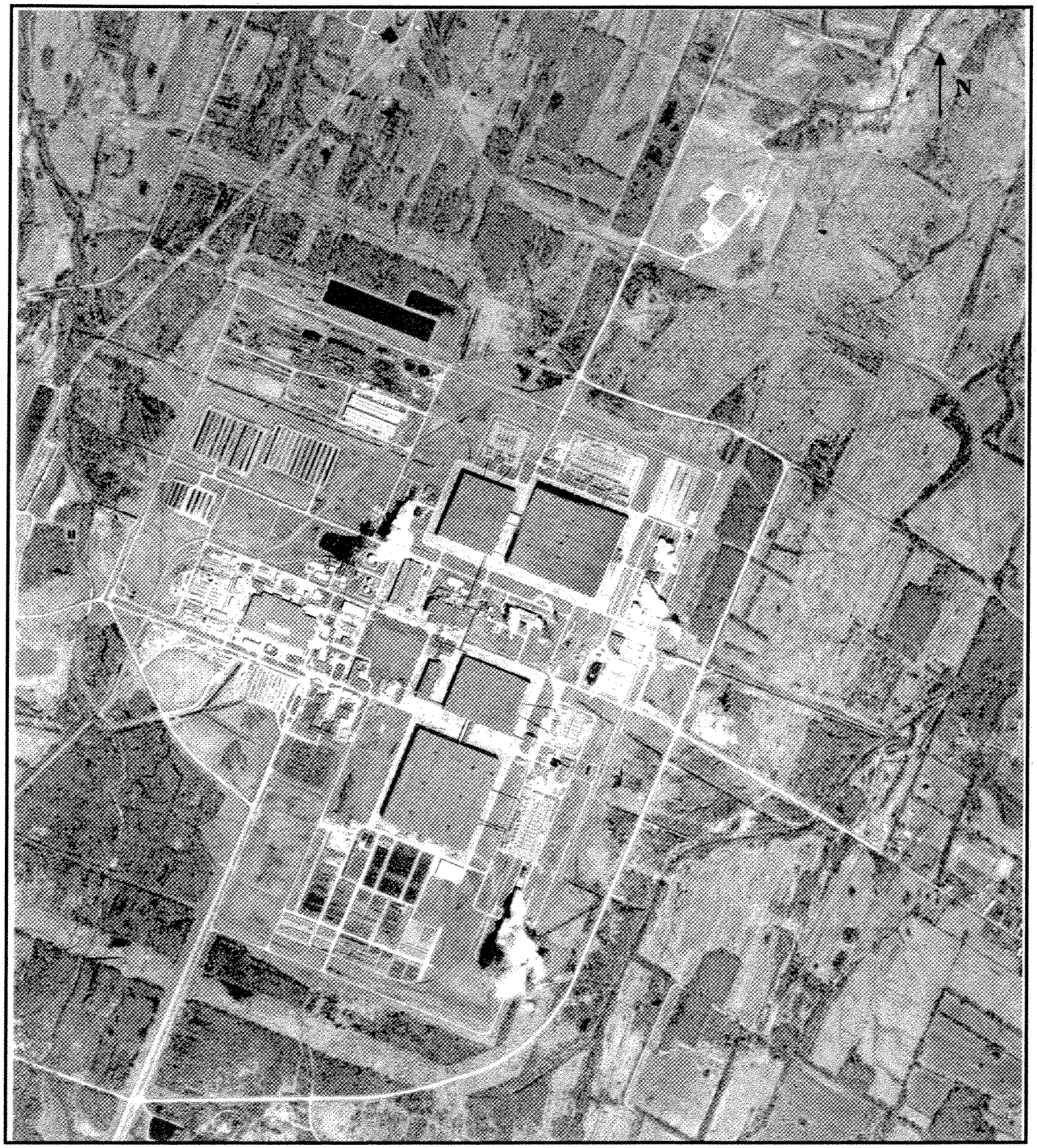

Figure 3. Aerial view of PGDP showing the four large process buildings and support facilities.

The PGDP Historic District is significant under National Register criterion A and criteria consideration G for its military significance during the Cold War and for its role in America's commercial nuclear power development. The PGDP was one of three U.S. facilities in operation during the Cold War that enriched uranium for nuclear weapons. The main components of this district are the plant's four main production buildings, which contain the cascade system critical to the uranium enrichment process. These buildings, C-331, C-333, C-335, and C-337, continue to be used to enrich uranium and are supported by various other processing and operations buildings. The proposed district includes 101 contributing buildings and structures associated with the gaseous diffusion process, such as cooling towers, electrical switchyards, and switching stations. The proposed district also contains administrative and control buildings which were integral to the Contractor-operations of the plant.

2. RESEARCH AND SURVEY METHODOLOGY

This assessment was conducted in accordance with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (National Park Service, 1983). The study was also completed following recommendations set forth in the following documents: *Guidelines for Local Surveys: A Basis for Preservation Planning*: *National Register Bulletin #24* (National Park Service, 1985); and the *Kentucky Historic Resources Survey Manual* (Kentucky Heritage Council [KHC] 2001).

A discussion with the KHC in January 2003 revealed that cultural resource studies at PGDP have been minimal. Two studies were completed for archaeological resources at the plant in 1993 and 1994 by Martin C Evans and the U.S. Army Corps of Engineers (COE) respectfully. These studies, *A Phase I Archaeological Reconnaissance on the Solid Waste Landfill (Eso-18007) at the Paducah Gaseous Diffusion Plant in McCracken County, KY* (Martin C. Evans, 1993) and *Environmental Investigations at the Paducah Gaseous Diffusion Plant and Surrounding Area, McCracken County, Kentucky, Volume IV, Cultural Resources Investigation* (COE 1994), resulted in the survey of a number of archaeological sites and assessments of National Register eligibility. No buildings or structures associated with PGDP were inventoried as part of these studies. No comprehensive architectural survey has taken place in McCracken County.

In recent years, a number of studies have taken place on a nationwide level to determine the significance of nuclear facilities in World War II and the Cold War. The prototype gaseous diffusion plant was constructed at Oak Ridge, Tennessee, in 1943. Known as K-25, this plant is considered one of the signature buildings of the Manhattan Project and has been identified for eligibility as a National Historic Landmark.[2] During the early 1950s, additional gaseous diffusion plants were constructed at two locations: Paducah, Kentucky, and Portsmouth, Ohio. Paducah was operational in 1952 and Portsmouth in 1956. The Consultant interviewed F.G. "Skip" Gosling, historic preservation officer for the DOE, regarding the National Register eligibility of the Paducah and Portsmouth plants. Mr. Gosling agreed that both plants are potentially eligible for their state and local significance, and that the primary process buildings would be the key contributing elements to these districts with ancillary support buildings contributing to the districts as well.[3] In September 2004, the Consultant contacted the Ohio SHPO and spoke with David Snyder of that office regarding the National Register eligibility of the Portsmouth plant. No formal architectural/historical report has been completed on the Portsmouth plant to date, but such a report is currently in progress. According to Mr. Snyder, the Ohio SHPO has determined that the entire plant is eligible for the National Register for its Cold War significance.[4]

In January 2003, an architectural and historical evaluation was conducted of the C-410 Complex within PGDP. Constructed between 1953 and 1957, the C-410 Complex served as a feed plant to the cascade diffusion system of the main process buildings. It consisted of the main C-410 Building, as well as buildings C-420, C-411, and various support facilities, including three storage tanks and a sludge lagoon. Due to extensive contamination, DOE proposed to decontaminate and decommission the C-410 Complex. The study concluded that the C-410 Complex was eligible for the National Register as a contributing property within the potentially eligible PGDP Historic District. This conclusion was contained in the *Cultural Resources Survey and National Register Assessment, C-410 Complex, Paducah Gaseous Diffusion Plant, McCracken County, Kentucky, January 20, 2003.* The KHC concurred with the assessment of National Register eligibility for this historic district contained in the report.

The fieldwork for this study was conducted in accordance with KHC standards. The survey was directed by Philip Thomason, Principal of Thomason and Associates, with assistance from Peggy Nickell.

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[2] Joe Garrison, Section 106 Coordinator, Tennessee Historical Commission, SHPO, January 15, 2003.
[3] F.G. "Skip" Gosling, Historic Preservation Officer, DOE, Washington, DC, telephone interview, January 14, 2003.
[4] David Snyder, Section 106 Coordinator, Ohio Historic Preservation Office, telephone interview, September 2, 2004.

The on-site field survey of the facility took place between March 1, 2004, and September 1, 2004. An architectural description was completed for each property along with historical research and discussions with plant personnel on the building or structure's historic and present use. The survey examined every aboveground building and structure within the footprint of PGDP. Not surveyed were aboveground piping, small pump houses associated with the water works, temporary trailers, concrete pads containing cylinder storage tanks, and small electrical substations. Because of the large quantities of these structures and their secondary nature in the overall character of the plant, it was decided to provide representative photographs and generic descriptions of these facilities rather than individual forms.[5]

A total of 161 primary buildings and structures were inventoried within the existing boundary of the PGDP. Appendix A provides a listing of these facilities. These properties and associated resources are described and evaluated in Appendix B. The Kentucky Historic Resources Individual Survey Forms, MCN-95 through MCN-138, and MCN-140 through MCN-263 are included in Appendix C.

[5] Craig Potts, Environmental Review Coordinator, KHC, e-mail letter, February 18, 2003.

3. HISTORICAL CONTEXT

3.1 NINETEENTH AND EARLY TWENTIETH CENTURY HERITAGE

Prior to the 1940s, the land now occupied by PGDP was characterized by farmland and woodlands. In the eighteenth century, the land between the Tennessee River and the Mississippi River was part of the Chickasaw Nation. This Native American tribe claimed much of the land in western Kentucky and Tennessee and south to the Choctaw Nation in Mississippi. In 1818, Andrew Jackson and Isaac Shelby negotiated a treaty with the Chickasaw to purchase this land. Known as the Jackson Purchase, this acquisition allowed for extensive Euro-American settlement into the region.

The decade of the 1820s witnessed substantial settlement in this section of Kentucky with many settlers of Scotch-Irish, English, and German descent. Formed out of Hickman County, McCracken County was created in 1824 as the seventy-eighth county in the state. Paducah emerged as the commercial and governmental center of the county and was incorporated in 1830 at the confluence of the Ohio and Tennessee rivers.[6] Most of the land in the county was converted from woodlands and grasslands to cultivated fields. Corn, wheat, and tobacco were the main crops, and many farms raised livestock such as cattle and swine. Hundreds of settlers owned slaves, and by 1840, slaves comprised 16 percent of the county's population. In 1860, the population of McCracken County had risen to 10,322, of which 8554 were white and 1768 were African-American slaves.[7]

Despite attempts to remain neutral, Kentucky was occupied by Union and Confederate forces early in the Civil War. Paducah became an important military base for the Union army, and by February 1862, most Confederate troops had been forced from this section of the state. McCracken County sent soldiers into both the Union and Confederate armies, including African-Americans who served in Union infantry and artillery regiments. No major conflicts occurred in the county until March 1864 when Confederate Major General Nathan Bedford Forrest led a raid on Paducah. After defeating the garrison at Union City, Tennessee, Forrest led 2800 men northeast to strike at Paducah. Arriving on March 24, Forrest's command quickly seized the town when a smaller Union force fell back into Fort Anderson, a strong earthwork on the west side of the community. After a brief skirmish outside the fort, Forrest's men gathered a substantial amount of supplies and horses before moving south to Mayfield.[8] No other major actions took place in the county during the remainder of the war.

Following the Civil War, McCracken County's population increased to almost 14,000 by 1870. Tobacco emerged as the primary cash crop during the mid-nineteenth century and 1.25 million pounds were produced by county farmers in 1870.[9] In addition to tobacco, county farmers also raised substantial amounts of corn and wheat. The 1870 census also showed swine making up the largest proportion of livestock followed by mules, horses, and cattle. With the growing tobacco trade, Paducah shipped 12,000 hogsheads of tobacco to other markets in 1884. Post war industries that were developed in Paducah, included five wagon factories, a woolen mill, three tobacco warehouses, a tobacco stemmery, and three large flour mills. The city's rail service, first established in 1853, was enlarged in the 1880s when the Paducah-Elizabeth Railroad was consolidated with the New Orleans and Ohio Railroad.[10] This railroad line was later merged into the Nashville, Chattanooga, and St. Louis Railroad system.

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[6] *Environmental Investigations at the Paducah Gaseous Diffusion Plant and Surrounding Area, McCracken County, Kentucky, Volume IV, Cultural Resources Investigation.* Department of the Army, Vicksburg, Mississippi, and Nashville, Tennessee, 1994, page 24.

[7] Ibid, page 25.

[8] Patricia Faust, ed. *Historical Times Illustrated Encyclopedia of the Civil War.* New York: Harper & Row, 1986, page 552.

[9] *Environmental Investigations,* Department of the Army, page 27.

[10] Ibid, page 28.

The property now encompassed by PGDP was the site of several large farms in the nineteenth century. One of the larger landowners was the Reverend W. S. Baldry who purchased 1688 acres in this vicinity in 1859.[11] His daughter, Mary Jane, married W. F. Cunningham, and the couple later inherited much of the Baldry estate. The Harmony Baptist Church was founded by the Baldry family and built on their land. When the federal government purchased property for the Kentucky Ordinance Works (KOW) in 1942, this church was moved to its present site at Grahamville.

Grahamville, located just to the east of the present PGDP boundary, became the primary crossroads community in this vicinity. This community was settled in the 1870s following the establishment of a store and tobacco warehouse by Zelotes Graham (Figure 4). A Methodist congregation constructed a church at Grahamville, and a grist mill was also established in the community.[12] Another important family in the vicinity was that of Reverend Josiah Carneal who purchased extensive acreage in this section of the county. His son, John D. Carneal, donated land in 1876 for the construction of the African-American Carneal Chapel Missionary Baptist Church just north of Grahamville. A school was also built on this property in 1900, and this crossroads settlement is still known as Carneal.

Approximately 1.5 miles south of Grahamville the community of Heath emerged around the turn of the twentieth century on the former lands of Lafayette and Harriet Harrison. A large plantation was established here in the 1850s by Edward and Harriet Owen. At one time, 21 slave cabins existed on the plantation.[13] Following the Civil War, Harriet Owen gave her former slaves one acre of land each on her property. At her death, the bulk of her estate went to her last husband, Lafayette Harrison. The property was subdivided in the 1890s among the Harrison heirs and in 1897 the small community of Heath grew up around a store and post office. The community grew in prominence in 1902 when the Paducah-Cairo Railroad was completed through this area and a depot was built at Heath. Part of the former Harrison estate included not only Heath but also extended into the property now encompassed by PGDP.

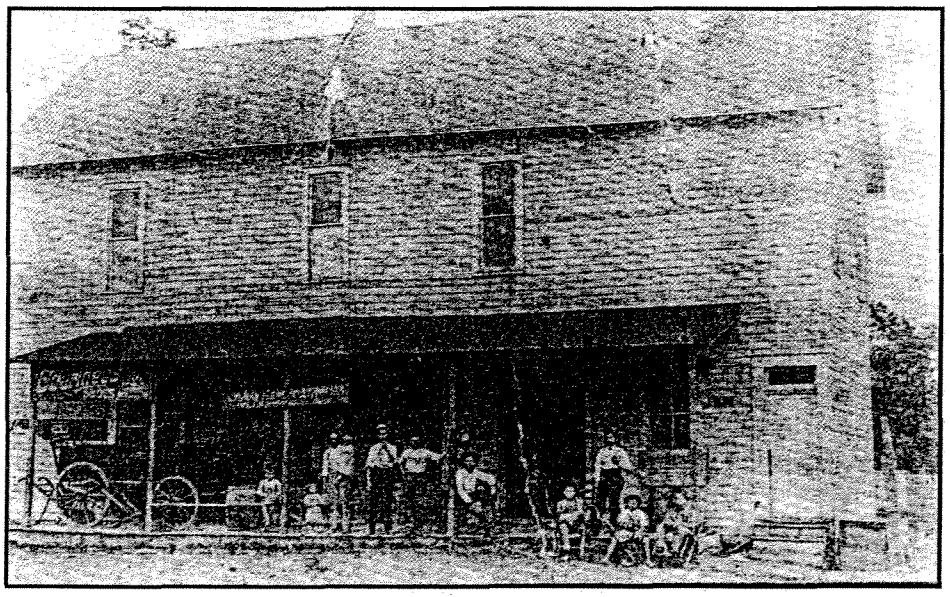

Figure 4. Circa (ca.) 1900 photograph of the Zelotes Graham store in Grahamville. This building is no longer extant *(Photo from History and Families of McCracken County, Kentucky: 1824-1989, p.42).*

[11] McCracken County Deed Book M, page 169.

[12] Paducah Historical Society, *History and Families of McCracken County, Kentucky: 1824-1989.* Paducah, Kentucky: Turner Publishing Company, 1989, page 43.

[13] *Environmental Investigations,* Department of the Army, page 29.

During the early twentieth century, farmers in McCracken County prospered for several decades. Corn, wheat, and tobacco continued to be grown in abundance, and livestock sales were also active. At Heath, a broom factory was opened in 1922 as the small community grew around the railroad depot. However, by the mid-1920s, the over-production of tobacco, nationwide, led to falling prices, and many farmers in the county suffered as a result. With the Great Depression, many of the county's farmers participated in New Deal programs that sought to control agricultural production. Between 1934 and 1939, McCracken County decreased production of tobacco by 78 percent as part of efforts to cut surpluses and raise prices.[14] These efforts were not successful, and land values dropped by the end of the decade. Many farmers continued to struggle until America's entry into World War II in 1941. The landscape of this section of McCracken County was transformed when the federal government established the KOW west of Paducah.

3.2 THE KENTUCKY ORDNANCE WORKS

The land on which the PGDP is located was originally part of the property occupied by the Kentucky Ordnance Works (KOW). The KOW was an explosives- manufacturing facility constructed in 1942 with the sole purpose of producing trinitrotoluene (TNT) and concentrated sulfuric acid from six production lines. The chemical TNT was widely used for a variety of explosives in bombs, mines, torpedoes, and other munitions.

The KOW was one of five large government-owned plants constructed in America under a contract with the DuPont de Nemours and Company of Delaware. Because of its demonstrated capacity in the production of gunpowder and munitions, DuPont was awarded a TNT Special Contract by the U.S. government in 1942.[15] This contract called for DuPont to design the plants, procure production equipment, and consult in overall plant operations. The designs of these plants were based on DuPont's Kankakee Ordnance Works near Joliet, Illinois, a DuPont-designed-and-operated TNT plant, then in its initial operating stages.[16] The first three plants to be built under this contract were the West Virginia Ordnance Works at Point Pleasant, Ohio; the Longhorn Ordnance Works at Karnack, Texas; and the Lake Ontario Ordnance Works at Modeltown, New York. These three plants were commissioned on January 8, 1942. Two additional plants, the Pennsylvania Ordnance Works near Milton, Pennsylvania; and the KOW west of Paducah, were commissioned in February and March 1942.

The announcement of the KOW was made on February 27, 1942, when the *Paducah Sun-Democrat* headlined "$30,000,000 Arms Plant to be Built in McCracken County."[17] The federal government condemned 16,100 acres west of the city and an estimated 250 families were forced to relocate. Most of the buildings within the condemned area were razed, although some dwellings were salvaged and moved to new locations. The federal government began purchasing property in June and eventually acquired over 250 separate tracts for the plant.[18]

The site for the KOW was largely composed of farmland and woodlands near the small community of Heath. The initial contract for the construction of this plant was for $4,128,490, and on March 10, 1942, the Rust Engineering Company was awarded the contract to build the facility. The KOW was to have six lines producing TNT, as well as, sulfuric acid. The Atlas Powder Company, a subsidiary of DuPont, was contracted to operate the plant. Actual construction began April 15, 1942, and over the next seven months, some 6000 workers built numerous concrete and frame buildings at the site. A spur line of the Illinois Central Railroad was also built to provide rail transportation to the plant.

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[14] Ibid, page 30.

[15] "U.S. TNT Special Contract." Manuscript on file at the Hewgley Museum, Wilmington, Delaware, page I-1.

[16] Ibid, page I-2.

[17] Paducah Historical Society, page 18.

[18] *McCracken County General Index to Deeds, Grantees, N to Z, 1939–1961*, McCracken County Courthouse, Paducah, Kentucky.

On December 28, 1942, the KOW went into operation when one of its lines produced its first amounts of TNT. During its operations, the plant consisted of a TNT manufacturing area, an acid production area, a water-treatment plant, and a coal-fired steam plant. Figure 5 shows the KOW electrical plant. The KOW had its own cafeteria, which could seat 248 persons at one time, a hospital, laundry, and its own box factory for making TNT-packed boxes.[19] The water system was considered one of the most modern in the state and two of its water tanks remain in use today. To the west of the production area were administrative buildings and residences for plant managers. The last of the buildings at the plant was completed in April 1943.

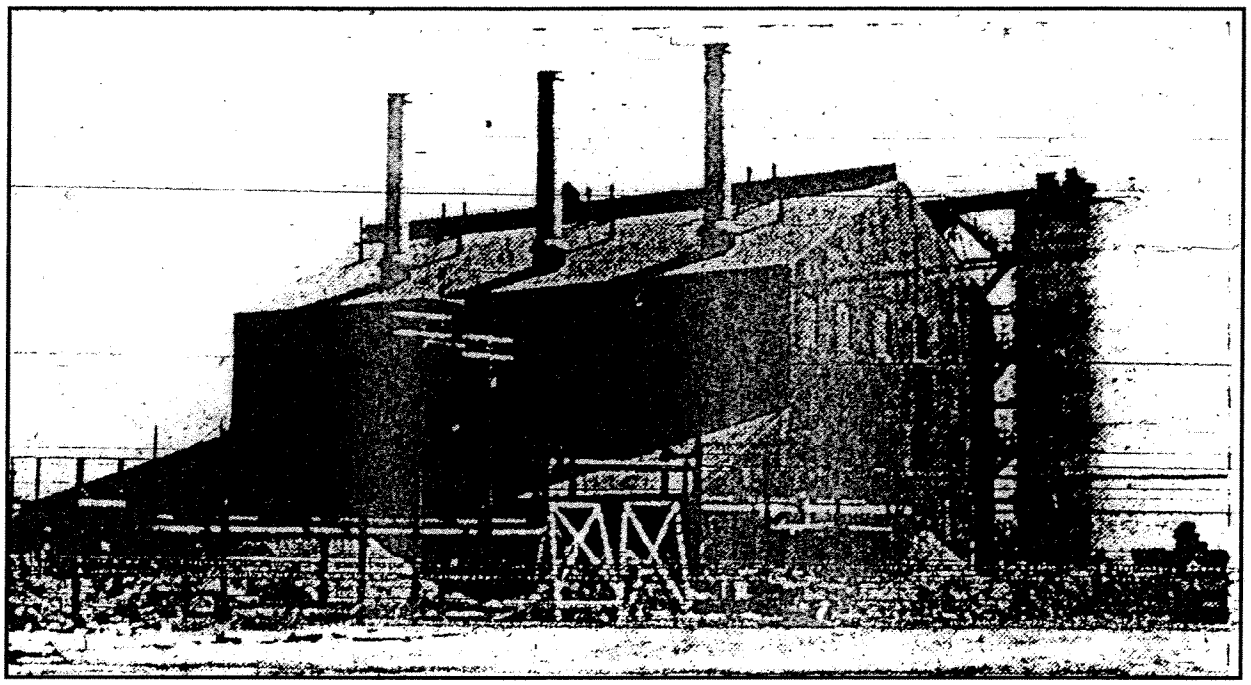

Figure 5. World War II photograph of the KOW electrical plant. The four coal-storage holding tanks associated with this building remain extant (*Paducah Sun-Democrat, December 15, 1950).*

The plant made TNT by adding nitric acid to toluene gas in large 2000-gallon vats. The liquid TNT was then washed, hardened, and formed into flakes, which were then placed into 50-pound boxes. The boxes were transported by rail and truck to the Magazine Area, located to the north of the production area. A total of 92 concrete bunkers in the Magazine Area were built to provide temporary storage for the boxes of TNT. From the bunkers, the boxes were then transported to munitions plants across the country. Hundreds of workers were employed at the plant during the war years.

The plant remained in operation from December 1942 until it was placed in standby status on August 15, 1945. With the official surrender of Japan and the end of hostilities, the last TNT was manufactured and packed on August 24. The KOW was declared surplus to the Surplus Property Board on September 20, 1945. During its years of production, the KOW manufactured almost 393 million pounds of TNT.[20] Overall, from 1940 to 1945, DuPont produced more smokeless gunpowder and more TNT than any other company previously in history.[21] Figures 6 through 10 show the TNT Production Area.

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[19] Ibid.

[20] *Final Phase I Engineering Report, Volume I of IV, Executive Summary, Phase I Remedial Investigation at the Former Kentucky Ordnance Works, McCracken County, Kentucky.* Report Prepared for the COE, Nashville District, TCT-St. Louis, 1992, page 1-6.

[21] *DuPont, The Autobiography of an American Enterprise.* New York: Charles Scribner's Sons, 1952, page 114.

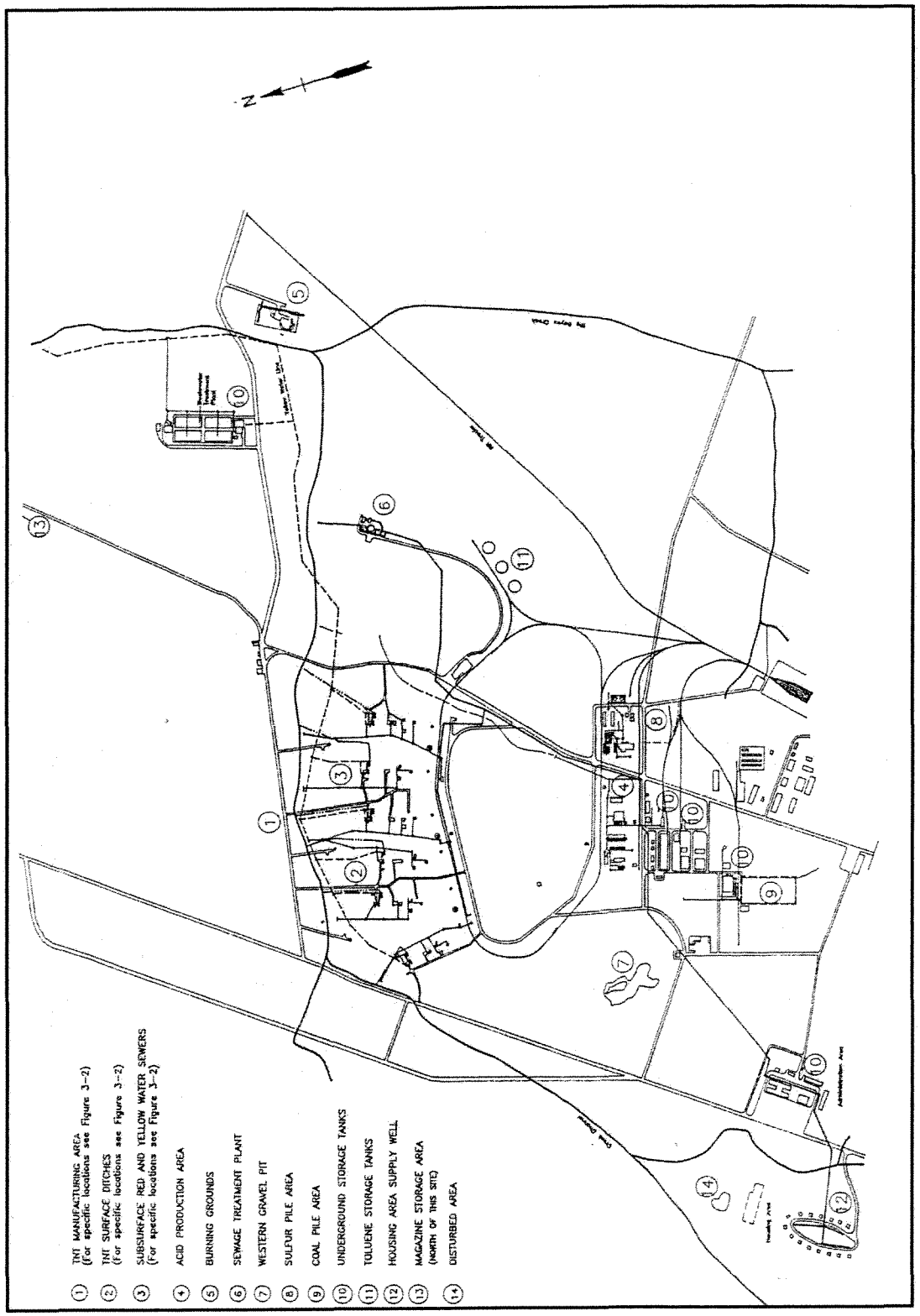

Figure 6. Site plan for the KOW TNT Production Area
(Plan courtesy of the U.S. Army Corps of Engineers).

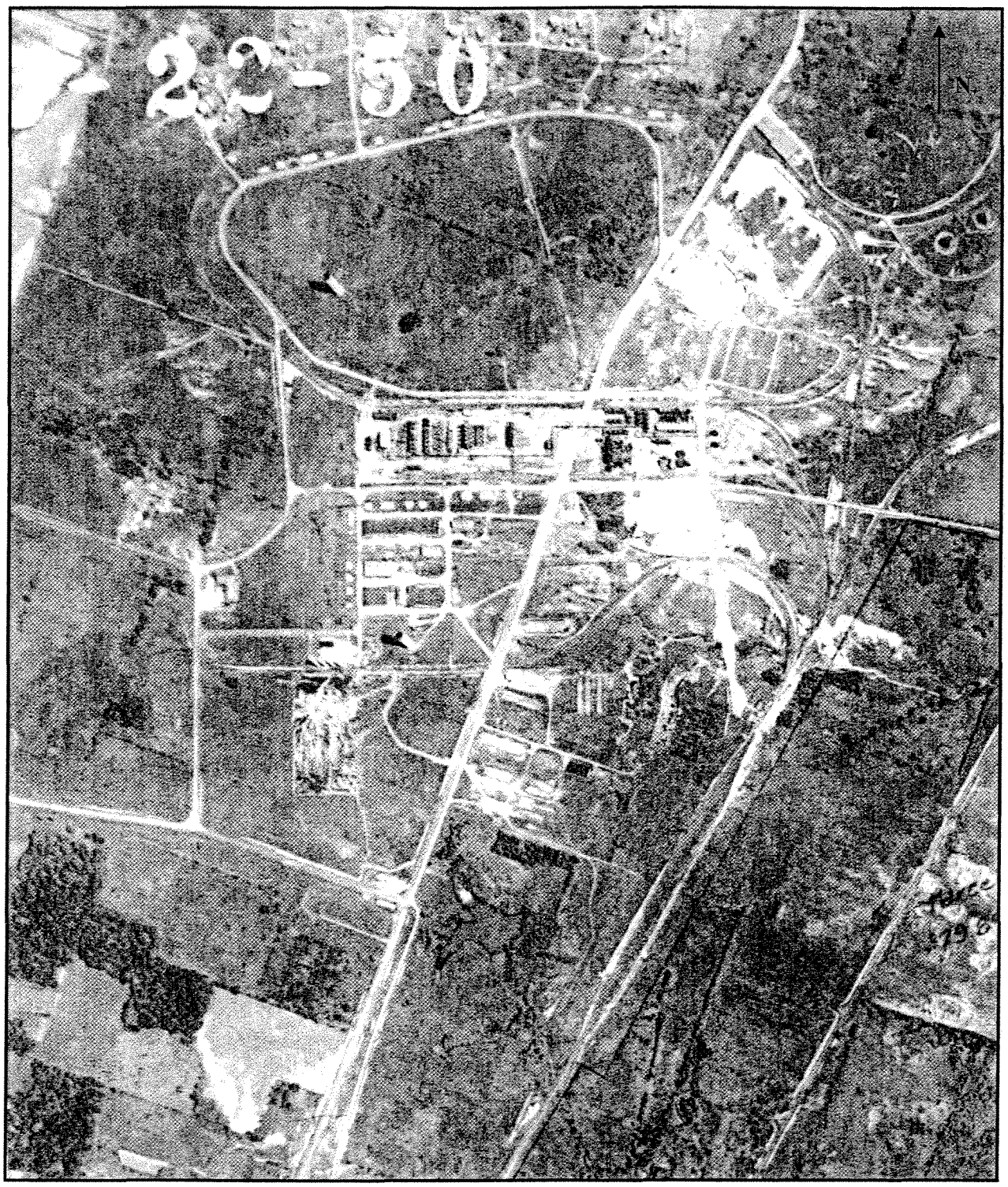

Figure 7. Aerial view 1 of the KOW TNT Production Area in May 1950
(Photograph on file at the McCracken County Property Valuation Office, Paducah).

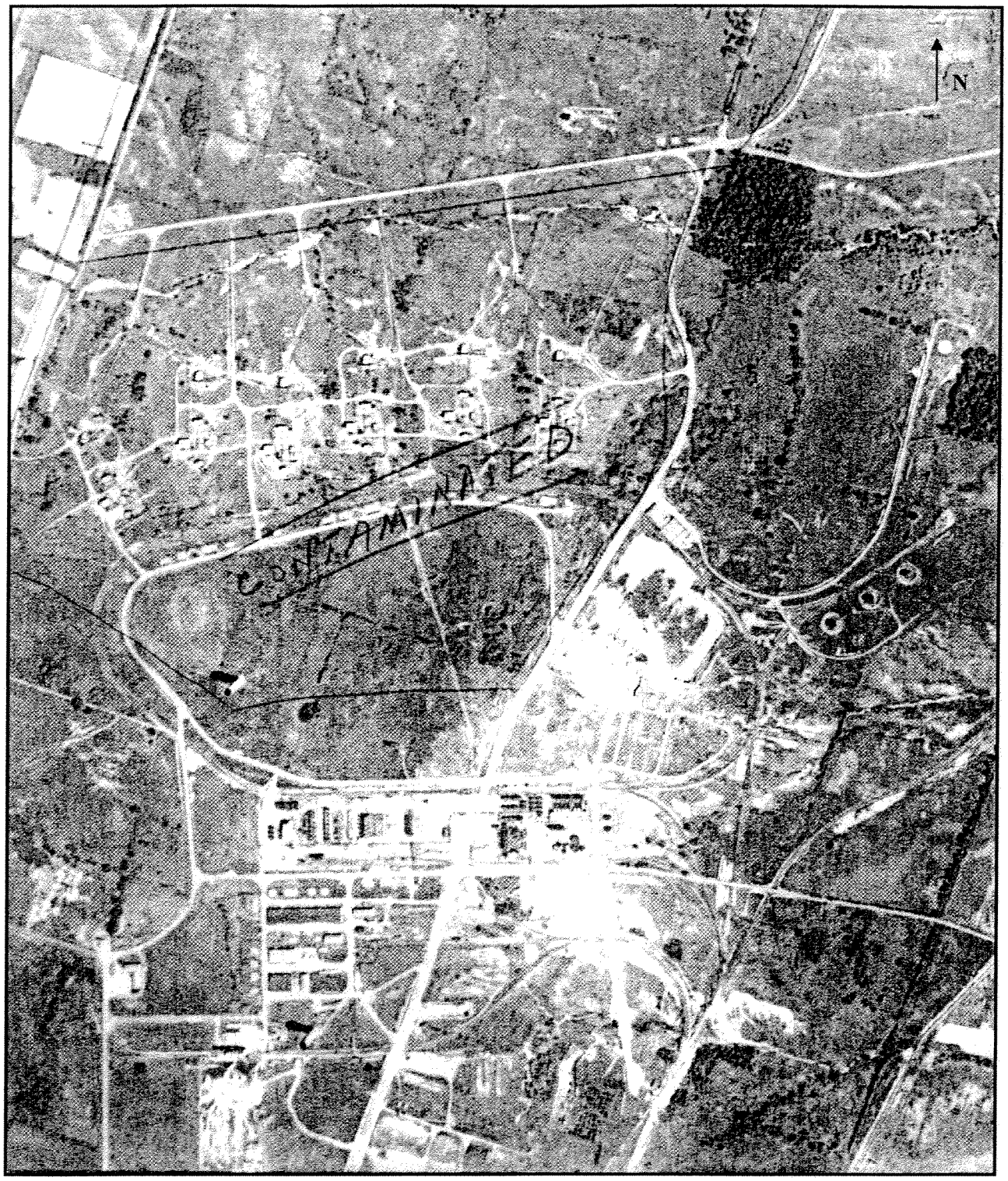

Figure 8. Aerial view 2 of the KOW TNT Production Area in May 1950. The word "Contaminated" refers to chemicals associated with the production of trinitrotoluene and sulfuric acid. The property was contaminated prior to the construction of the PGDP and is not DOE's responsibility. The COE is responsible for the management of the federally-owned KOW.

Figure 9. Aerial view of the KOW Magazine Area in May 1950
(Photograph on file at the McCracken County Property Valuation Office, Paducah).

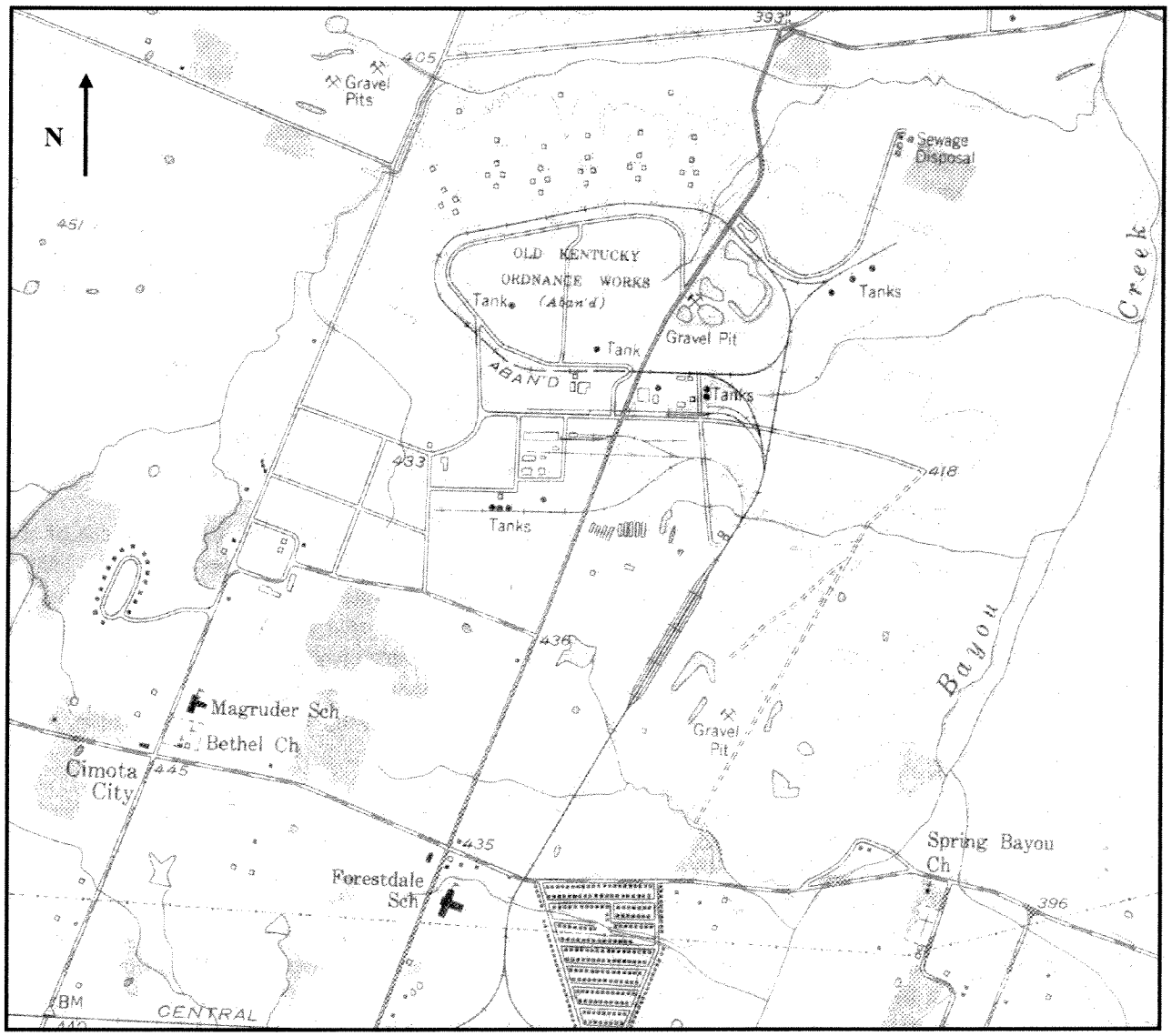

Figure 10. The Heath USGS quadrangle map of 1954, continued to show the layout and plan of the KOW during its demolition. The residential area of McCracken Village is shown just northwest of the Magruder School.

For a number of years, most buildings at the site were secured and left standing. During the early 1950s many of the buildings remained extant as shown on the May 1950 aerial photographs taken by Tennessee Valley Authority (TVA). However, once construction of PGDP was initiated, most of the KOW buildings were removed. Today, the former KOW site now consists largely of concrete foundations identifying the locations of the TNT and acid production area. Two original 250,000-gallon concrete water tanks, designated C-611-M (MCN-193) and C-611-N (MCN-194), are no longer utilized and are considered out of service. At the site of the steam power plant are four concrete coal-storage tanks and the shell of a concrete and brick building, which was part of the East Acid Production Area.

The most visible remnants of the KOW on the landscape are the remaining concrete storage bunkers located north of the main production area. Nine rows of concrete bunkers were built, arranged in a north/south axis. The bunkers were evenly spaced apart and were built with sloping reinforced concrete walls on three sides and wood roofs. The walls were built four-feet-thick at the base and tapered to 18-inches-thick near the roof. The roof and the exterior walls of the bunkers were covered with a foot of earth to help suppress accidental explosions and provide camouflage in case of an aerial attack. The

design of the bunkers was intended to direct any accidental explosion into the air out of the roof as opposed to exploding laterally, which could affect adjacent bunkers. Most of the bunkers are now part of the WKWMA; however, several are also owned by private individuals or organizations. The KOW site is part of the Defense Environmental Restoration Program due to the contaminants of TNT and its by-products. A Phase I Contamination Evaluation was performed by TCT-St. Louis in 1990 that identified numerous sources of contaminants in the TNT production-line area. In addition to the properties within the project area, the residential development associated with the operations of the KOW remains extant just west of Bethel Church Road. Originally known as McCracken Village, this complex of 15 dwellings is located around a circular park. The federal government sold this property under the provisions of the Federal Property and Administrative Services Act of 1949 in March 1950. [22] The property was purchased by Phil and Neva Magruder who renamed the complex Magruder Village. The dwellings are now in individual private ownership.

The management of the federally-owned KOW site is managed by the COE.

3.3 DEVELOPMENT OF NUCLEAR ENERGY AND THE MANHATTAN PROJECT

The PGDP has its origins in the development of nuclear energy and the Manhattan Project of the 1940s. The development of nuclear energy emerged from various scientific discoveries of the 1930s. During the early years of this decade, scientists discovered that the nucleus of an atom contains neutrons, particles with no charge; as well as protons, particles with positive charges, and that the nucleus is surrounded by electrons, particles with negative charges. Further research revealed that atoms of the same element can have different weights depending on the number of neutrons in a particular atom's nucleus. These "different classes of atoms of the same element, but with varying numbers of neutrons, were designated isotopes."[23]

There are three isotopes of uranium, a naturally occurring element found in the earth. All three of these isotopes have 92 protons and 92 electrons, but each has a different number of neutrons and, thus, a different atomic weight. Uranium-238 (^{238}U) has 146 neutrons and is the heaviest of the three isotopes. It accounts for over 99 percent of natural uranium. Uranium-235 (^{235}U) has 143 neutrons in its nucleus and makes up only 0.7 percent of natural uranium. The third isotope, uranium-234, has 142 neutrons and is found only in traces of the element.[24] This slight difference in the atomic weights of uranium isotopes played a key role in the ability to separate them and therefore in the ultimate development of nuclear energy.

Additional advancements in the field of physics during the 1930s included the discovery of fission. In the early 1930s, it was known that bombarding elements with protons could split atoms. In 1934, an Italian scientist bombarded elements with neutrons instead. In 1939, Berlin radiochemists used this method with uranium and realized that "while the nuclei of most elements changed somewhat during neutron bombardment, uranium nuclei changed greatly and broke into two roughly equal pieces."[25] The end products weighed less than the original uranium; therefore, using Einstein's $E=mc^2$ equation, the loss of mass was converted into a form of kinetic energy. This energy, in turn, could be converted into heat. This process of splitting atoms and creating energy is called fission.

During the fission process, neutrons are released. If they collide with other atoms, additional neutrons are released and, in turn, smash into more atoms, which release more neutrons to smash into more atoms, and so on. This chain reaction produces a continuous release of energy. Once discovered, scientists realized that "a controlled self-sustaining reaction could make it possible to generate a large

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[22] *McCracken County Deed Book* 286, page 483, March 15, 1950.

[23] F.G. Gosling. *The Manhattan Project: Making the Atomic Bomb.* U.S. Department of Energy, September 1994, page 1.

[24] Ibid.

[25] Ibid, page 2.

amount of energy for heat and power, while an unchecked reaction could create an explosion of huge force."[26] The binding energy of the nucleus so released would be tremendous, ten million times larger than the energy released by chemical reactions.[27]

As these scientific discoveries emerged, war was mounting in Europe. Scientists realized uranium fission made possible the creation of a new weapon, one with a potential for mass destruction, and the race to build the first atomic bomb began. Government-supported research intensified concentrating on isotope separation. After the bombing of Pearl Harbor on December 7, 1941, brought the U.S. into World War II, the urgency to develop atomic power intensified. The initial challenge before scientists was to create a practical demonstration of a chain reaction.

Upon the discovery of fission, early in 1939, Enrico Fermi immediately saw the possibility of emission of secondary neutrons and of a chain reaction. In 1938, Fermi was without doubt the greatest expert on neutrons, and he continued his work on this topic on his arrival in the U.S. He proceeded to work with tremendous enthusiasm, and directed a classical series of experiments which ultimately led to the atomic pile and the first controlled nuclear chain reaction. Physicists working at the University of Chicago under the direction of Arthur Compton achieved this goal on December 2, 1942. The experiment, which was conducted on a squash court located beneath the university's football stadium, successfully created a controlled nuclear reaction by specially arranging tons of uranium and graphite.[28]

In response to the need for atomic research, the U.S. government initiated the Manhattan Project, a top-secret effort to develop nuclear weapons. The COE was responsible for the project and establishing sites for uranium separation and the production of plutonium, which also had the ability to create an explosion. Sites associated with the Manhattan Project were established in Oak Ridge, Tennessee; Los Alamos, New Mexico; and Hanford, Washington. Research to support the project took place at universities, laboratories, and plants across the country. Universities as diverse as Columbia, the University of California at Berkeley, and the University of Chicago were key players.

It was discovered early on that the fission in uranium occurred primarily in uranium atoms of the lighter and rarer ^{235}U isotope, which accounts for less than one percent of natural uranium. In order to create a chain reaction using ^{235}U, scientists had to separate it from the heavier ^{238}U isotope and concentrate it into a critical mass. Scientific studies revealed various possible approaches for separating the uranium isotopes, and scientists heavily debated which process would be ultimately successful. In late 1942, the choice was narrowed to two methods, the electromagnetic process and the gaseous diffusion process. At this point, no one had ever separated uranium isotopes in any but micro-lab-scale quantities, and mass quantities were required for the development of atomic weapons.

The process of gaseous diffusion is based on the principle that lighter isotopes will pass through a porous barrier more readily than the heavier isotopes. The process begins with a form of uranium called uranium hexafluoride (UF_6). At room temperature, UF_6 is a solid, but when heated above 135 degrees Fahrenheit, it becomes a gas. The gas is then fed into a cascade system of porous membrane barriers with microscopic openings. The lighter ^{235}U isotope passes through the barriers more easily, and as the gas moves through multiple levels of the cascade system, the isotopes separate to create a higher concentration of ^{235}U in the upper barriers.[29]

The Manhattan Project used both gaseous diffusion and electromagnetic diffusion to create enriched uranium for atomic weapons. During the early 1940s, two plants were established in Oak Ridge, Tennessee, for these purposes: K-25 and Y-12. K-25 was the gaseous diffusion plant for the Manhattan Project. Built in 1943, K-25's general form assumed a U-shape and was composed of 54 contiguous four-

[26] Ibid.
[27] Jonathan Logan. "The Critical Mass," *American Scientist.* May–June 1996, page 264.
[28] C. Allardice and E.R. Trapnell. *The Atomic Energy Commission.* New York: Praeger Publishers, 1974, page 6-7.
[29] USEC Web site: www.usec.com.

story buildings. The complex was almost a half-mile in length and averaged 400 feet in width, and stood 60 feet tall. The total area for the main building alone encompassed 44 acres.[30]

First attempts at developing a viable barrier process met with failure, and K-25 was able to only partially enrich the uranium. At this point, the gaseous diffusion process was supported by the electromagnetic process of uranium enrichment at Y-12. The final and upper stages of the cascade system were eliminated as uranium was taken from the middle of the K-25 cascade process and used as feed for Y-12.[31] Meanwhile, research on the barrier process continued and improvements were made by 1944, and K-25 ultimately produced enriched product of suitable ^{235}U assay. Figure 11 shows a schematic of gas flow in gaseous diffusion cascade.

The efforts of the Manhattan Project resulted in the development of an atomic bomb, which the U.S. dropped on the city of Hiroshima, Japan, on August 6, 1945. Its power and devastation were unlike any seen before. Approximately 100,000 people were killed instantly and an additional 100,000 were fatally injured.[32]

The second and, so far, the last known nuclear weapon to be used in assault was detonated over Nagasaki, Japan by the U.S. on August 9, 1945. This weapon was code named the "Fat Man" due to a more generic term to describe the early designs of U.S. weapons. "Fat Man" was an implosion type weapon using plutonium.

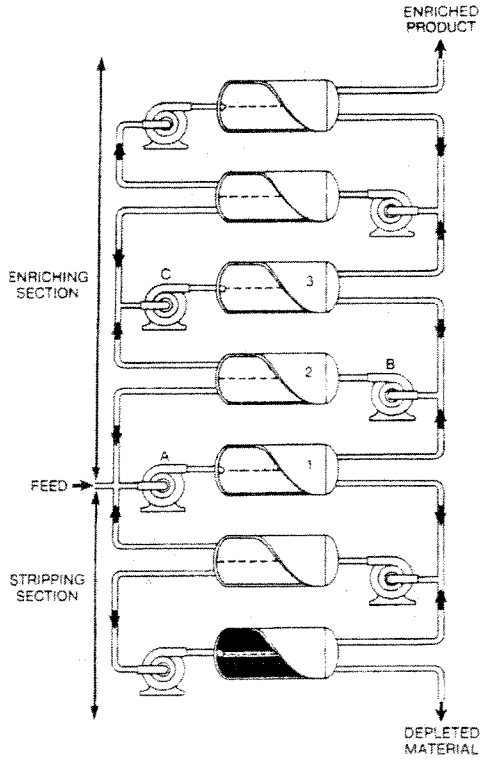

Figure 11. Schematic of gas flow in gaseous diffusion cascade
(diagram from The Manhattan Project: Making the Atom Bomb).

[30] R.G. Hewlett and O.E. Anderson. *The New World, 1939/1946: Volume I, A History of the United States Atomic Energy Commission.* University Park, Pennsylvania: Pennsylvania State University, 1962, page 123; G.O. Robinson, *The Oak Ridge Story.* Kingsport, Tennessee: Southern Publishers, 1950, page 81.

[31] Hewlett and Anderson, page 129.

[32] F. G. Gosling, page 51.

The bomb had a yield of about 20 kilotons, or 8.4×10^{13} joule = 84 TJ (terajoule), slightly more than the bomb known as "Little Boy" dropped on Hiroshima three days earlier. Due to Nagasaki's hilly terrain, the damage was somewhat less extensive than that in relatively flat Hiroshima. An estimated 40,000 people were killed outright by the bombing at Nagasaki, and about 25,000 were injured. Many more thousands would die later from related injuries, poisoning and nuclear fallout/radiation. The bombing led to the surrender of Japan and the eventual end of World War II.

3.4 AMERICA'S NUCLEAR PROGRAM AND THE COLD WAR

Following the end of World War II, the Atomic Energy Commission (AEC) was formed as a civilian agency to lead America's nuclear production, research, and management program. Civilian corporations, such as Union Carbide, managed atomic research and production facilities under the military. Although some plants of the Manhattan Project were shut down, K-25 continued to produce enriched uranium.

The introduction of the atomic bomb brought a new challenge to international relations. The U.S.' monopoly on atomic weapons did not last long. In 1949, Russia revealed that it too had successfully tested an atomic weapon. Unable to reach an agreement over arms control, the two superpowers locked into a relationship of mutual suspicion as each began to stockpile a nuclear arsenal. The mounting distrust between the two countries was fueled by fundamental differences in their political and social ideologies of communism and capitalism, and a global struggle emerged between the two philosophies. Known as the Cold War, this period of distrust and arms development between the Soviet Union and the U.S. continued until 1989.

A trigger to the Cold War was the "failure of the World War II allies to reach agreements on international controls respecting nuclear research and atomic weapons" immediately following the war.[33] Scientists in the U.S. broached the topic of arms control prior to the war's end. Aware that their counterparts in the Soviet Union were not far behind them in nuclear research, U.S. scientists advocated the formation of an international organization to prevent nuclear conflict as early as 1944. A peacetime policy of full publicity and cooperation was encouraged.[34]

In June 1946, the U.S. presented a formal proposal for the international control of atomic energy to the United Nations. Presented by statesman Bernard Baruch, the proposal was known as the Baruch Plan and it recommended that an international atomic development authority be created to control nuclear activities and to license and inspect nuclear projects. After the authority was established, all existing bombs were to be destroyed and no other bombs would be built. The Soviet Union quickly rejected the proposal, stating that all atomic weapons should be destroyed prior to the formation of the international authority. It maintained that the U.S. held an unfair advantage because of its existing stockpile of nuclear weapons. The U.S., on the other hand, argued that an international agreement must precede a reduction in arms. With both sides unwilling to compromise, the debate reached a stalemate. Relations between the U.S. and the Soviet Union continued to deteriorate and the U.S. continued to develop its nuclear arsenal.[35]

The political situation in Asia added fuel to the fire in the global struggle between communism and capitalism. In February 1950, the Soviet Union signed a treaty of alliance and mutual assistance with the People's Republic of China. During this period, tensions between communist North Korea and independent South Korea were escalating into war. On June 25, 1950, the North Korean army invaded South Korea. Five days later, U.S. forces entered the conflict to assist South Korea.[36]

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[33] Ibid, page 55.
[34] Ibid, pages 55-56.
[35] Ibid, pages 56-57.
[36] Richard Rhodes. *Dark Sun, The Making of the Hydrogen Bomb.* New York: Simon and Schuster, 1995, pages 434–437.

3.5 ESTABLISHMENT OF THE PADUCAH GASEOUS DIFFUSION PLANT

With America's participation in the Korean War and rising tensions with the Soviet Union, President Harry Truman decided to increase research and development of nuclear weapons. In the fall of 1950, the AEC embarked on a vast expansion program to meet these requirements and began construction of atomic energy plants across the country. These new nuclear production facilities included a feed materials center at Fernald, Ohio; a plant to produce large quantities of lithium 6 at Oak Ridge, Tennessee; gaseous diffusion plants in Portsmouth, Ohio, and Paducah, Kentucky; two large reactors and a separation plant for producing plutonium at Hanford, Washington; and five heavy-water reactors at the Savannah River site in South Carolina, for producing tritium from lithium 6, as well as plutonium. This three-year, three billion-dollar expansion would represent one of the largest federal construction projects in peacetime history.[37]

On October 9, 1950, President Harry Truman approved a recommendation from the National Security Council to increase the production capacity of ^{235}U. The design of the new plant was contracted to the Carbide and Carbon Chemicals Division of Union Carbide and Carbon Corporation with assistance from the firm of Giffels and Vallet Inc.[38] The council initially identified eight potential sites for the establishment of the new uranium enrichment plant. In Arkansas, two sites were identified, one on the White River in the north section of the state, and another at Fort Smith on the Arkansas River. Two sites were identified in Louisiana: the Ouachita River at Sterlington and the Red River at Shreveport. In Kentucky, four sites were examined: the Green River near Bowling Green, Wolf Creek in the eastern section of the state, and sites on the Ohio River at Owensboro and Paducah.

The site selection was first limited to locations already owned by the federal government in order to maintain secrecy and avoid the unnecessary purchase of private property. The survey was also limited to areas where large quantities of coal or oil could be obtained at reasonable cost. The site criteria were refined to include a reserve power capacity of about 330,000 kilowatts available within a year and about half that capacity available for construction; that the site be located within 1000 miles of Oak Ridge, Tennessee; that approximately 1000 acres of suitable building land and 4000 acres of perimeter be available for security reasons; that it should be near an urban center capable of producing a workforce of 10,000 men and 1500 operators; and that transportation facilities be available at reasonable cost.[39]

The application of this site selection criteria resulted in the preference for two sites previously studied; the KOW at Paducah and the Louisiana Ordnance Works at Minden, Louisiana. A third site, the Longhorn Ordnance Works near Marshall, Texas, was also seriously considered. Of these three sites, the KOW at Paducah was preferred because it was more readily available and was the most favorable government site located within the strategically preferred area of the country (Figure 12).[40] The selection committee that visited the site was impressed by the amount of land owned by the federal government, by the geographical advantages for water from the Ohio River, and by electricity from the hydropower of the nearby Kentucky Dam. Finally, the site was promoted by the Vice President of the U.S., Paducah native, Alben Barkley.[41] On October 19, 1950, Gordon Dean, Chairman of the AEC, wrote Frank Pace Jr., the Secretary of the Army, and requested that the "portion of the KOW that is still owned by the Department of the Army be transferred to the Atomic Energy Commission."[42]

Although there was available power from the Kentucky Dam and TVA, the projected 850,000-kilowatt daily demand of the new plant would require new generating sources. In November, the AEC determined that TVA should be responsible for supplying electric power to the new plant and that funds

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[37] *Historical Records of the Atomic Energy Commission.* DOE, Washington, DC, page 1.

[38] Ibid, page 5.

[39] Ibid, pages 6-7.

[40] Ibid, page 7.

[41] Kristopher Durfee. *Why Paducah?: An analysis of the Selection Site for the Gaseous Diffusion Plant in Paducah, KY*" 2003, page 2. Manuscript on file at the McCracken County Public Library, Paducah, Kentucky.

[42] Ibid, page 8.

be appropriated to the agency for this purpose. The TVA worked with five energy companies to provide interim power requirements while the new plant was under construction. The new plant, a steam-electric plant, was planned for a site just north of the proposed gaseous diffusion plant adjacent to the Ohio River. Named the Shawnee Steam Plant, this new plant was estimated to cost $184 million.

In early December 1950, the selection of the Paducah Site was announced and a contractor to build the plant was approved. A telegram from Washington DC, to the *Paducah Sun-Democrat* made the official announcement on December 14, resulting in front-page news (Figure 13). The contractor chosen to build the plant was F. H. McGraw and Company of Hartford, Connecticut. The AEC chose the company because of their qualified personnel and because of their experience with building large projects. Operation of the plant would be the responsibility of the Carbide and Carbon Corporation, which also operated the K-25 gaseous diffusion plant at Oak Ridge. Construction costs were estimated at $500 million. On December 16, TVA officially announced that it would build a four-unit steam plant near the Paducah installation to supply electricity.

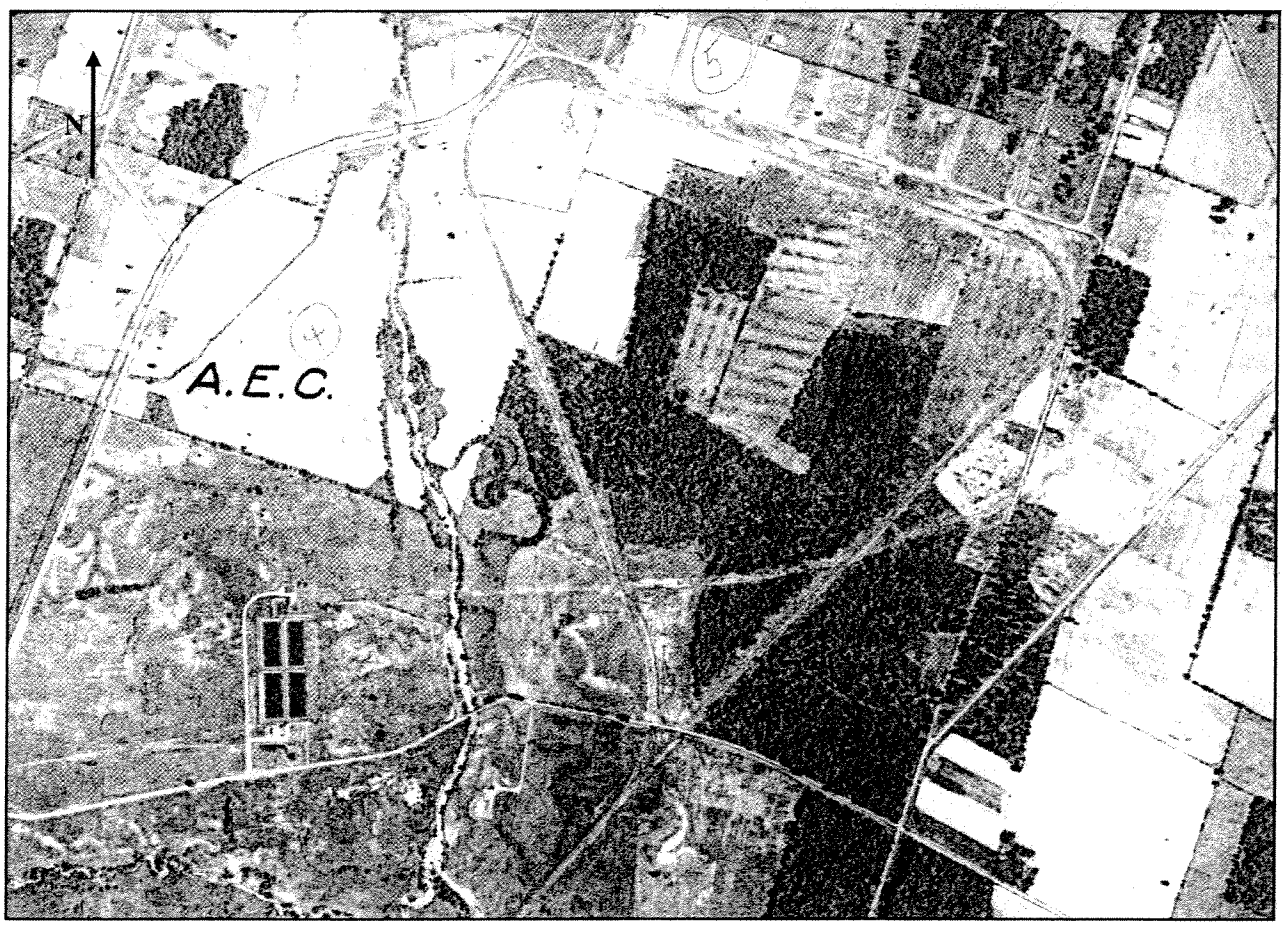

Figure 12. May 1950 aerial photograph of the PGDP site is shown as farmland and woodlands. The four sewage lagoons of the KOW water treatment plant are shown in the lower left of the photograph. This facility was retained for use in the PGDP operations *(Photograph on file at the McCracken County Property Valuation Office, Paducah).*

The Paducah Sun-Democrat

AEC To Build A-Plant At KOW Site

Chinese Reds Drive Into UN Beachhead

Building Force Of 10,000 May Be Required

Cost Set At $500,000,000; 1,600 Permanent Jobs Expected

Figure 13. Front page of *The Paducah Sun-Democrat* Newspaper, December 15, 1950.

Construction at the site began in early January 1951 with the demolition of KOW buildings and the repair of the abandoned KOW railroad line. Also in January, TVA started acquiring property just north of the plant site for the construction of the Shawnee Steam Plant. Already owning the 4000-acre KOW site, the AEC purchased an additional 3335 acres for the construction of the gaseous diffusion plant. The majority of the property was purchased by the federal government from February through May 1951. Approximately 120 tracts of property were acquired during these months. In September, the federal government also purchased over 150 transmission line easements for the construction of the electrical towers.[43]

Work on PGDP began immediately with groundbreaking activities starting January 2, 1951 (figures 14 through 20). The plant cost an estimated $800 million and the plant was in operation by September 1952. Construction continued at the plant until 1954.

Before PGDP was completed, the U.S. government began construction on a similar plant in Portsmouth, Ohio. Land was purchased for the Portsmouth plant in 1952 and initial operations began in 1954. Peter Kiewett Sons of Nebraska served as construction contractor for the plant, which was completed in 1956. Goodyear Tire and Rubber Corporation was selected to operate and manage the Portsmouth plant.

Construction of the gaseous diffusion plant in Paducah had a tremendous impact on local and regional economic, commercial, and industrial development. Initial construction required some 20,000 workers, and the plant created an additional 1600 permanent jobs in the area (Figure 21). The construction of two steam power plants in the area to supply the new plant with electricity created even further employment opportunities. The gaseous diffusion process consumes an enormous amount of energy, and existing power supplies were not sufficient. To meet this demand, TVA constructed the Shawnee Steam Plant adjacent to the AEC property for a reported $84,000,000, and Electric Energy, Inc. constructed the Joppa Steam Plant along the banks of the Ohio River in Illinois (Figure 22).[44] In 1953, PGDP used a

[43] *McCracken County General Index to Deeds, Grantees, N to Z, 1939–1961.* McCracken County Courthouse, Paducah, Kentucky.

[44] Ibid; John E.L. Robertson. *Paducah, 1830–1980, A Sesquicentennial History.* Paducah, KY: Image Graphics, 1980, page 103.

reported 9,772,912 megawatt hours of electricity and spent over $49.5 million for its power supply.[45] In 1958, the Honeywell Corporation constructed a large chemical plant in nearby Metropolis, Illinois, which supplied the Paducah plant with forms of uranium.

The construction of the diffusion plant and the two related electrical plants were the subject of numerous strikes that made national headlines. A total of 175 strikes were recorded at the three facilities between January 1951 and October 1953. Numerous investigations sought to identify the underlying causes of these strikes, with theories pointing toward Communist infiltration, organized crime, and disputes within the labor organizations themselves. Sixty of these strikes occurred at the construction of the Joppa steam plant, resulting in the loss of nearly two million man-hours.[46] The original contractor for this plant was fired in July 1953 and all workers were dismissed. Electric Energy Inc., the operators of the plant then hired the Bechtel Corporation, which began work in August. Strikes continued to plague the plant and a union official's home in Paducah was bombed as part of the dispute. Collier's Magazine noted "The sparks that set off the strikes were many, most of them so trivial that Paducah has the sorry distinction of having had some of the most pointless strikes in all U.S. labor history."[47] All three of the plants were eventually finished, but many months past schedule, and much costlier than originally estimated.

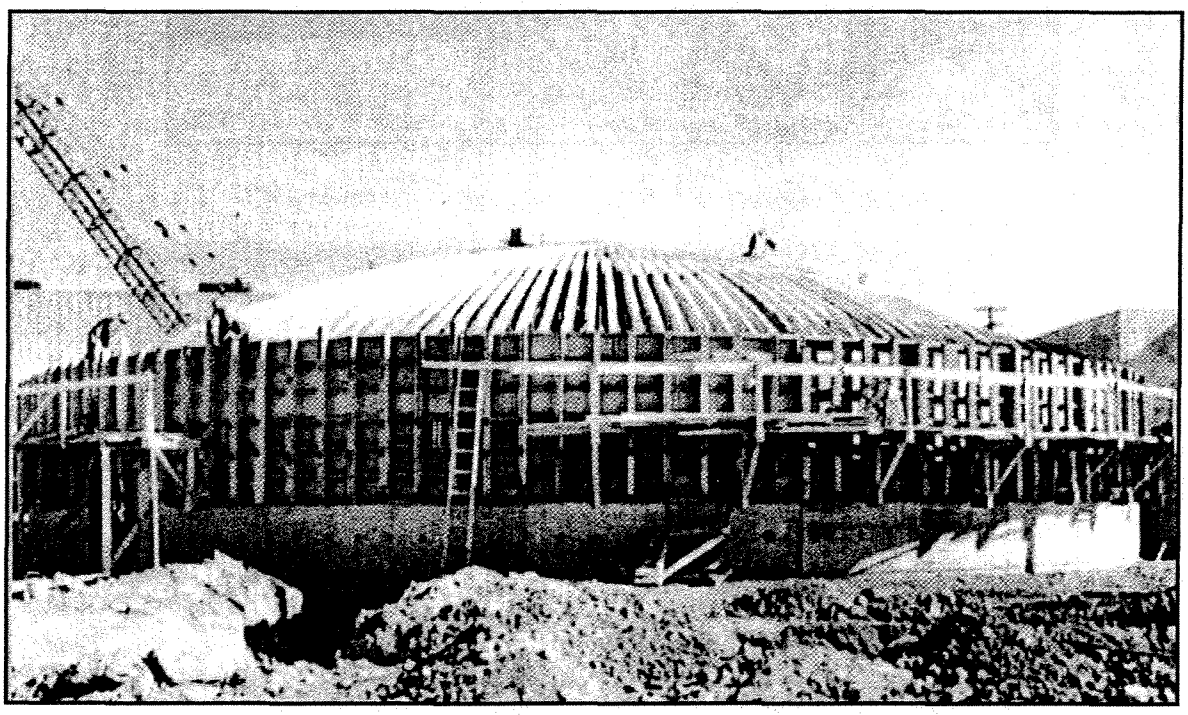

Figure 14. Construction of PGDP began in 1951. Building C-300 was designed as the plant's main control and operation facility.

[45] "A Fantastic Power User." *The Paducah Sun-Democrat*, April 17, 1953.
[46] "Rule By Strike – A Case History," *U.S. News and World Report*. October 9, 1953, page 86.
[47] Joseph F. Dinneen. "The Scandal of the Paducah Atom Project." *Collier's Magazine*, June 20, 1953, n.p.

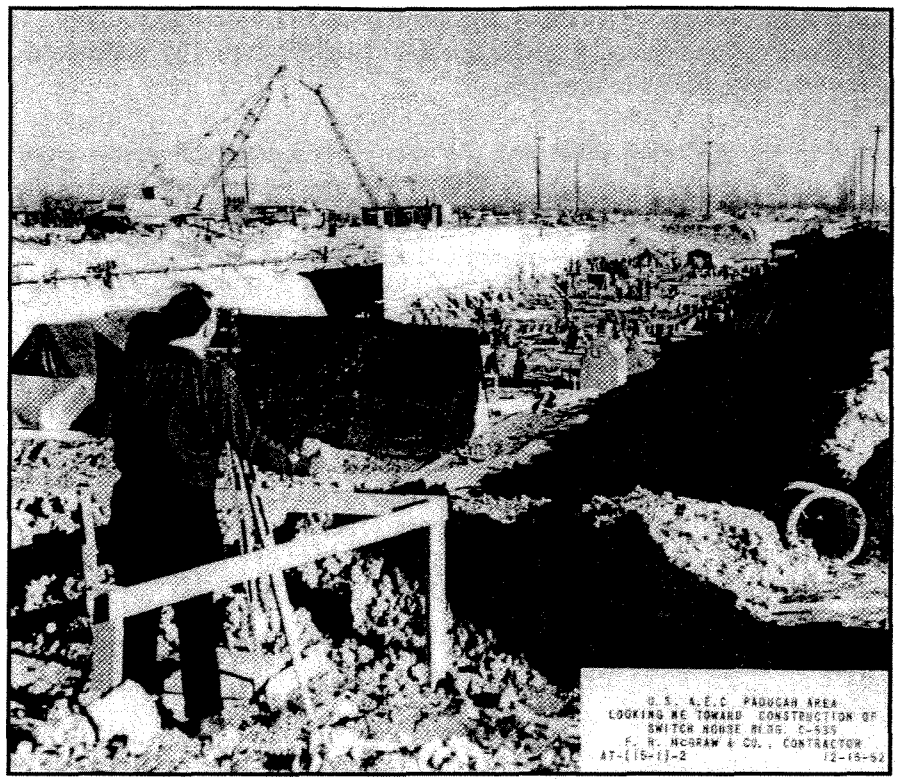

Figure 15. Construction activity at the plant in December 1952.

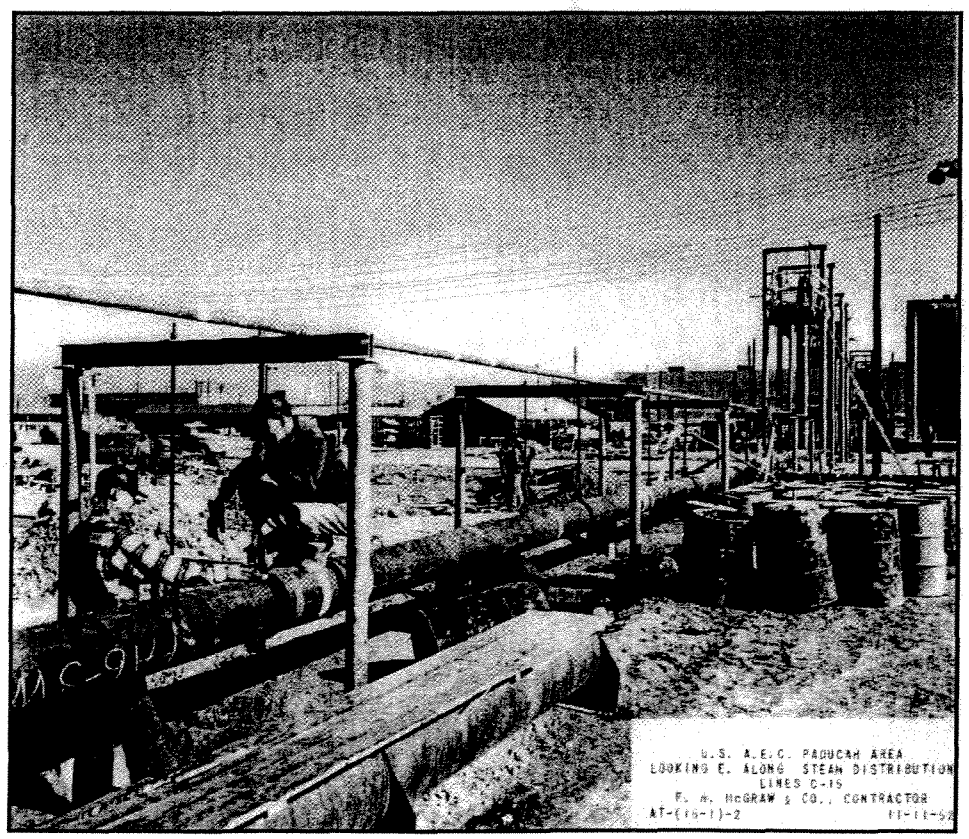

Figure 16. Some of the hundreds of miles of steam lines in December 1952.

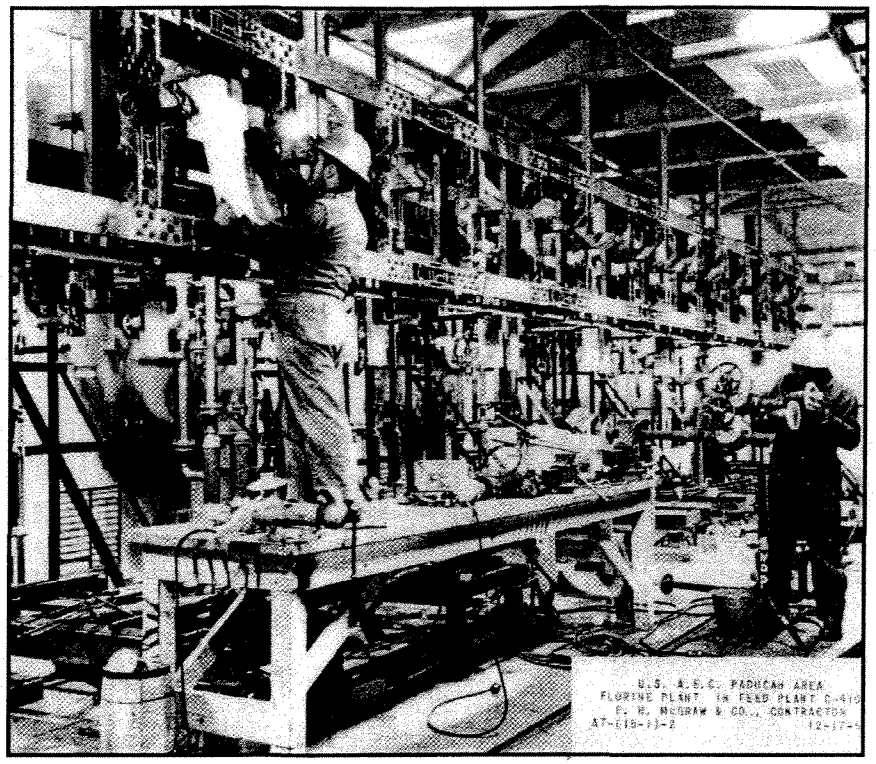

Figure 17. Construction of the fluorine cell room electrical buss work in the C-410 Complex in December 1952.

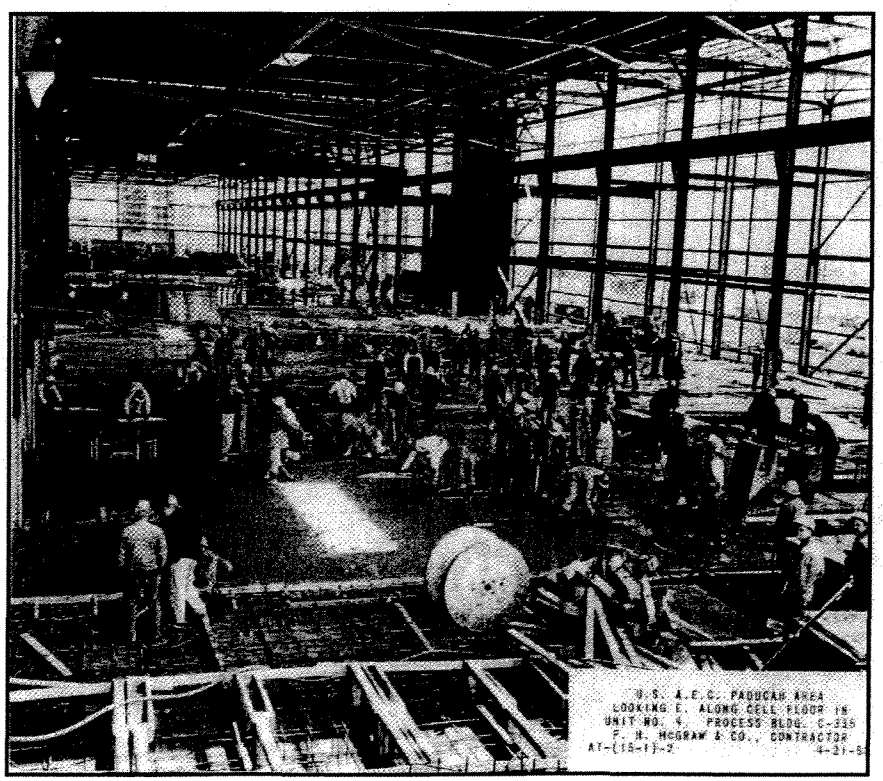

Figure 18. Construction work on the interior of Building C-335 in April 1952.

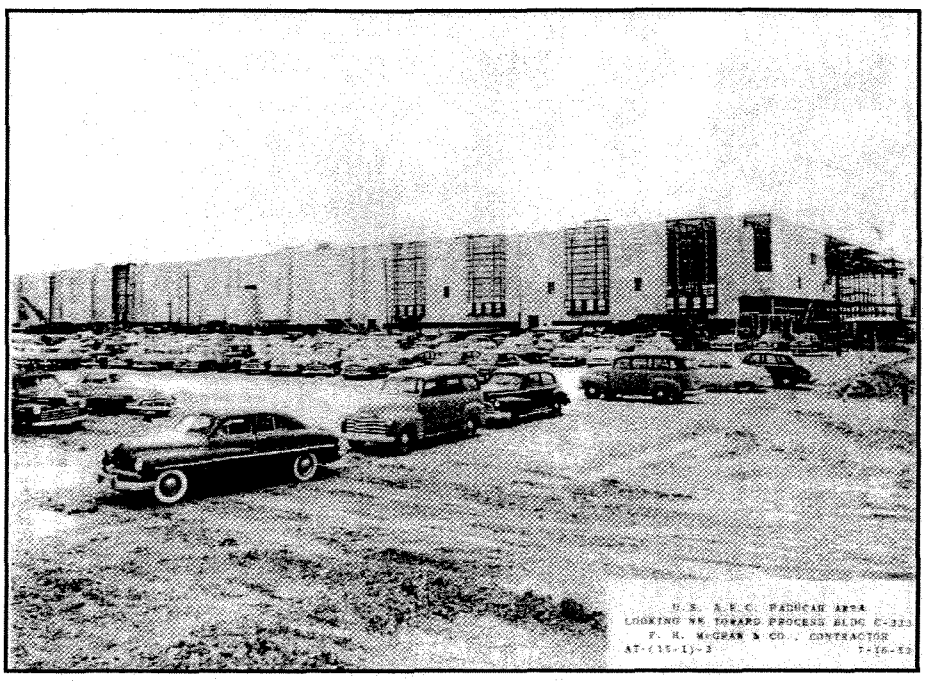

Figure 19. Construction of process building C-333 in July 1952.

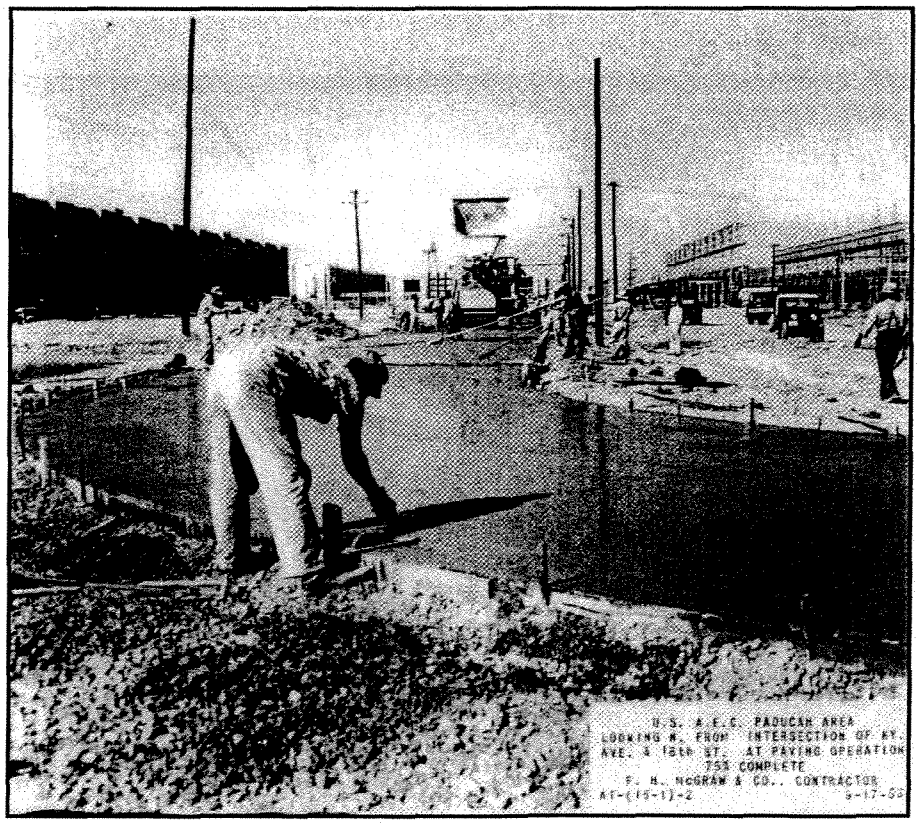

Figure 20. Paving plant roads with concrete in September 1953.

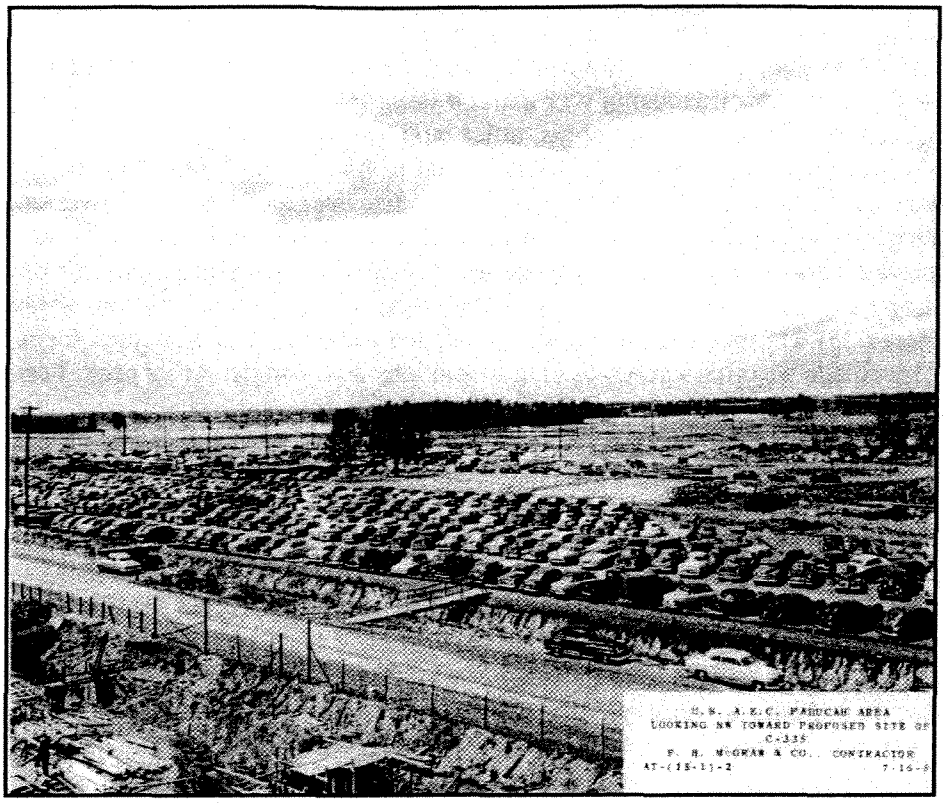

Figure 21. The intensity of the construction site at PGDP is shown in this July 1951 photograph.

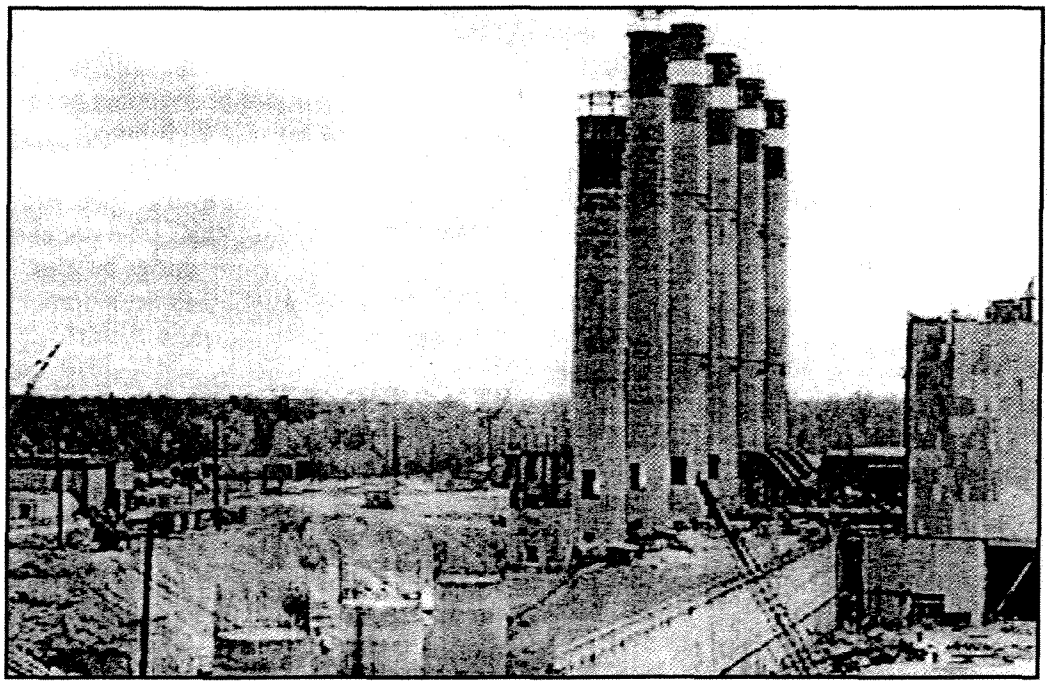

Figure 22. TVA's adjacent Shawnee Power Plant was completed in 1953 to fulfill half of the Paducah plant's power needs.

News of the plant spread quickly and the promise of jobs drew people to Paducah by the thousands. With a population of 33,000 in 1950, Paducah, as well as the gaseous diffusion plant itself, nearly doubled in size within three years. Housing was a major issue for the burgeoning town. Surplus housing was sold quickly, and locals rented spare rooms, attics, and even outbuildings. Trailer courts sprang up around the town's perimeter and some people were forced to live in tents. The AEC built a 1000-room temporary barracks at the plant site in 1951 to accommodate workers, and the government provided funding for hundreds of apartment buildings and at least 175 houses. Hundreds of other houses were constructed by private companies. Local entrepreneur, Forrest Harman, purchased 250 portable flattop houses that had originally been used at Oak Ridge, Tennessee, during the construction of that city during World War II (Figure 23). Harman had the buildings shipped to Paducah and situated them on land near the plant site.[48] The village was first known as Flattop and later Forrestdale. At its peak, Forrestdale had a population of 1500 residents.

Work at the plant drew people from across the country and many drove long distances daily to come in for a shift. F. H. McGraw, the contractor for the plant, published a map detailing driving distances. The longest of these was a 232-mile round-trip from Illinois, which people traveled in a car pool to work a ten-hour shift.[49] The influx of people also created an enormous traffic problem. Cars along U.S. Highway 60, the main road through the area, were bumper-to-bumper most of the time. Traffic in and out of the plant, particularly at shift changes, was phenomenal. An estimated 12,000 cars came to and from the plant every 24 hours. The busiest time was in the afternoon when around 8000 cars poured out of the plant at the end of the day shift. Many secondary roads were still gravel or dirt when construction on the plant began, and dust and mud commonly covered cars and houses. Road improvements came by 1952 as the main access road to the plant and other nearby roads were paved and new arteries were constructed from U.S. Highway 60.[50]

Businesses in the Paducah area also boomed to accommodate the growing population. Retail sales soared, rising from $44 million in 1950 to $94 million in 1953. Businesses expanded and had to hire extra help to meet the growing demand. Banks hired extra clerks in order to process the thousands of payroll checks, as workers lined up for blocks. In 1951, Paducah stores and shops elected to stay open until 8:30 p.m. rather than the normal 5:00 p.m., one-night-a-week. Throngs of people mobbed area stores, and customers often had to stand in line an hour to get waited on. Several new businesses opened as well. Five new drive-in movie theaters opened in the area, and an eight-store, million-dollar shopping center was constructed. Several individuals opened used car lots, many on the front lawn of their home.[51]

The arrival of the plant was often a burden, as well as a blessing, as almost every aspect of life was affected by the massive influx of people. As one local resident stated: "At first, things did not change. But as the construction got underway, change came with lightening speed. The communities in West McCracken County, and other areas as well, were not equipped to handle all the people, automobiles, housing, etc."[52]

Paducah and McCracken County schools, which were already overcrowded, had to accommodate an additional 4000 students. Citizens approved a bond issue for school expansion, and a large new high school was constructed in 1953. The AEC established two temporary school buildings in the plant area, both of which were prefabricated metal structures, but the county paid for staff and supplies. The city finally received federal financial aid in 1953, and expansions and improvements were made to several area schools.

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[48] "The Growing Pains and Successes of a Real Boomtown," *The Paducah Sun*, October 19, 2002, page 6; "Paducah Changes its Way of Life," *Life*, vol. 33, no. 2, July 14, 1952, pages 21–24.

[49] Ibid., *The Paducah Sun*, October 19, 2002, page 9.

[50] Ibid., 9; *Life*, vol. 33, no. 2, July 14, 1952, page 23.

[51] "The Growing Pains and Successes of a Real Boomtown," *The Paducah Sun*, October 19, 2002, pages 6–9.

[52] "Welcome to the Atomic City," Paducah Gaseous Diffusion Plant promotional brochure, 2002.

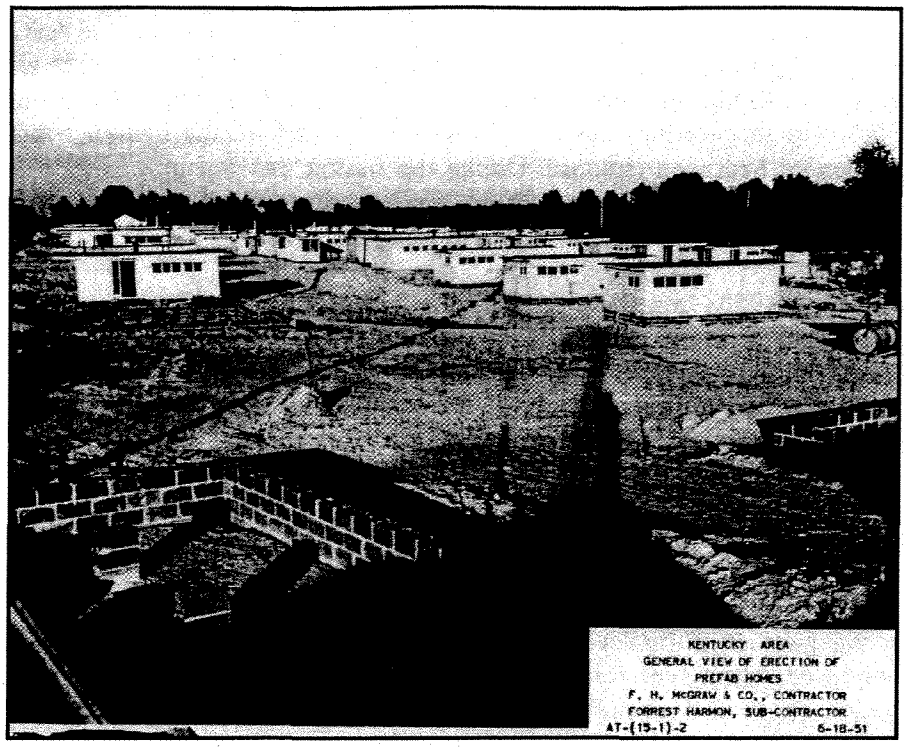

Figure 23. The lack of housing in the Paducah area led to the erection of hundreds of temporary buildings. These flattops were transported to the Paducah area from Oak Ridge in 1951.

Public services, such as, mail delivery, water and sewer systems, and utility systems were strained and had to be expanded to accommodate the growing population. Paducah's city government paid for a new water treatment plant through a bond issue resulting in a doubling of the city's water system in 1953.[53] Local police and fire departments were also enlarged. Paducah's only public hospital, Riverside, also became taxed after a baby boom occurred in 1952. The 110-bed facility overflowed as its patient-count rose to nearly 175 per day. Patients were sent home as early as possible, and beds and cots were arranged in hallways and sun porches. A small expansion in late 1952 provided room for ten additional beds, and in 1953, the new Western Baptist Hospital was constructed.[54]

After the plant was opened, newspaper reporters with the *Paducah Sun-Democrat* were allowed to visit and describe the plant and its operations. After becoming operational, the plant had 25 acres of switchyards, which was the "largest assemblage of such equipment in the world."[55] Power of 161,000 volts entering the switchyards were reduced to 14,000 volts and this electricity was transferred to the plant buildings via 100 miles of underground cables. The electrical system contained 25,000 tons of steel and 10,000 tons of copper. The plant was reported to use 4 percent of all of the electrical power produced in the U.S. An estimated 10,000 miles of control cables ran through the plant. About 340 million gallons of water were circulated through the system every day to remove excess heat generated from the diffusion process.

When the plant was fully operational, it was described as operating as its own "city." A 1956 newspaper article stated that, "The 'mayor' is the plant superintendent. The legislative council includes seven department heads. The 1800 employees...are the municipal workers. The atomic city maintains a police force, fire department, hospital, library, laboratory and newspaper."[56]

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[53] Robertson, *Paducah, 1830–1980*, page 107.
[54] "The Growing Pains and Successes of a Real Boomtown," *The Paducah Sun*, October 19, 2002, page 9.
[55] "Inside the A-Plant," *Paducah Sun-Democrat*, April 17, 1955.
[56] "Atomic plant made Paducah double," *The Paducah Sun*, September 15, 2000, page 5.

Enriched uranium from both the Portsmouth and Paducah plants was shipped to Oak Ridge for production of nuclear weapon components. As the Cold War continued, the arms race also escalated as both the U.S. and the Soviet Union worked to develop the hydrogen bomb. Dubbed the "H-bomb" or "super" bomb because of its potential power for massive destruction, the hydrogen bomb derives its energy from the fusion of hydrogen isotopes. Unlike the fission that uranium isotopes undergo in the development of atomic weapons, which involves the separation of lighter from heavier isotopes, fusion involves the joining together of lighter elements into heavier elements.

Throughout the late 1950s and early 1960s, PGDP continued to produce enriched uranium for atomic weapons. During these years, the plant employed over 2000 workers annually and it was (and still is) the largest employer in the Paducah region. The enriched uranium produced by the plant continued to be used primarily for nuclear weapons until 1964 when the Atomic Energy Commission determined that sufficient stockpiles had been accumulated for nuclear weapons production. After this date, the enriched uranium produced at the plant was shifted to commercial nuclear plants. The two "sister" plants in Portsmouth, Ohio, and Paducah, worked together to provide enriched uranium for use in nuclear power plants.

In 1969, enrichment of uranium was achieved by a centrifugal extraction process and the need for enriched uranium via gaseous diffusion lessened. As the centrifugal process and other technologies became more widely used, uranium enrichment from gaseous diffusion became less and less economical. Also, in these decades, concerns over radioactive contamination as a byproduct of the gaseous diffusion process increased. The K-25 plant in Oak Ridge, Tennessee, stopped uranium enrichment production in 1985 and was permanently shut down in 1987.

The Energy Reorganization Act of 1974 created the Nuclear Regulatory Commission; it began operations on January 19, 1975. The NRC was formed to regulate nuclear facilities for public health and safety. In 1984, Martin Marietta Energy Systems, Inc. (later Lockheed Martin) took over Contractor-operation of the Paducah plant; and in July 1993, USEC, a subsidiary of USEC Inc., assumed Contractor-operation of both the Paducah and Portsmouth plants. In 1992, Congress passed the "Energy Policy Act," which established the USEC as a government-owned corporation for the purpose of operating the nation's uranium enrichment enterprises. In 1996, the President signed into law, "The USEC Privatization Act," through which USEC became a private corporation. In May 2001, the USEC ceased enrichment activities at the Portsmouth, Ohio, plant and consolidated its Contractor-operations at the Paducah site.

4. ARCHAEOLOGICAL RESOURCES

A Phase I archaeological reconnaissance was conducted in 1993 in McCracken County, Kentucky by Archaeology Resources Consultant Services Inc. of Louisville, Kentucky. The reconnaissance was part of an Environmental Assessment by Martin Marietta Energy System, Inc. which was proposing to design and construct a solid waste landfill at PGDP. The entire project area was approximately 40 acres located directly north of the C-746 S & T landfill. The reconnaissance identified two historic sites.[57]

Table 1 contains information on the two recorded sites identified during the Phase I archaeological reconnaissance conducted in 1993. The results of the reconnaissance recommended that no further archaeological work be performed associated with the design and construction of a solid waste landfill at these two historic sites; 15McN92, Deep Well Site and 15McN93, Jet Black Pond Site. Concurrence with the findings and recommendations in the report was documented in a letter from David L. Morgan, Director; Kentucky Heritage Council and State Historic Preservation Officer to John Young, CDM Federal Programs Corporation; dated July 2, 1993.[58]

In addition, an extensive area owned by various federal agencies was the subject of an archaeological investigation completed in 1993. Conducted by the Cultural Resources Division of Geo-Marine, this study was initiated under a contract with the Nashville District COE. A survey of 1653 acres was carried out during 1993 in order to meet the legal requirements of the National Historic Preservation Act, as amended; the Archaeological Resources Protection Act of 1979; and other federal legislation. The archaeological investigation was one phase of a larger project designed to identify and document environmentally sensitive resources at property owned by the COE, TVA, and the DOE.

Within the 1653 acres investigated under this effort, 41 sample survey units were investigated resulting in the recordation of seven pre-historic and four historic sites (Figures 24 and 25).[59] With one exception, all sites exhibit some degree of disturbance, ranging from light to heavy. Archival research and informant interviews were conducted prior to the initiation of fieldwork. The results of these investigations were used to predict site locations and to relocate previously recorded sites. Of the two previously recorded prehistoric sites, and three unregistered prehistoric sites reported within the 41 sample units, one of the previously recorded sites and one of the unregistered sites were located. In addition to the prehistoric sites, 17 potential historic sites were identified through archival sources. Four of these sites were located, recorded, and assigned state site numbers. Four sites were located, but were classified as localities due to the limited amount of cultural material remaining at these locations. No evidence of the remaining nine potential historic sites was observed. All nine sites were located in areas that have been heavily disturbed by the construction of the KOW and PGDP. These nine sites have little or no possibility of any remaining contextual integrity.

Table 1 contains information on the 11 recorded sites within the project area of the 1993 COE study. Of these, two prehistoric sites, 15McN37 and 15McN99, are recommended as eligible for listing on the NRHP. A third prehistoric site, 15McN98, and one historic farmstead site, 15McN94, are recommended for additional testing to determine their National Register eligibility.

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[57] *A Phase I Archaeological Reconnaissance on the Solid Waste Landfill (ESO-18007) at the Paducah Gaseous Diffusion Plant in McCracken County, Kentucky.* Report prepared by Martin C. Evans; Louisville, KY, April 1993 (revised June 1993).

[58] Letter from David L. Morgan, Director; Kentucky Heritage Council and State Historic Preservation Officer to John Young, CDM Federal Programs Corporation; dated July 2, 1993; Re: *A Phase I Archaeological Reconnaissance on the Solid Waste Landfill (ESO-18007) at the Paducah Gaseous Diffusion Plant in McCracken County, Kentucky* by Martin C. Evans.

[59] *Environmental Investigations,* Department of the Army, page 1.

In addition to these sites, 12 localities were also recorded during this survey. Localities are limited artifact scatters that do not contain enough cultural material or are of insufficient age to be recorded as sites. Generally, locations that contain only one or two prehistoric artifacts, limited historic artifact scatters that cannot be associated with existing structures or ruins, or structural remnants that are less than 50 years old, are recorded as localities. Three of the localities recorded during the survey contain isolated prehistoric material; one is a debris pile, five are foundation remnants, and three are limited scatters of historic artifacts. None of these localities meet National Register criteria.

Table 1. Tabulated results on the 1993 archaeological surveys.

Site Number	Prehistoric	Historic	NR-Eligible	Comments
15McN37	√		Yes	Not on DOE property. This site contains an extensive lithic artifact scatter from the Mississippian period. This previously recorded site was determined eligible for the National Register by Southern Illinois University in 1981.
15McN92		√	No	On DOE property. The site contained a small amount of late nineteenth-early twentieth century residential artifacts.
15McN93		√	Unknown	On DOE property that is leased to the WKWMA and is the responsibility of the COE. The site contained a small amount of late nineteenth-early twentieth century residential artifacts.
15McN94		√	Unknown	Not on DOE property. Site of a nineteenth-century farmstead associated with the Samuel Gray family. Concrete house foundations remain at this site. The COE recommended additional archival research and text excavations to determine National Register eligibility.
15McN95		√	No	Not on DOE property. Site of a nineteenth-century farmstead with limited potential for intact archaeological deposits.
15McN96		√	No	Not on DOE property. Location of an early twentieth-century farmstead with limited cultural remains.
15McN97	√		No	Not on DOE property. Site of a limited lithic scatter and no subsurface artifacts or features were observed.
15McN98	√		Unknown	Not on DOE property. This Late Archaic site is adjacent to Bayou Creek and has a high density of artifacts and evidence of potentially intact features. The COE recommended further testing for this site.
15McN99	√		Yes	Not on DOE property. Late Archaic site containing a large number of artifacts and with possible undisturbed and stratified archaeological deposits. This site is considered National Register-eligible and the COE recommended further testing.
15McN100	√		No	Not on DOE property. This site has a small lithic scatter with no subsurface material observed.
15McN101		√	No	Not on DOE property. Site of an early twentieth century farmstead associated with the Long family. Site consists of concrete foundations and a well.
15McN102	√		No	Not on DOE property. This site has a small lithic scatter with no subsurface material observed.
15McN103	√		No	Not on DOE property. This site has a small lithic scatter with no subsurface material observed.

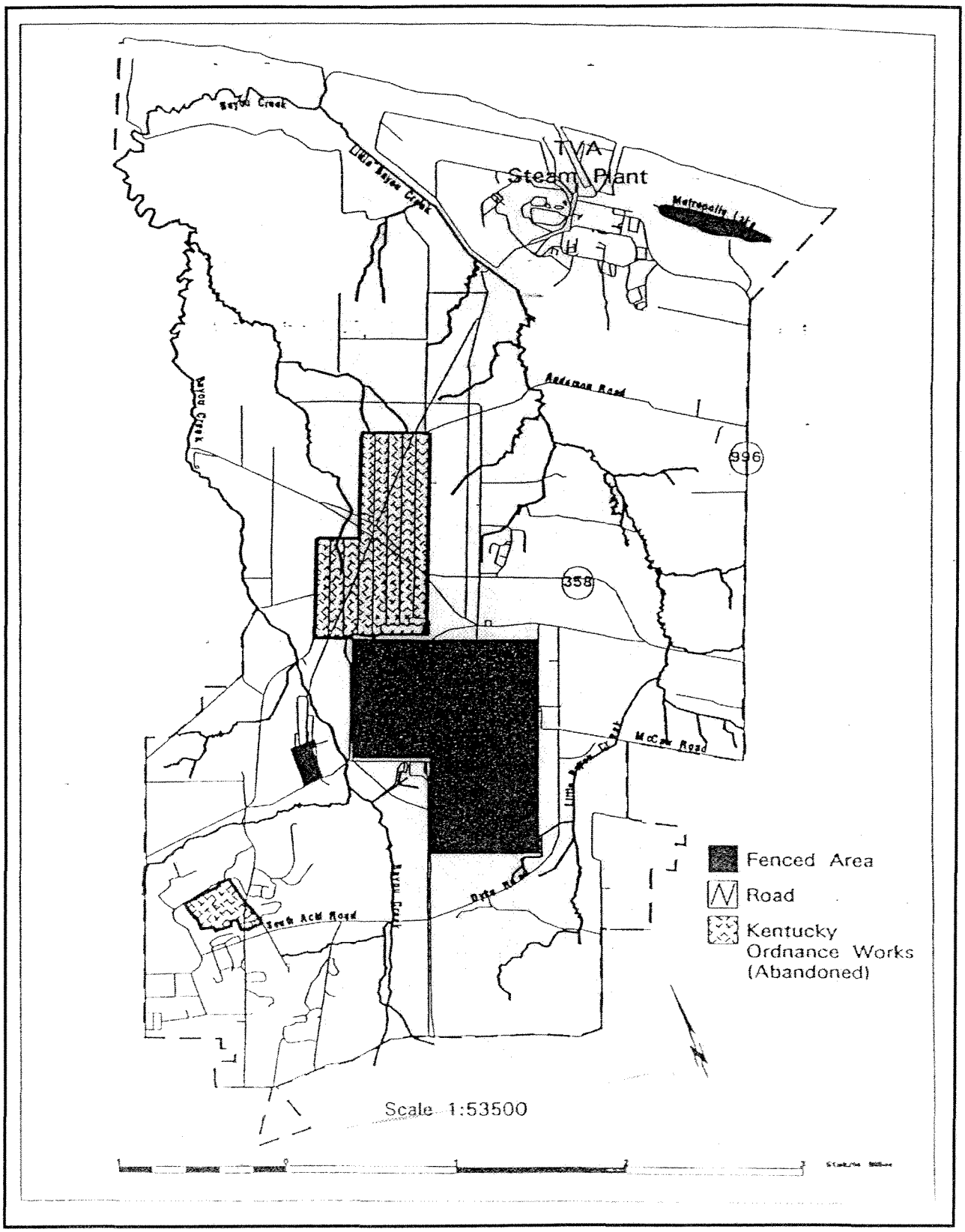

Figure 24. Area covered during the 1993 archaeological survey.
No testing was completed within the areas of the KOW site or PGDP *(Map courtesy of COE).*

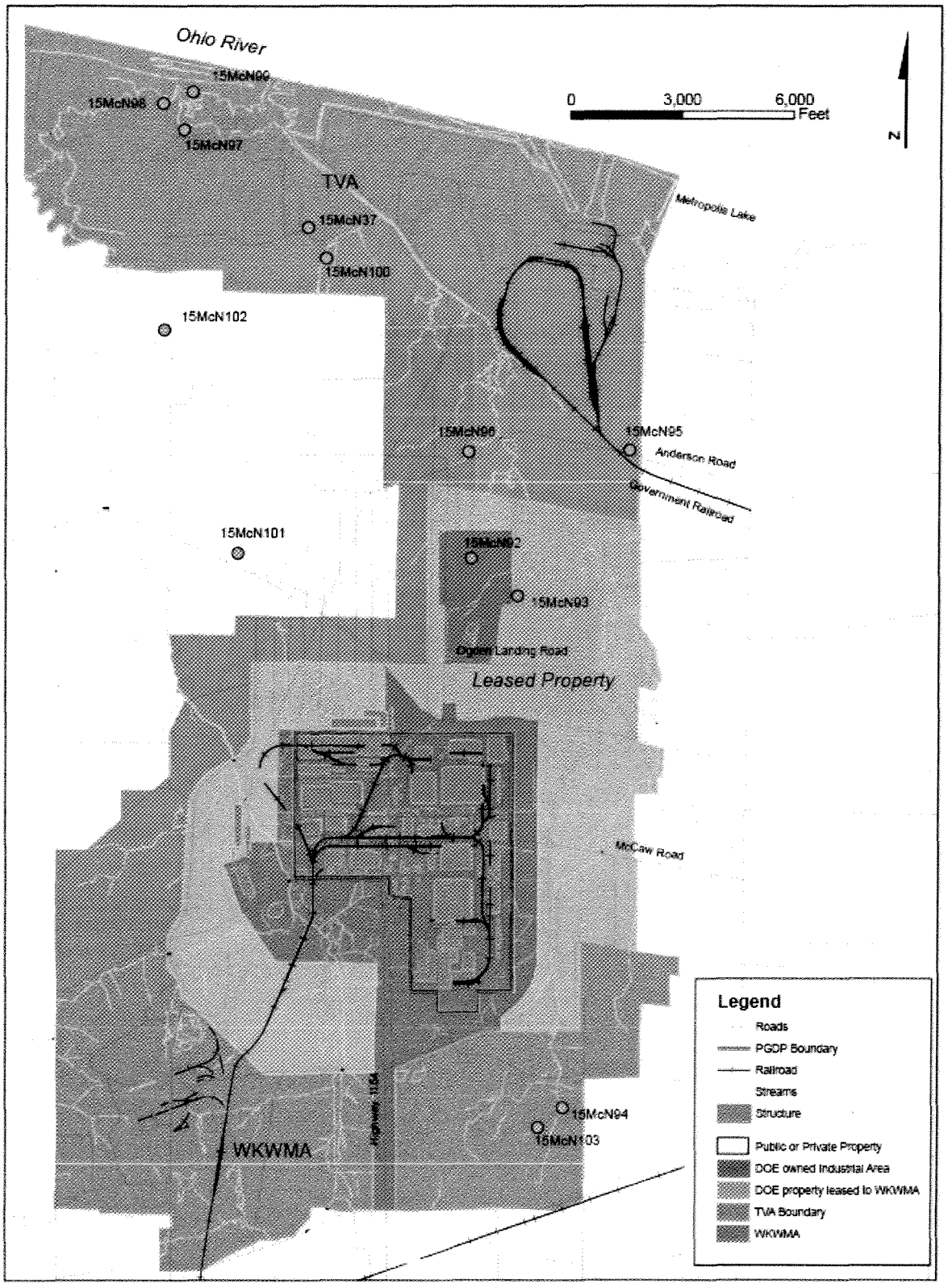

Figure 25. Site locations from the 1993 archaeological survey.

5. NATIONAL REGISTER EVALUATION

The property now within the Contractor-operations of PGDP contains an area that meets eligibility requirements for listing on the NRHP. This historic district is representative of the history of this federally owned property in McCracken County, Kentucky.

The PGDP is significant under National Register criterion A and criteria consideration G for its significance within the historic contexts of military and industry. Since placed in operation in 1952, the plant has continuously supplied enriched uranium for military and commercial uses for over 50 years. The plant was one of three gaseous diffusion plants constructed in the U.S. in the 1940s and 1950s, and these plants provided the bulk of the enriched uranium utilized in America's nuclear weapons and commercial operations. The PGDP is the only gaseous diffusion plant remaining in operation in America.

The PGDP was constructed in the early 1950s in response to national security demands brought on by the Cold War. The inability to reach an agreement on international nuclear arms control resulted in strained relationships between the U.S. and the Soviet Union following World War II. Distrust between the two nations mounted and both responded by accelerating the development of nuclear weapons. The method of gaseous diffusion had proven to be the most effective method of uranium enrichment, and in an effort to build up its nuclear production, the U.S. established the Paducah, Kentucky, and Portsmouth, Ohio, gaseous diffusion plants in addition to its existing K-25 plant in Oak Ridge, Tennessee.

The U.S. government established PGDP in the early 1950s to produce enriched uranium for the production of nuclear weapons, which were deemed necessary for national defense. During this period, the Paducah plant, along with its sister plant in Portsmouth, Ohio, and the original K-25 plant in Oak Ridge, were the only sources for uranium enrichment in the U.S. These three plants played a significant role in the nation's defense efforts of the Cold War era. The plant continued to supply enriched uranium for weapons production until 1964 when the stockpile of nuclear weapons was deemed sufficient for deterrence.

The PGDP is also significant in the area of industry for its role in the growth and development of commercial nuclear power. Harnessing atoms for electric power in the U.S. dates to the Atomic Energy Act of 1954, which allowed private industry to own and operate reactors.[60] The first demonstration project for nuclear energy took place in September 1954 when construction began on a 60,000-watt plant in Shippingport, Pennsylvania, near Pittsburgh. Nuclear energy was widely touted as a clean and safe form of electricity in the 1950s and 1960s. This optimism was reflected by AEC Chairman, Lewis Strauss, who predicted that "It is not too much to expect that our children will enjoy in their homes, electrical energy too cheap to meter, will know of great periodic regional famines in the world only as matters of history, will travel effortlessly over the seas and under them and through the air with a minimum of dangers and at great speeds, and will experience a life span longer than ours...This is the forecast for an age of peace."[61]

Crucial to the commercializing of nuclear power was the Price-Anderson Act passed in 1957, which almost completely underwrote liability for nuclear accidents. Even though energy companies were required to purchase insurance, they were indemnified up to 560 million dollars. By the early 1960s, both General Electric and Westinghouse had invested billions of dollars in reactors which employed both pressurized-water and boiling-water technologies. Although these early reactors were not profitable, the potential for future economic gain led to utility companies ordering 100 reactors between 1965 and 1970.

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[60] Richard Rhodes. *Nuclear Renewal, Common Sense About Energy.* New York: Penguin Books, 1993, page 35.
[61] Ibid, page 37.

The uranium enrichment process was a fundamental step in supplying power for civilian nuclear reactors. Once the uranium ore is mined and purified into uranium oxide, it is then converted to UF_6. As a gas, the UF_6 is then enriched through the gaseous diffusion process and the enriched UF_6 is converted into uranium dioxide (UO_2), a black powder, which is then pressed into ceramic pellets. The pellets are formed into thin-walled zirconium alloy tubes, or fuel rods. The fuel rods are then employed into fuel assemblies to provide the heat and energy to power the light-water reactors.[62]

The Arab Oil Embargo of 1973 resulted in reduced demand for all forms of energy and the number of orders for nuclear power plants plummeted. During the 1970s, concerns over the safety of nuclear plants increased and several proposed plants were cancelled due to public opposition. The image of nuclear power suffered a serious blow in March 1979, when a series of malfunctions occurred at the Three Mile Island plant near Harrisburg, Pennsylvania. A "general emergency" was declared when coolant was lost at one of the reactors resulting in a partial meltdown. An estimated 140,000 people evacuated the area around the plant; however, no substantial radioactivity leaked from the plant area itself. Cleanup at the site cost hundreds of millions of dollars and took several years. As a result of Three Mile Island, the NRC mandated modifications to nuclear plants, which averaged $20 million per plant.[63]

By the early 1980s, the demand for enriched uranium lessened as construction of new nuclear power plants came to a halt. In Paducah, the operations of the plant for DOE were conveyed from Union Carbide to Martin Marietta and there was an increasing focus on environmental remediation. In 1993, Congress transferred production of enriched uranium from DOE to USEC. The DOE then assumed the role of landlord with an environmental cleanup mission. In 1993, the U.S. contained 110 nuclear power plants, which generated one-fifth of the nation's total electricity.[64] Of the reactors capable of commercial operation in the U.S., one-third employ boiling-water reactors while two-thirds utilize pressurized-water reactors.[65] America's nuclear power plants now increasingly utilize enriched uranium from centrifugal enrichment rather than gaseous diffusion.

The PGDP is considered eligible in the areas of military and industry. The engineering and technology of gaseous diffusion were first developed at the K-25 plant in Oak Ridge during World War II. This process was refined in the years after the war at K-25 and this technology was continued when the plants at Paducah and Portsmouth, Ohio, were constructed in the early 1950s. Both of these plants were built with machinery and functions similar to that as K-25, and no significant advances in the engineering or technology of the gaseous diffusion process are known to have been developed at either Paducah or Portsmouth.

The PGDP is not considered to be of architectural significance for its design or construction methodology. The majority of the buildings were constructed in utilitarian industrial forms and lack any references to architectural styles of the mid-twentieth century. Most of the original buildings were constructed in rectangular plans with flat roofs and exteriors of concrete-and/or asbestos-impregnated plastic known as transite. Fenestration consisted largely of rectangular windows and doors of steel or aluminum design. The large process buildings were designed to accommodate the gaseous diffusion processes within and the exteriors are characterized by exhaust vents and few windows or doors. Buildings constructed after the 1950s continued to be simple utilitarian forms and the use of metal pre-fabricated buildings was widespread to the present.

The gaseous diffusion plants at Oak Ridge, Tennessee, has been determined eligible for listing on the National Register for its role in military and industrial history. The main processing building at the

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[62] Richard L. Garwin and Georges Charpak. *Megawatts and Megatons.* New York: Alfred A. Knopf, 2001, page 119.
[63] Rhodes, *Nuclear Renewal*, page 84.
[64] Ibid, page 1.
[65] Garwin and Charpak, *Megawatts and Megatons*, page 111.

K-25 plant at Oak Ridge has been identified as eligible for National Historic Landmark status due to its role as the prototype plant of its kind. Built in the 1940s as part of the Manhattan Project, K-25 served as the developmental site of the gaseous diffusion process in the U.S. In addition to the landmark K-25 Building, much of the rest of the plant area has been determined to meet National Register criteria as a historic district. The PGDP was constructed in the early 1950s and used the same technology developed at the K-25 site. Although not significant on a national level as the K-25 plant, the Paducah facility is significant at a local and state level for its role in the Cold War and the development of commercial nuclear energy.

The period of significance for the PGDP Historic District extends from 1952 to 1973. The 1952 date coincides with the initial construction of the plant and the first buildings placed into service. The end date of 1973 is justified within the contexts of the military and industrial history of the plant. Within the plant's military context, the Department of Defense determined that America had sufficient numbers of nuclear weapons stockpiled by the early 1960s and enriched uranium for weapons production ceased at the plant in 1964. Within the facility's industrial context, the 1973 date coincides with the Arab Oil Embargo and a drastic decline in orders for nuclear power plants and enriched uranium. The Arab Oil Embargo resulted in a recession in the U.S. economy that dampened nuclear prospects for years to come. Hyper-inflation and high interest rates brought economic and electricity growth to a halt, rendering many newly ordered nuclear power plants superfluous and unable to be financed by utility companies. Nuclear plants, more capital-intensive than fossil plants and requiring years of construction, were the first to be cancelled. The early 1970s also coincided with concerns over the safety of nuclear power resulting in additional cancellations. These years also witnessed changes in nuclear technology and an increase in commercial grade enriched uranium from centrifugal extraction rather than gaseous diffusion.

The recommended historic district boundary is drawn to include all of the uranium enrichment processing plants and adjacent support facilities including the electrical switchyards and substations, and cooling towers and pump houses. The district boundary also includes the original administrative and control buildings located to the southwest of the main processing area. Within this recommended boundary are the properties of primary significance to the plant's mission and Contractor-operations. The boundary is drawn to omit ancillary buildings and structures such as warehouses, maintenance facilities, waterworks, and sewage plants. The majority of these buildings are of prefabricated metal or concrete construction and were not directly involved in the plant's uranium enrichment process. Almost half of the buildings outside the proposed boundary were constructed after the plant's period of significance.

The proposed PGDP Historic District contains 119 buildings and structures of which 101 would be considered contributing to the character of the district (Figure 26). The non-contributing buildings within the district were built after 1973 and most have storage or administrative functions. The district also contains a number of temporary trailers, which are scheduled for removal over the next few years. Because of their temporary nature these trailers are not included in the overall building count of the district.

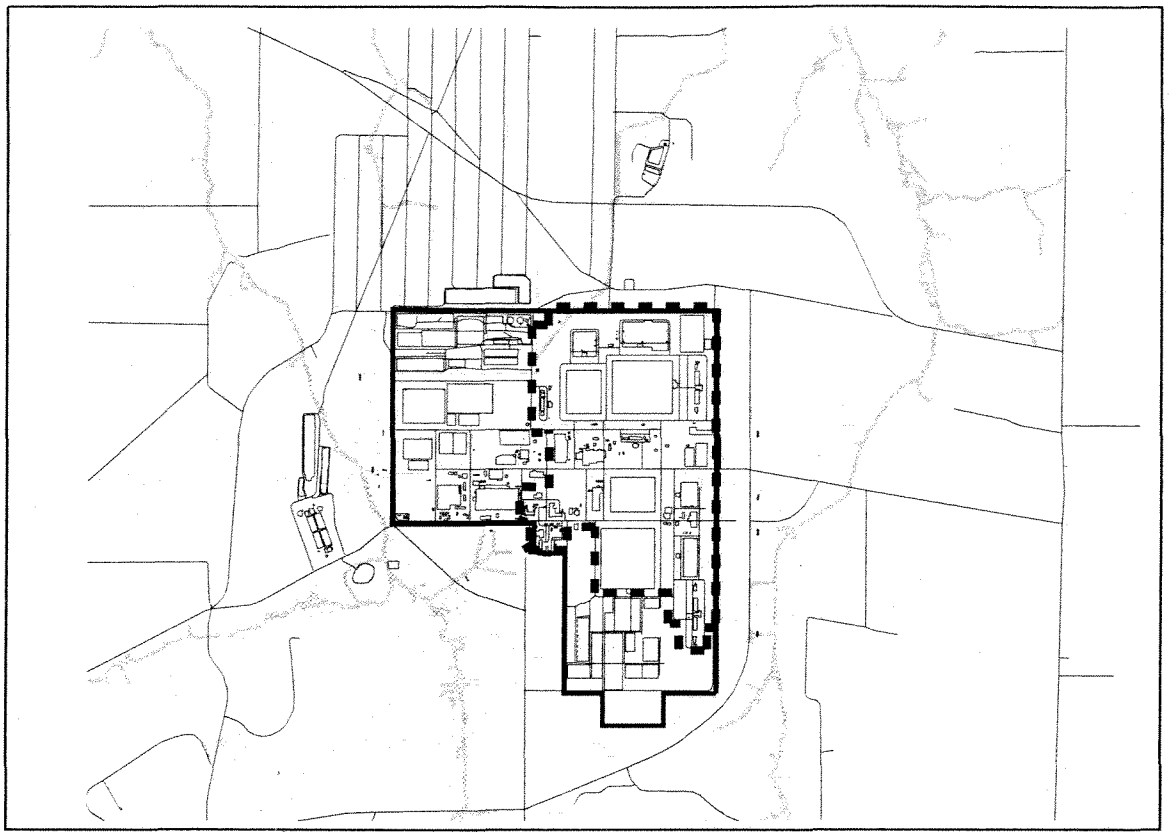

Figure 26. Proposed PGDP Historic District National Register boundary.

6. REFERENCES

A Phase I Archaeological Reconnaissance on the Solid Waste Landfill (ESO-18007) at the Paducah Gaseous diffusion Plant in McCracken County, Kentucky. Report prepared by Martin C. Evans; Louisville, KY, April 1993 (revised June 1993).

Allardice, C. and E. R. Trapnell. *The Atomic Energy Commission.* New York: Praeger Publishers, 1974.

Dinneen, Joseph F. "The Scandal of the Paducah Atom Project." *Collier's Magazine*, June 20, 1953.

Durfee, Kristopher. *Why Paducah?: An Analysis of the Selection Site for the Gaseous Diffusion Plant in Paducah, KY*" 2003. Manuscript on file at the McCracken County Public Library, Paducah, Kentucky.

DuPont, The Autobiography of an American Enterprise. New York: Charles Scribner's Sons, 1952.

Environmental Investigations at the Paducah Gaseous Diffusion Plant and Surrounding Area, McCracken County, Kentucky, Volume IV, Cultural Resources Investigation. Department of the Army, Vicksburg, Mississippi, and Nashville, Tennessee, 1994.

"Atomic plant made Paducah double," *The Paducah Sun.* September 15, 2000.

"Atomic Plant to be Located At KOW Site Here." *The Paducah Sun-Democrat.* December 15, 1950.

"A Fantastic Power User." *The Paducah Sun-Democrat.* April 17, 1953.

Engineering Evaluation/Cost Analysis for the C-410 Complex Infrastructure at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky. U.S. Department of Energy, October 2001.

Faust, Patricia, ed. *Historical Times Illustrated Encyclopedia of the Civil War.* New York: Harper and Row, 1986.

Final Phase I Engineering Report, Volume I of IV, Executive Summary, Phase I Remedial Investigation at the Former Kentucky Ordnance Works, McCracken County, Kentucky. Report prepared for the U.S. Army Corps of Engineers, Nashville District, TCT-St. Louis, 1992.

Garrison, Joe. Section 106 Coordinator, Tennessee Historical Commission. Personal interview, January 15, 2003.

Garwin, Richard L. and Georges Charpak. *Megawatts and Megatons.* New York: Alfred A. Knopf, 2001.

Gosling, F. G. *The Manhattan Project, Making the Atomic Bomb.* U.S. Department of Energy, Energy History Series, September 1994.

Gosling, F. G. Telephone interview, January 14, 2003.

"The Growing Pains and Successes of a Real Boomtown." *The Paducah Sun*, October 19, 2002.

Hewlett, R. G. and O. E. Anderson. *The New World, 1939/1946: Volume I, A History of the United States Atomic Energy Commission.* University Park, Pennsylvania: Pennsylvania State University, 1962.

Historical Records of the Atomic Energy Commission, U.S. Department of Energy, Washington, DC.

"Inside the A-Plant." *The Paducah Sun-Democrat.* April 17, 1955.

Letter from David L. Morgan, Director; Kentucky Heritage Council and State Historic Preservation Officer to John Young, CDM Federal Programs Corporation; dated July 2, 1993; Re: *A Phase I Archaeological Reconnaissance on the Solid Waste Landfill (ESO-18007) at the Paducah Gaseous Diffusion Plant in McCracken County, Kentucky* by Martin C. Evans.

Level III Baseline Risk Evaluation for the C-410 Complex at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky. U.S. Department of Energy, September 1994.

Logan, Jonathan. "The Critical Mass," *American Scientist.* May–June 1996.

McCracken County Deed Records, Paducah, Kentucky.

The Oak Ridge Story. Kingsport, Tennessee: Southern Publishers, 1950.

"Paducah Changes its Way of Life." *Life,* Vol. 33, no. 2, July 14, 1952, pages 21–24.

Paducah Historical Society. *History and Families of McCracken County, Kentucky: 1824-1989.* Paducah, Kentucky: Turner Publishing Company, 1989.

Paducah Overview and Tour Book. Environmental Management and Enrichment Facilities, Paducah Gaseous Diffusion Plant, U.S. Department of Energy, 1997.

Potts, Craig. Environmental Review Coordinator, Kentucky Heritage Council, e-mail letter, February 18, 2003.

Programmatic Agreement Among the Department of Energy Paducah Site Office, The Kentucky State Historic Preservation Officer, and The Advisory Council on Historic Preservation Concerning Management of Historical Properties at the Paducah Gaseous Diffusion Plant. January 2004. Copy on file at the Department of Energy, Oak Ridge Operations, Paducah Site Office, Paducah, KY.

Rhodes, Richard. *Dark Sun, The Making of the Hydrogen Bomb*. New York: Simon and Schuster, 1995.

Richard Rhodes. *Nuclear Renewal, Common Sense About Energy*. New York: Penguin Books, 1993.

Robertson, John E. L. *Paducah, 1830–1980, A Sesquicentennial History.* Paducah, KY: Image Graphics, 1980.

Robinson, G. O. *The Oak Ridge Story.* Kingsport, TN: Southern Publishers, 1950.

"Rule By Strike – A Case History," *U.S. News and World Report*, October 9, 1953.

Snyder, David. Section 106 Coordinator, Ohio Historic Preservation Office. Telephone interview, January 13, 2003.

"U.S. TNT Special Contract." Manuscript on file at the Hewgley Museum, Wilmington, Delaware.

USEC Web site: www.usec.com.

"Welcome to the Atomic City," Paducah Gaseous Diffusion Plant promotional brochure, 2002.

APPENDIX A

INVENTORIED PROPERTIES AT KOW AND PGDP

~~OFFICIAL USE ONLY~~ TH

7-7-12

~~OFFICIAL USE ONLY~~ TH 7-12

Property Inventory

Facility number	Kentucky survey number	Function	Floor area (square feet)	Construction date
		Process buildings		
C-300	MCN-106	Central Control Building	16,022	1953
C-310	MCN-111	Purge and Product Building	112,240	1952
C-310-331-A	MCN-112	Enclosed Bridge	200 linear feet	1952
C-310-331-B	MCN-113	Tie Lines	200 linear feet	1952
C-310-410	MCN-114	Tie Lines	520 linear feet	1952
C-310-A	MCN-115	Product Withdrawal Building	3,276	1952
C-315	MCN-116	Surge and Tails Building	16,040	1952
C-315-331	MCN-117	Tie Lines	10,240; 5,800	1952
C-331	MCN-119	Process Building	1,029,120	1952
C-331-333-A	MCN-120	Enclosed Bridge	300 linear feet	1952
C-331-333-B	MCN-121	Tie Line (East)	300 linear feet	1952
C-331-333-C	MCN-122	Tie Line (West)	300 linear feet	1952
C-331-335	MCN-123	Tie Line	1,350 linear feet	1952
C-331-410	MCN-124	Tie Line	629 linear feet	1952
C-333	MCN-125	Process Building	2,130,120	1952
C-333-A	MCN-126	Feed Vaporization Facility	8,305	1952
C-335	MCN-127	Process Building	1,029,120	1954
C-335-337-A	MCN-128	Enclosed Bridge	200 linear feet	1954
C-335-337-B	MCN-129	Tie Line (North)	200 linear feet	1954
C-335-337-C	MCN-130	Tie Line (South)	200 linear feet	1954
C-337	MCN-131	Process Building	2,130,120	1954
C-337-A	MCN-132	Feed Vaporization Facility	8,556	1960
C-340	MCN-133	Powder Building/Decontamination and Decommissioning	67,428	1955
C-410	MCN-148	Feed Plant Complex	128,869	1953–57
C-620	MCN-202	Air Compressor Room	10,000	1953
		Electrical switchyards and switch houses		
C-531-1	MCN-150	Switch House	31,400	1952
C-531-2	MCN-151	Switchyard	135,160	1952
C-531-3A	MCN-152	Fire Valve House No. 1	144	1952
C-531-3B	MCN-153	Fire Valve House No. 2	144	1952
C-532	MCN-154	Relay House	7,784	1952
C-533-1	MCN-155	Switch House	37,360	1953
C-533-2	MCN-156	Switchyard	218,860	1953
C-533-3A	MCN-157	Fire Valve House No. 1	144	1953
C-533-3B	MCN-158	Fire Valve House No. 2	144	1953
C-533-3C	MCN-159	Fire Valve House No. 3	144	1953
C-533-3D	MCN-160	Fire Valve House No. 4	144	1953
C-535-1	MCN-161	Switch House	28,000	1954
C-535-2	MCN-162	Switchyard	165,680	1954
C-535-3A	MCN-163	Fire Valve House No. 1	144	1954
C-535-3B	MCN-163	Fire Valve House No. 2	144	1954
C-535-4	MCN-164	Test Shop	480	1954
C-536	MCN-165	Relay House	7,784	1954

Property Inventory (continued)

Facility number	Kentucky survey number	Function	Floor area (square feet)	Construction date
		Electrical switchyards and switch houses (continued)		
C-537-1	MCN-166	Switch House	42,140	1954
C-537-2	MCN-167	Switchyard	284,200	1954
C-537-3A	MCN-168	Fire Valve House No. 1	144	1954
C-537-4	MCN-169	Test Shop	480	1954
C-540-A	MCN-170	Oil Pump House	312	1952
C-541-A	MCN-175	Oil Pump House	312	1952
		Cooling towers and pump houses		
C-631-1	MCN-203	Pump House	9,700	1952
C-631-2	MCN-204	Cooling Tower	15,248	1953
C-631-3	MCN-205	Pump House (Firewater)	1,196	1959
C-631-4	MCN-206	Blending Pump House	1,540	1982
C-631-5	MCN-207	Blending Cooling Tower (West)	3,024	1953
C-631-6	MCN-208	Blending Cooling Tower (East)	3,024	1953
C-633-1	MCN-209	Pump House	10,245	1953
C-633-2A	MCN-210	Cooling Tower (South)	16,085	1953
C-633-2B	MCN-211	Cooling Tower (North)	16,085	1953
C-633-3	MCN-212	Blending Pump House	1,984	1953
C-633-4	MCN-213	Blending Cooling Tower (North)	4,536	1953
C-633-5	MCN-214	Blending Cooling Tower (South)	4,536	1953
C-633-6	MCN-215	Sand Filter Building	260	1983
C-635-1	MCN-216	Pump House and Piping	8,505	1954
C-635-2	MCN-217	Cooling Tower	15,428	1954
C-635-3	MCN-218	Blending Pump House	1,984	1982
C-635-4	MCN-219	Blending Cooling Tower (North)	2,520	1954
C-635-5	MCN-220	Blending Cooling Tower (South)	3,024	1954
C-635-6	MCN-221	Process Waste Heat Utilization Pump House	2,566	1983
C-637-1	MCN-222	Pump House	10,245	1954
C-637-2A	MCN-223	Cooling Tower (South)	22,100	1954
C-637-2B	MCN-224	Cooling Tower (North)	22,011	1954
C-637-3	MCN-225	Blending Pump House	2,048	1982
C-637-4	MCN-226	Blending Cooling Tower (North)	3,528	1954
C-637-5	MCN-227	Blending Cooling Tower (South)	3,528	1954
C-637-6	MCN-228	Sand Filter Building	260	1982
		Administrative buildings		
C-100	MCN-95	Administration Building	67,516	1953
C-212	MCN-101	Office Building	3,471	1952
C-302	MCN-108	Operations Division Data Center	7,366	1981
C-303	MCN-109	Supervisory Control and Data Acquisition Systems Building	2,109	1984
C-304	MCN-110	Training and Cascade Office Building	8,000	1991
C-320	MCN-118	Communication Building	1,116	1952
C-709	MCN-229	Plant Laboratory Annex	13,500	1998
C-710	MCN-230	Technical Service Building	84,333	1953
C-743	MCN-253	Office Building	9,973	1971

Property Inventory

Facility number	Kentucky survey number	Function	Floor area (square feet)	Construction date
		Security facilities		
C-200/201/ 202/203/204	MCN-98	Guard and Fire Headquarters	19,490	1953–1986
C-205	MCN-99	Respirator Issue Facility	3,600	1998
C-207	MCN-100	Fire Training Facility	900	1993
C-212-U	MCN-102	Utility Operations Office	1,715	1953
C-215	MCN-103	Portals 18 and 19	1,045	1957
C-216	MCN-104	Post 37	500	1983
C-217	MCN-105	Post 43	108	1985
		Water treatment facilities		
C-611	MCN-193	Water Treatment Plant	15 acres	1942
C-611-M	MCN-194	North Concrete Sanitary Water	250,000 gal	1942
C-611-N	MCN-195	South Concrete Sanitary Water	250,000 gal	1942
C-611-O	MCN-196	Sanitary Water Storage Tank	250,000 gal	1953
C-611-R	MCN-197	Water Tank	300,000 gal	1953
C-615	MCN-198	Sewage Disposal Plant	806	1952
C-616-A	MCN-199	Chemical Feed Building	2000	1978
C-616-B	MCN-200	Clarifier-East	1,350,000 gal	1977
		Clarifier-West		
C-616-K	MCN-201	Service Building	420	1979
		Storage tanks		
C-406	MCN-144	Trichloroethylene Storage Tank	6,015 gal	1953
C-407	MCN-145	Nitric Acid Storage Tank	11,000 gal	1953
C-540-B	MCN-171	Oil Storage Tank (Northwest)	15,000 gal	1953
C-540-C	MCN-172	Oil Storage Tank (Southwest)	15,000 gal	1953
C-540-D	MCN-173	Oil Storage Tank (Northeast)	7,500 gal	1953
C-540-E	MCN-174	Oil Storage Tank (Southeast)	15,000 gal	1953
C-541-B	MCN-176	Oil Storage Tank (Northwest)	7,500 gal	1953
C-541-C	MCN-177	Oil Storage Tank (Southwest)	15,000 gal	1953
C-541-D	MCN-178	Oil Storage Tank (Northeast)	7,500 gal	1953
C-541-E	MCN-179	Oil Storage Tank (Southeast)	15,000 gal	1953
C-601-A	MCN-182	Steam Plant Fuel-Storage Tank (Center)	420,000 gal	1953
C-601-B	MCN-183	Steam Plant Fuel-Storage Tank (South)	420,000 gal	1953
C-601-D	MCN-185	Fuel Oil Storage Tank (North)	1,000,000 gal	1974
C-603-E	MCN-186	Nitrogen Storage Tank (East)	11,000 gal	1974
C-603-F	MCN-187	Nitrogen Storage Tank (Center)	11,000 gal	1975
C-603-G	MCN-188	Nitrogen Storage Tank (West)	11,000 gal	1975
		Warehouses, storage, and support buildings		
C-101	MCN-96	Cafeteria	18,326	1953
C-102	MCN-97	Hospital	11,666	1953
C-301	MCN-107	Low-Level Waste Storage	2,802	1959
C-342	MCN-134	Ammonia Dissociator Building	1,242	1958
C-342-A	MCN-135	Ammonia Dissociator Addition	1,224	1956
C-342-B	MCN-136	Ammonia Dissociator Tank Shelter	Tank Area 2304	1978
C-350	MCN-137	Drying Agent Storage Building	1,570	1973

Facility number	Kentucky survey number	Function	Floor area (square feet)	Construction date
		Warehouses, storage, and support buildings (continued)		
C-360 and C-360-A	MCN-138	Toll Transfer and Sampling Building	17,800	1982
C-400	MCN-140	Cleaning Building	116,140	1954
C-402	MCN-141	Lime House	1,742	1950
C-403	MCN-142	Neutralizing Pit	900	1953
C-405	MCN-143	Contaminated Items Incinerator	1,010	1952
C-408	MCN-146	50-Ton Truck Scale	130	1963
C-409	MCN-147	Stabilization Building	26,797	1976
C-415	MCN-149	Feed Plant Storage Building	3,666	1960
C-600	MCN-180	Steam Plant	47,424	1952
C-601	MCN-181	Nitrogen Generator Building Addition	1,128 1,122	1952
C-601-C	MCN-184	Steam Plant Fuel Oil Pump House	148	1952
C-604	MCN-189	Utilities Maintenance Building	2,400	1979
C-605	MCN-190	Substation Building	1,200	1979
C-606	MCN-191	Coal Crusher Building	1,470	1980
C-607	MCN-192	Emergency Air Compressor Generator Building	2,000	1984
C-710-A	MCN-231	Gas Cylinder Storage Building	400	1953
C-711	MCN-232	Gas Manifold	962	1953
C-720	MCN-234	Maintenance and Stores Building	299,944	1952
C-720-G	MCN-235	90-Day Storage Recycling/Stores Storage	10,800	1976
C-720-H	MCN-236	Warehouse	2,400	1978
C-721	MCN-237	Gas Manifold Storage	962	1952
C-724-A	MCN-238	Carpenter Shop Annex	3,900	1954
C-724-B	MCN-239	Carpenter Shop	10,215	1954
C-724-C	MCN-240	Paint Shop	1,600	1954
C-724-D	MCN-241	Lumber Storage Building	2,880	1954
C-726	MCN-242	Sandblast Building	2,019	1973
C-727	MCN-243	90-Day Mixed Waste Accumulation	4,428	1954
C-728	MCN-244	Motor Cleaning Facility	1,597	1958
C-729	MCN-245	Acetylene Building	430	1956
C-730	MCN-246	Maintenance Service	1,057	1955
C-731	MCN-247	Railroad Repair Equipment Storage Building	1,280	1981
C-732	MCN-248	Maintenance Materials Storage Building	1,680	1981
C-733	MCN-249	Waste Oil and Chemical Storage Facility	1,680	1985
C-740-B	MCN-250	Oil Drum Storage Shelter	2,800	1975
C-741	MCN-251	Mobile Equipment Building	5,360	1952
C-742	MCN-252	Cylinder Storage Building	5,360	1952
C-744	MCN-254	Material Handling	6,400	1952
C-746-A	MCN-255	North Warehouse	72,000	1954
C-746-B	MCN-256	South Warehouse	72,000	1959
C-746-G	MCN-257	Electrical Equipment Storage	2,400	1974
C-746-L	MCN-258	Tractor Storage	364	1985
C-746-M	MCN-259	Waste Uranium Chip Storage Facility	432	1976

Property Inventory (continued)

Facility number	Kentucky survey number	Function	Floor area (square feet)	Construction date
Warehouses, storage, and support buildings (continued)				
C-746-Q	MCN-260	Hazardous and LLW Storage	33,165	1965
C-746-Q1	MCN-261	High-Assay Waste Storage Facility	16,335	1965
C-750	MCN-262	Garage	11,866	1952
C-751	MCN-263	Fuel Dispensing Facility	50	1991

APPENDIX B

ARCHITECTURAL DESCRIPTIONS

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PADUCAH GASEOUS DIFFUSION PLANT

The majority of the buildings at PGDP were built between 1951 and 1956 when the main processing facilities were placed in operation. The plant's process buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1800 enrichment stages. The plant has a design capacity of 11.3 million separative work units (SWUs) per year. A SWU is the industry standard for measuring uranium enrichment services. Customers pay for the number of SWUs required to enrich their uranium feed to their specifications.

The PGDP construction spanned from 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF_6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and operational in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956. The firm responsible for the design of the large process buildings was Giffels and Vallet Inc. of Detroit, Michigan. This firm was a major subcontractor to the AEC during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels and Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the twentieth century. The company designed many industrial buildings for the automotive industry in Detroit, as well as, office and residential buildings. In the early 1950s, the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s, the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations. The pictures included in this appendix were taken during July and August 2004 by CDM Federal Services and reviewed by Bechtel Jacobs Company LLC Security Office. The "Construction Date" provides the initial construction date; these were obtained from engineering drawings, which may have been finalized after the building was placed in operation, and in some cases, making the construction date later than the operational date. The PGDP contains the following eight primary property types:

1. Process Buildings
2. Electrical Switchyards and Switch Houses
3. Cooling Towers and Pump Houses
4. Administrative Buildings
5. Security Facilities
6. Water Treatment Facilities
7. Storage Tanks
8. Support, Maintenance, and Warehouses Buildings

Process Buildings

Process buildings are those that are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. The initial shipments were in 30- and 55-gallon drums and fed into the C-410 uranium trioxide (UO_3)-to-uranium tetrafluoride (UF_4)-to-UF_6 conversion facility. This complex received UO_3 in five-ton containers, which was transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and further processed into uranium tetrafluoride (UF_4) or green salt. This product was then chemically reacted with fluorine to convert the UF_4 into UF_6 prior to being placed in cylinders for future feed into the cascade enrichment system.

The UF_6 was vaporized in a hot water bath in Building C-410 and sent to the process buildings via overhead piping called tie lines. Tie lines connect with all of the main process buildings, as well as C-310. The main process buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the separation of ^{235}U from ^{238}U through the gaseous diffusion process. Once sufficiently enriched, the ^{235}U was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels located in each of the process buildings and monitored in Building C-300, the Central Control Building.

The majority of the process buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs, and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances that have surrounds of concrete-block and sliding-track steel doors. Buildings C-331 and C-335 were built in identical-plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical-plans and contain 2,130,120 square feet, or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but were also built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design. Figures B.1 and B.2 show an overview of the facility process buildings. Figures B.3 and B.4 show installation activities in C-333.

Building C-340 is the DOE Metals Plant Complex, which operated from 1955 to 1977, converting UF_6 to UF_4 and uranium metal. Hydrogen fluoride was a product of this reaction. This building is one of two complexes at the site currently under the Decontamination and Decommissioning (D&D) program. This complex includes seven facilities with a total of 80,000 square feet. Building C-410 is the second of the complexes at the site currently under the D&D program. It operated between 1952 and 1977, manufacturing UF_6 feed and fluorine. It includes nine facilities with a total of 200,000 square feet. Both of these complexes are scheduled for demolition. Table B.1 lists the process facilities that have been surveyed and are described in more detail.

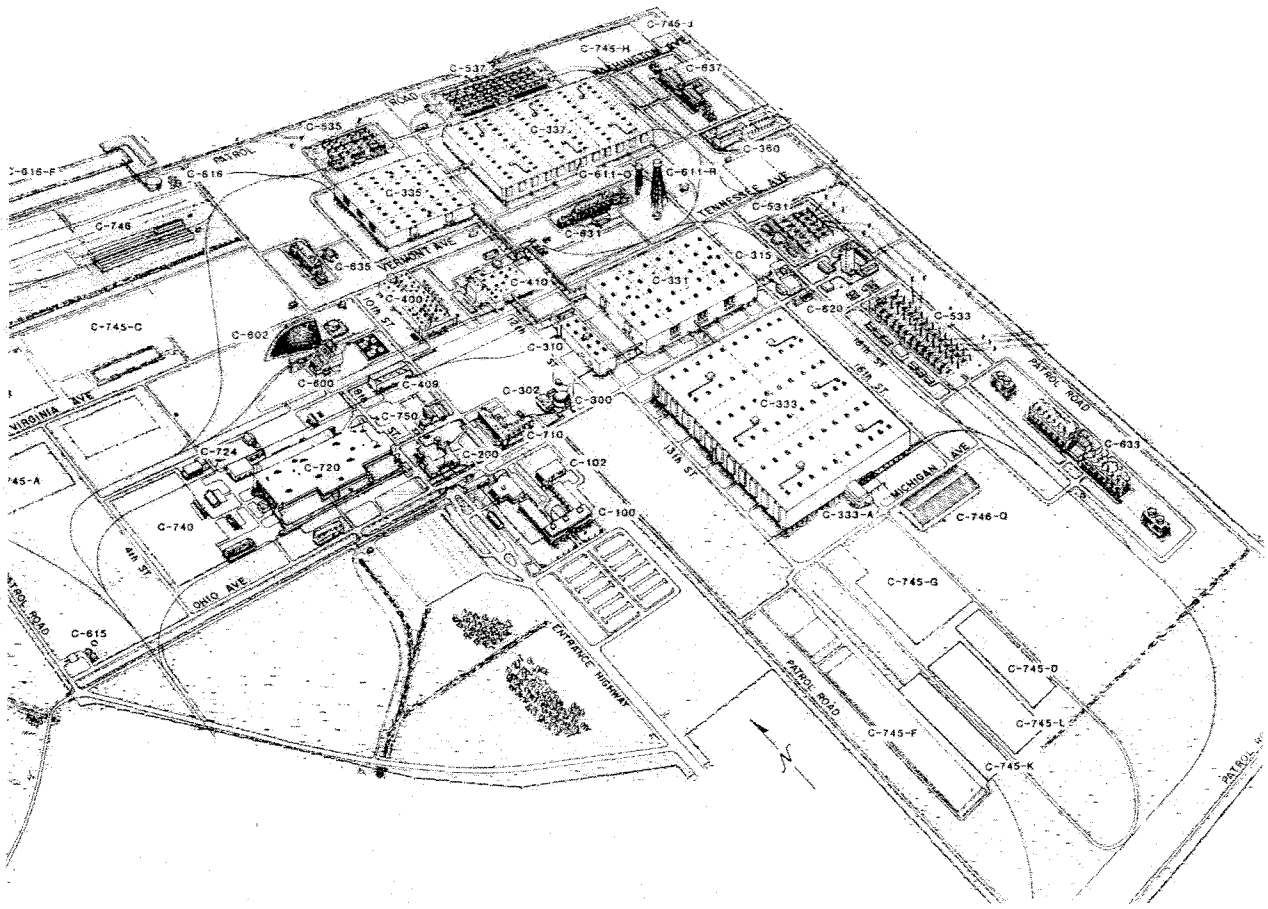

Figure B.1. Site plan of the main processing area of PGDP.

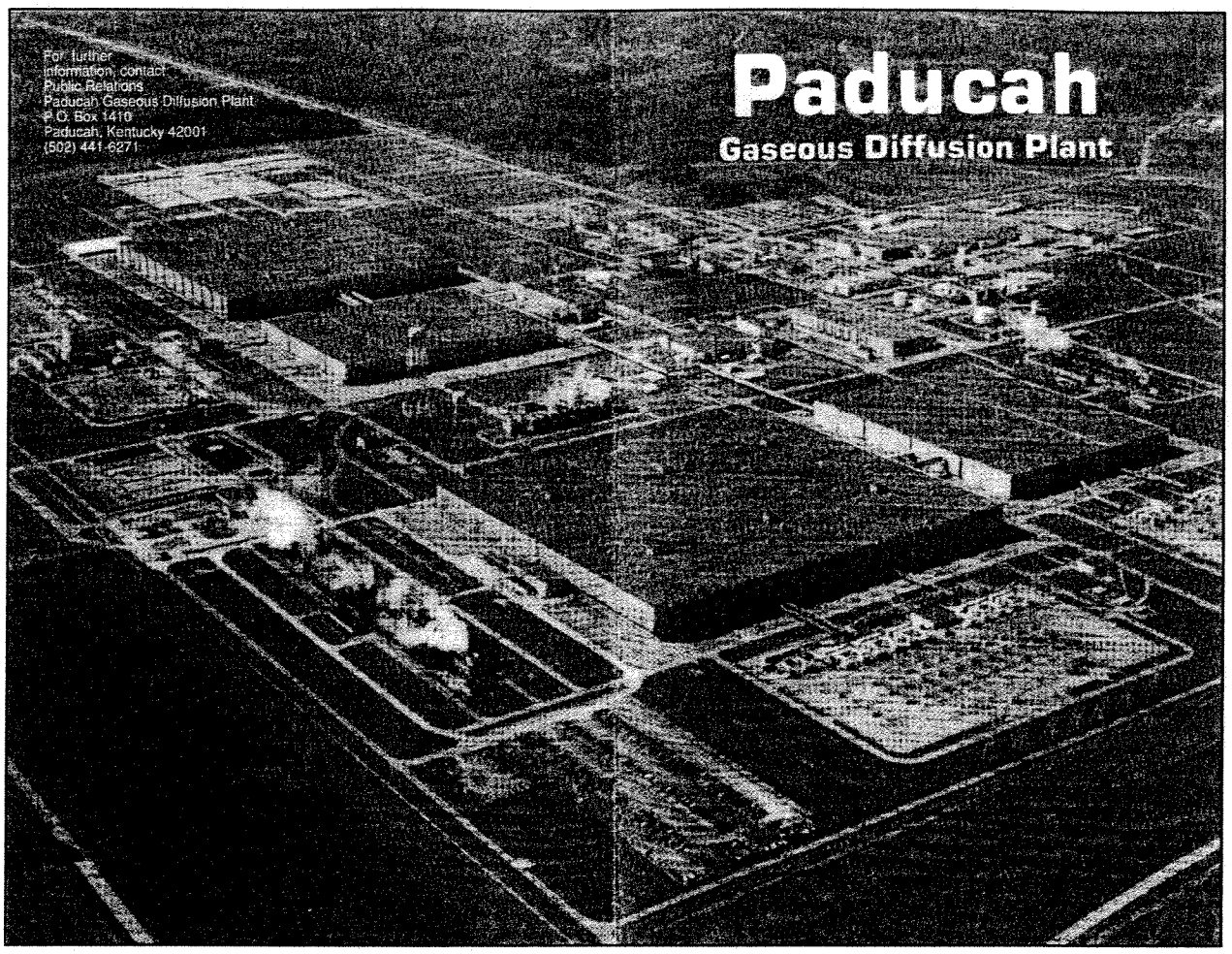

Figure B.2. View of PGDP main process buildings, ca. 1990 - view is from the northeast.

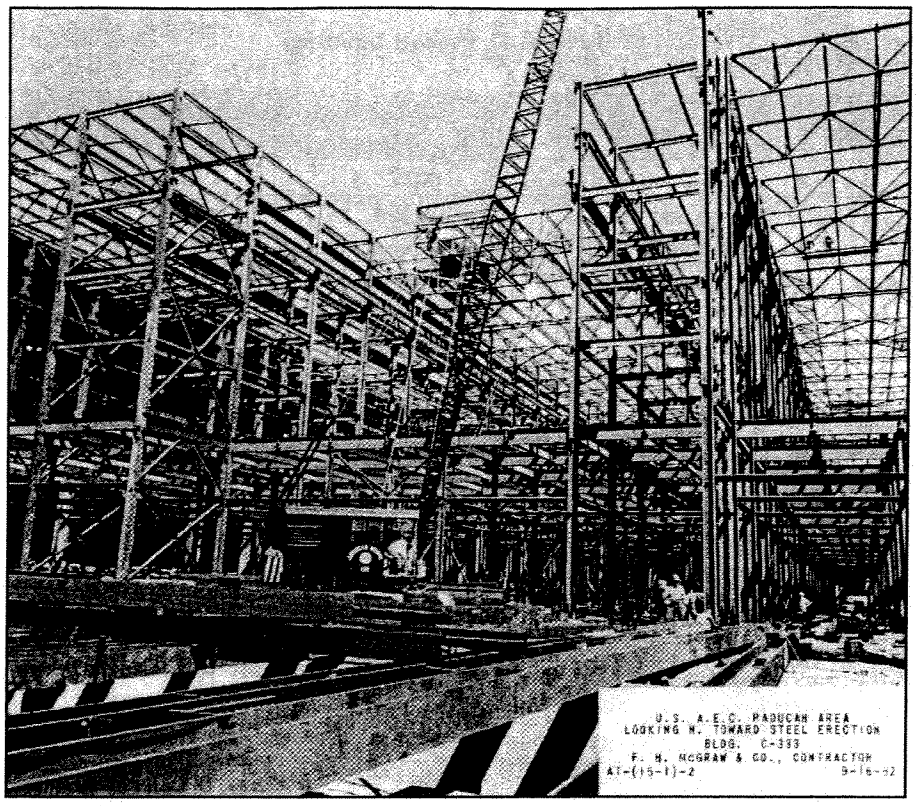

Figure B.3. Steel framework erected in the construction of the C-333 processing plant in September 1952.

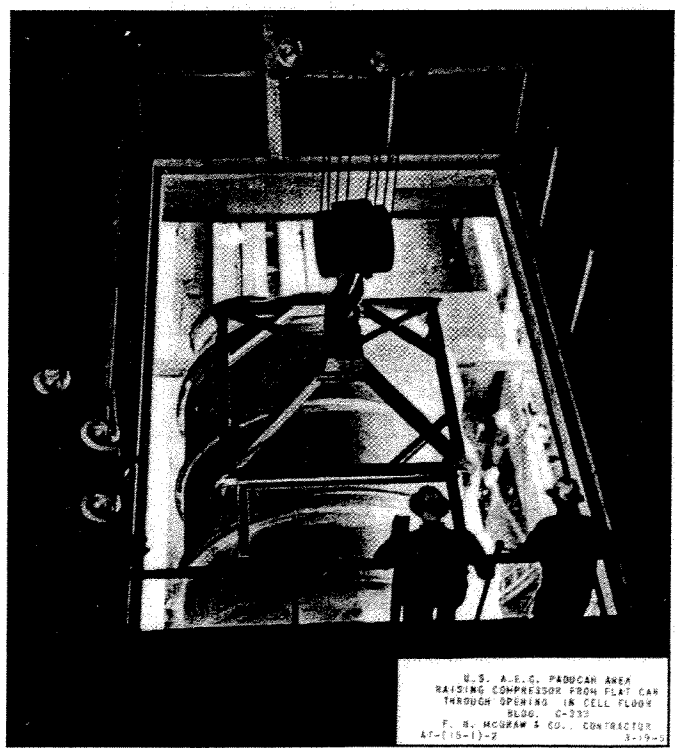

Figure B.4. Installation of a converter into Building C-333 in March 1953.

Table B.1. Process buildings

Process Buildings	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-300	B.5-B.8	Central Control Building	16022	1953	Yes – Contributing
C-310	B.9	Purge and Product Building	112240	1952	Yes – Contributing
C-310-331-A	Appendix D MCN-112	Enclosed Bridge	200 Linear Feet	1952	Yes – Contributing
C-310-331-B	Appendix D MCN-113	Tie Lines	200 Linear Feet	1952	Yes – Contributing
C-310-410	Appendix D MCN-114	Tie Lines	520 Linear Feet	1952	Yes – Contributing
C-310-A	Appendix D MCN-115	Product Withdrawal Building	3276	1952	Yes – Contributing
C-315	B.10	Surge and Tails Building	16040	1952	Yes – Contributing
C-315-331	Appendix D MCN-117	Tie Lines	10240; 5800	1952	Yes – Contributing
C-331	B.12	Process Building	1029120	1952	Yes – Contributing
C-331-333-A	Appendix D MCN-120	Enclosed Bridge	300 Linear Feet	1952	Yes – Contributing
C-331-333-B	B.13	Tie Line (East)	300 Linear Feet	1952	Yes – Contributing
C-331-333-C	B.13	Tie Line (West)	300 Linear Feet	1952	Yes – Contributing
C-331-335	Appendix D MCN-123	Tie Line	1350 Linear Feet	1952	Yes – Contributing
C-331-410	Appendix D MCN-124	Tie Line	629 Linear Feet	1952	Yes – Contributing
C-333	B.14	Process Building	2130120	1952	Yes – Contributing
C-333-A	B.15	Feed Vaporization Facility	8305	1952	Yes – Contributing
C-335	B.16	Process Building	1029120	1954	Yes – Contributing
C-335-337-A	Appendix D MCN-128	Enclosed Bridge	200 Linear Feet	1954	Yes – Contributing
C-335-337-B	B.17	Tie Line (North)	200 Linear Feet	1954	Yes – Contributing
C-335-337-C	B.17	Tie Line (South)	200 Linear Feet	1954	Yes – Contributing
C-337	B.18	Process Building	2130120	1954	Yes – Contributing
C-337-A	B.19	Feed Vaporization Facility	8556	1960	Yes – Contributing
C-340 includes C-340-A,B,C,D,E	B.20	Metals Plant Complex	67428	1955	Yes – Contributing
C-410 includes C-410-I, C-411, C-420	B.21 and B.22	Feed Plant Complex	128,869	1953-1957	Yes – Contributing
C-620	B.11	Air Compressor Building	10,000	1953	Yes – Contributing

Building C-300 – Central Control Building (Survey Number MCN-106)

The Central Control Building was constructed in 1953 to serve as the main control center for the gaseous diffusion operation. The Central Control Building is circular in design of reinforced concrete construction. The foundation, walls, and elliptical roof are all of reinforced concrete. On the main (south) façade is a ca. 1980 carport with a metal canopy supported by steel posts. The main entrance is located within a vestibule with a concrete wall and roof. This entrance has a ca. 1980 single-light steel and glass door. An elliptical, one-story wing is located on the south façade. A secondary entrance is located at the northwest façade of the building with a ca. 1980 steel and glass door. Adjacent to the building are three steel antennas.

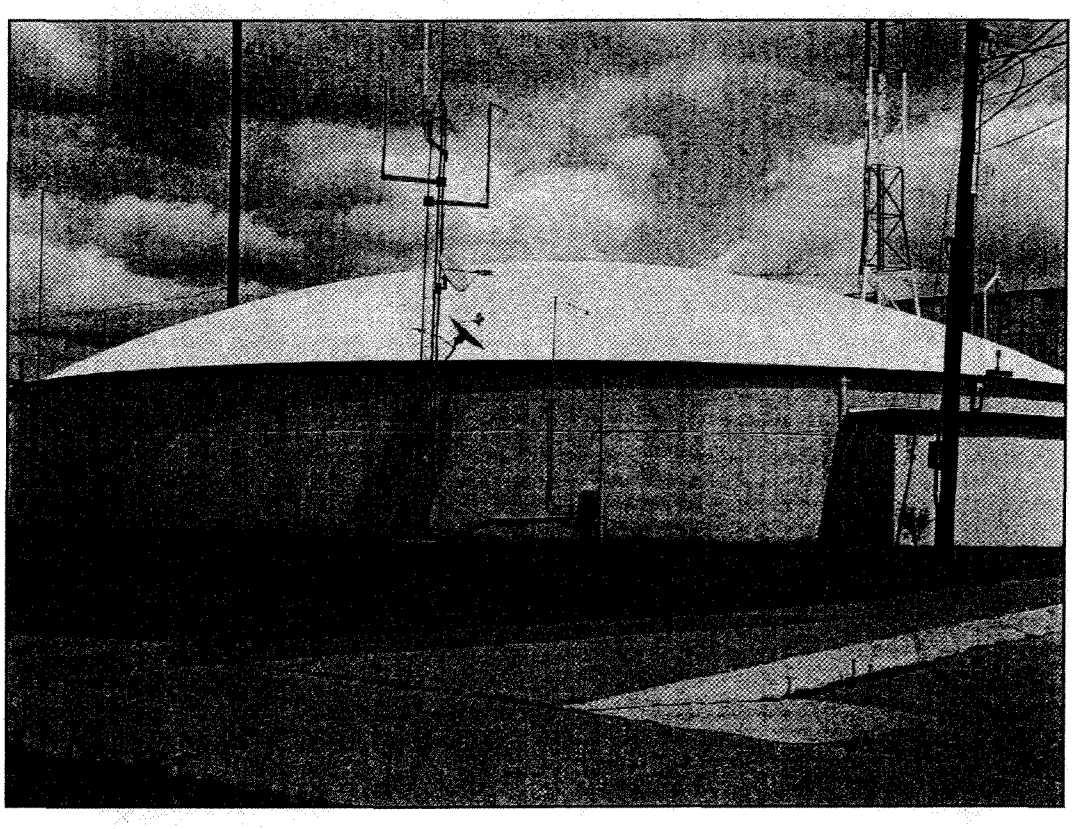

Figure B.5. Building C-300 Central Control Building, south and west façades.

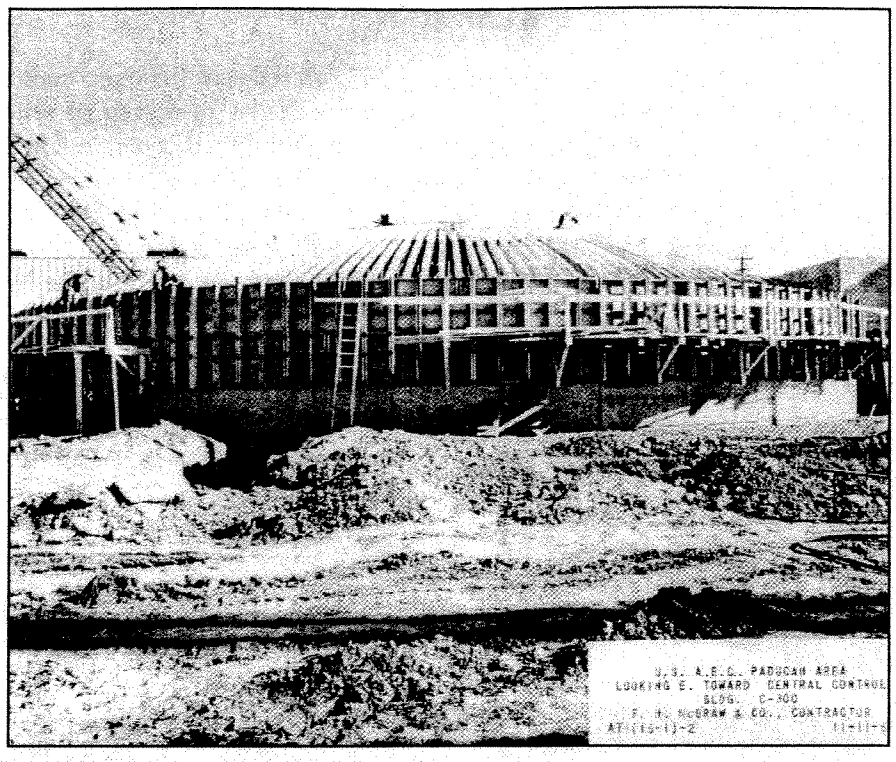

Figure B.6. Construction of Building C-300 in November 1952.

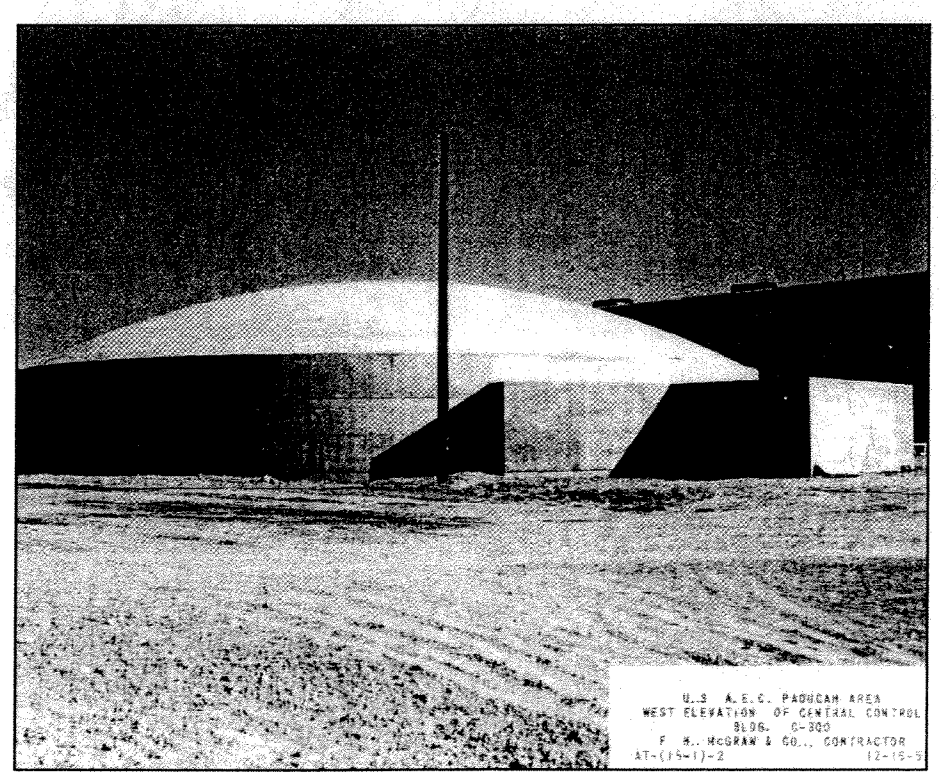

Figure B.7. Building C-300 nearing completion in December 1952.

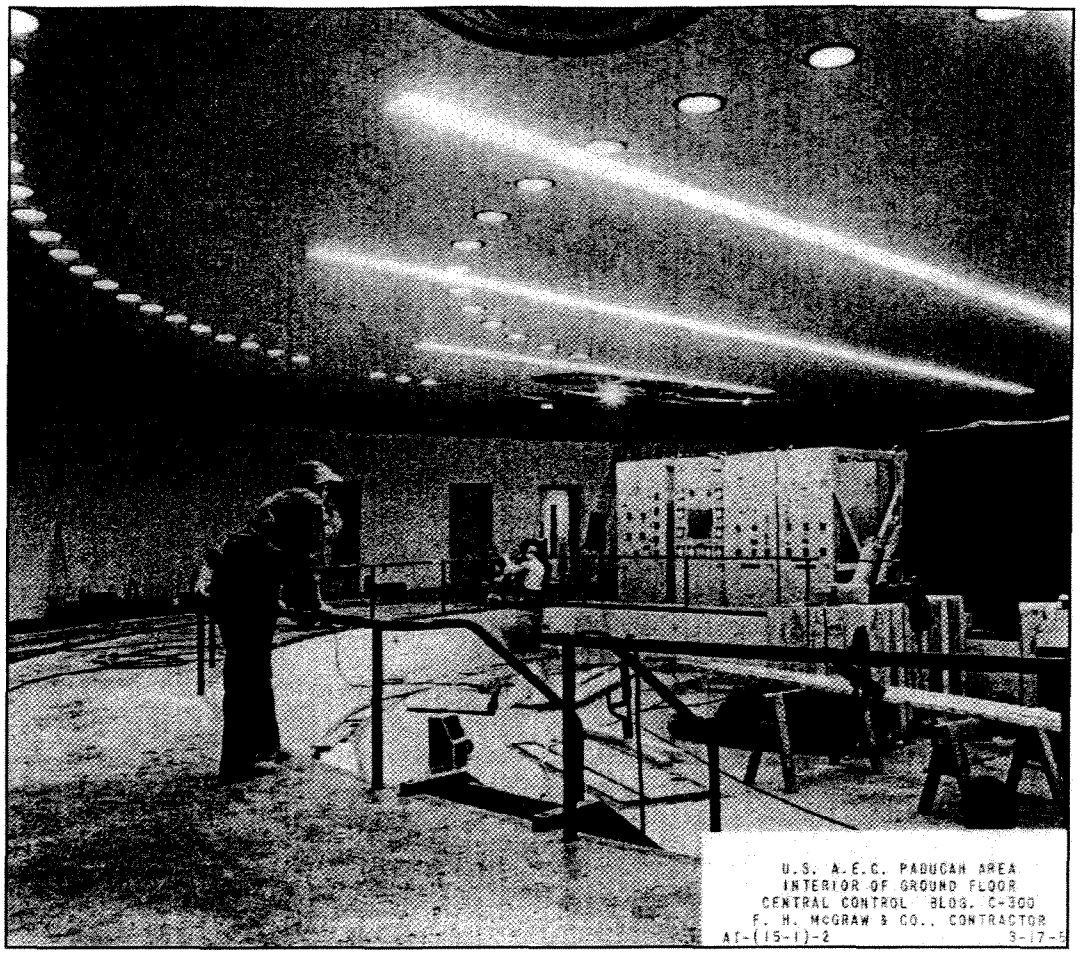

Figure B.8. Installation of control panels in Building C-300 in March 1953.

Building C-310 – Purge and Product Building (Survey Number MCN-111)

Building C-310 is a two-story building that extracts "lite gases" and enriched uranium produced by the plant. The building was completed in 1952. The building has a poured-concrete foundation, a built-up flat roof, and an exterior of transite panels. On the north façade is a garage bay on the first floor with a pedestrian door. This façade has a steel staircase, which connects with a second-story entrance. This entrance has a ca. 1980 steel and glass door. There is no other fenestration on this façade except for louvered, rectangular vents.

On the east façade is a large, metal canopy that extends across approximately one-third of the building. This canopy is supported by steel posts and encloses a 20-ton crane used to transport steel cylinders. The first floor of this façade has a one-story section of poured-concrete. This section of the building has a steel and glass pedestrian entrance and two garage bays with 24-light steel and glass overhead-track doors. To the south of the first floor of this concrete section is an exterior of transite panels. On this section of the façade is a garage bay with an overhead-track door. Also on this section are three original two-light steel and glass pedestrian doors. The upper façade lacks fenestration except for a two-light steel and glass door on the second story, accessed by a steel staircase. Attached to this section of the façade is a second 20-ton crane for cylinder loading.

The south façade has a wall of transite panels and the only fenestration is an overhead-track steel door in the central bay of the first floor. The west façade has three pedestrian doors on the first floor, which are original, two-light steel and glass design. Also on the first floor are two rectangular louvered vents. The upper façade lacks fenestration except for a pedestrian entrance on the second story that has an original two-light steel and glass door. This door is accessed by an exterior-wall staircase. At the southwest corner of the building is an attached steel tower that rests on a concrete foundation. This tower supports an exhaust pipe that vents "lite gases" from the building.

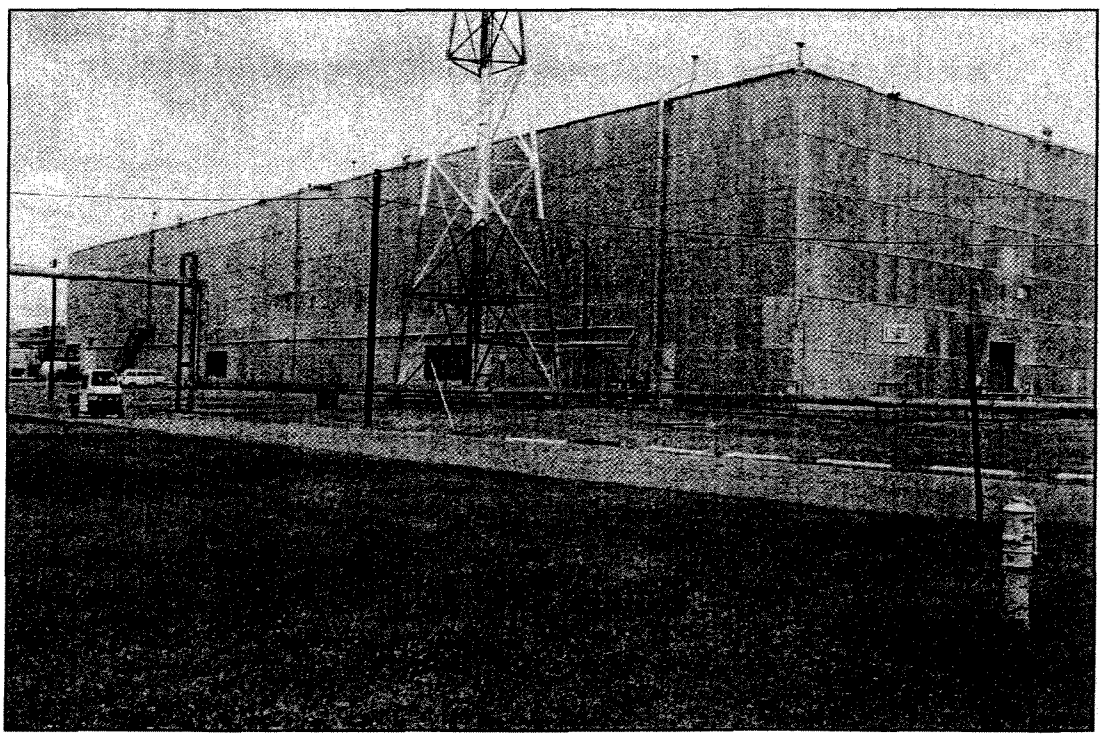

Figure B.9. Building C-310, south and west façades.

Building C-315—Surge and Tails Building (Survey Number MCN-116) and Building C-620—Air Compressor Building (Survey Number MCN-202)

This is a two-story building that shares a common party wall on the south façade with building C-620. The Surge and Tails Building is the site of depleted UF_6 extraction from the gaseous diffusion process and its placement into steel cylinders. Completed in 1952, this building is of steel and concrete construction. On the west façade of the building is a partial-width wall of poured-concrete on the first floor. Building C-315 has a poured-concrete foundation, a built-up flat roof, and an exterior of transite panels. The upper façade and rest of the first story has an exterior of transite panels. In the concrete section is a pedestrian door with an original two-light steel and glass door. This façade also has a garage bay with an overhead steel track door. On the upper façade is an entrance with a steel and glass door that is reached by a steel staircase. Extending from the upper façade of this building is an enclosed steel tie line that rests on steel piers designated as C-315-331. The north façade of the building lacks fenestration except for two louvered vents.

The east façade of the building also has a partial-width wall of poured-concrete. Within this wall is a pedestrian entrance with an original steel and glass door and four garage bays with steel overhead-track doors. Across the width of the building is a large metal canopy. The canopy protects the loading dock area and beneath the canopy is a 20-ton crane for handling the uranium cylinders.

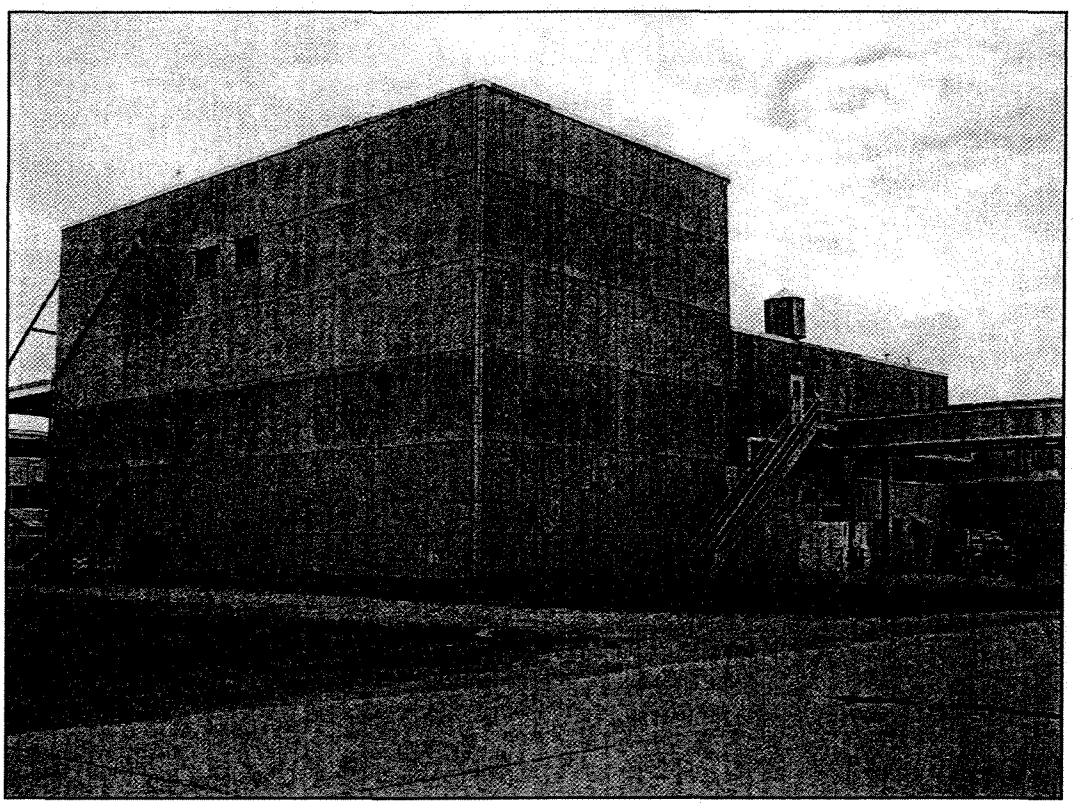

Figure B.10. Building C-315, north and west façades.

Building C-620 – Air Compressor Building (Survey Number MCN-202)

Attached at the south façade is a one-story, rectangular-plan building built in 1953, which contains air-compressing equipment. Designated Building C-620, it has a poured-concrete foundation, a built-up flat roof, and an exterior of transite panels. On the east façade is a pedestrian entrance with a two-light steel and glass door. On the south (main) façade is a similar entrance at the southwest corner of the building. This façade also has a garage bay at the southeast corner with a steel overhead-track door. This façade displays two louvered vents. Attached to the west façade is a wing that has a garage bay on the south façade with an overhead steel track door. The west façade has an attached concrete-block wall containing electrical transformers.

Figure B.11. Building C-620, south and west façades.

Building C-331 – Process Building (Survey Number MCN-119)

Building C-331 was completed in 1952 and contains cascade machinery used in the gaseous diffusion process. The building has a built-up flat roof, a poured-concrete foundation, and an exterior of transite panels. The north façade is incised with large steel support posts extending the width of the building. This recessed section is referred to as a "truck alley" and provides protected access to the building for vehicles and railroad cars. Above the truck alley are eight sets of removable steel hatches that allow process equipment to be moved from or to the truck alley by interior building access. The first floor within this recessed façade has four entrances, each with paired sliding-track steel doors. These doors are set within concrete surrounds. The upper façade of the north elevation lacks fenestration except for four pairs of exhaust vents. This façade also features three sets of enclosed rectangular exhaust ducts that are grouped in sections of three. On the first floor recessed section are rectangular louvered vents between the four entrances.

On the west elevation, this building has two pedestrian doors of original steel and glass design on the first floor. On the second floor in the central bay is a steel and glass door accessed by an exterior-wall steel staircase. On the first floor are rectangular louvered vents. The upper façade lacks fenestration except for the pedestrian door. This façade displays two projecting rectangular exhaust ducts on the upper façade. On this façade is a tie line, designated C-310-331, which connects with Building C-310.

On the south façade are five garage bays on the first floor with steel overhead-track doors. Between the doors are rectangular louvered vents. The upper façade lacks fenestration except for four exhaust vents. Projecting from the main block of the building are three sets of rectangular exhaust ducts grouped together in sections of three. From the central bay of the building is a tie line that connects with Building C-333 and is designated as C-331-333. This tie line is enclosed with sheet metal undulated panels and rests on steel piers.

The east façade of the building has a pedestrian entrance on the first floor with a steel and glass door. It also has a recess truck loading and unloading ramp at the southeast corner. Projecting from this façade are two bays of exhaust ducts on the upper façade and metal exhaust vents. On the first floor are rectangular louvered vents.

Building C-333 – Process Building (Survey Number MCN-125)

This building is a large processing facility and contains the cascade machinery used in the gaseous diffusion extraction process. The building was completed in 1952. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of transite panels. The main (north) façade has a recessed or incised first-floor level. This level has a series of steel posts, which support the upper façade. This first-floor level has five pedestrian entrances. Each entrance is set within a concrete-block surround and has original three-panel sliding-track steel doors. With the exception of these doors, the first floor level lacks fenestration and the exterior-wall material is of transite panels. The upper façade of the north elevation is also of transite, and in the center of the building is an original, two-light steel and glass door that leads to an exterior-wall steel staircase. There are three elevated bridges, or tie lines, that connect buildings C-333 and C-331 on the north façade. Designated C-331-333-A, -B, and -C, these are enclosed walkways of structural steel. They have elliptical roofs and walls of steel panels and rest on a steel post foundation. With the exception of three exhaust fans and the tie line, the upper façade lacks additional fenestration.

The east façade of the building has 12 projecting exhaust ducts on the upper level. The first-floor level is composed of a continuous band of rectangular louvered windows that have metal grills instead of glass. These windows are grouped together in a series of five openings, each divided by steel mullions. Below the windows are rectangular steel panels. The windows are continuous except for the garage-bay openings. There are five garage bays on this façade that have original steel overhead-track doors. Adjacent to each garage door are pedestrian doors of steel design. These doors have had their glass lights covered with steel panels. The upper façade lacks fenestration except for six exhaust vents and two pedestrian doors near the northeast and southeast corners. These doors are of two-light steel and glass design, and lead to exterior-wall steel staircases. Attached to this façade are two structural support systems for the electric cables. These systems are held by steel posts and protect and enclose the electric lines coming from the transformers to the building.

The west façade of the building has 12 projecting exhaust ducts on the upper façade. This façade also has window and door openings similar to those on the east façade and features a projecting entrance bay at the center of the façade that contains a garage-entrance bay. This entrance has a two-panel, steel overhead-track door. Adjacent to this entrance is a pedestrian door of single-light steel and glass design. An elevator is also on the west side.

The south façade of the building has a recessed or incised first-floor level. This recessed area contains a railroad spur line, and opening onto this spur line are five entrances. The lower level of this façade has steel posts that support the upper façade. The upper façade on this elevation lacks fenestration. The entrances on the first floor are set within concrete-block surrounds and are original, three-panel sliding-track steel-design doors. This façade has a one-story loading dock wing. The north and south truck alleys have hatch access to the crane on the second floor for equipment movement into and out of the building. There is a cylinder storage pad to the east which is equipped with a a 20-ton steel overhead crane for moving UF_6 cylinders into and out of the facility. The roof of the west and south walls of this wing are transite panels.

Building C-333-A–Feed Vaporization Facility (Survey Number MCN-125)

Attached to the south wall of this loading-dock wing is a one-story concrete-block building, C-333-A, which is a Feed Vaporization Facility, that was added in 1962. This wing has a concrete foundation, a built-up flat roof, and exterior walls of concrete-block. On the east façade is a fixed, 12-light steel and glass window. On the south façade of C-333-A are four entrances with original solid-steel single-light and four-light steel and glass doors. Windows on this façade are original, nine-light steel and glass hinged design. On the west façade are two entrances with original four-light steel and glass doors.

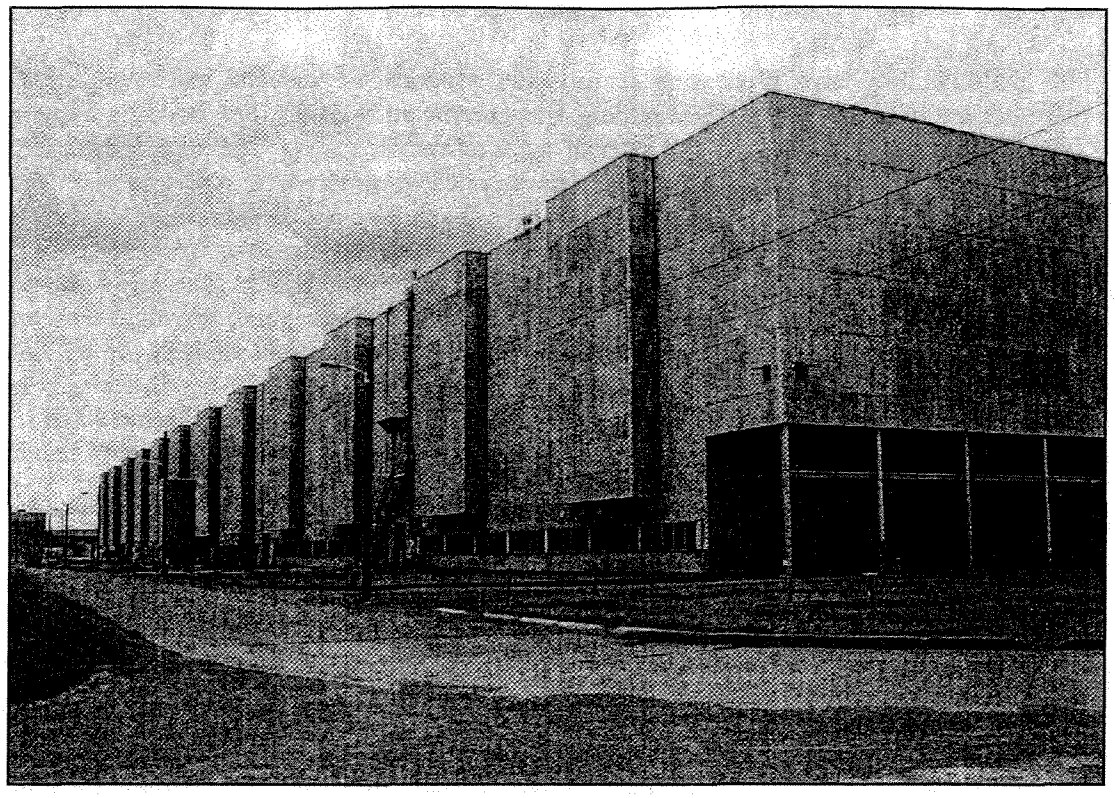

Figure B.14. Building C-333, west façade.

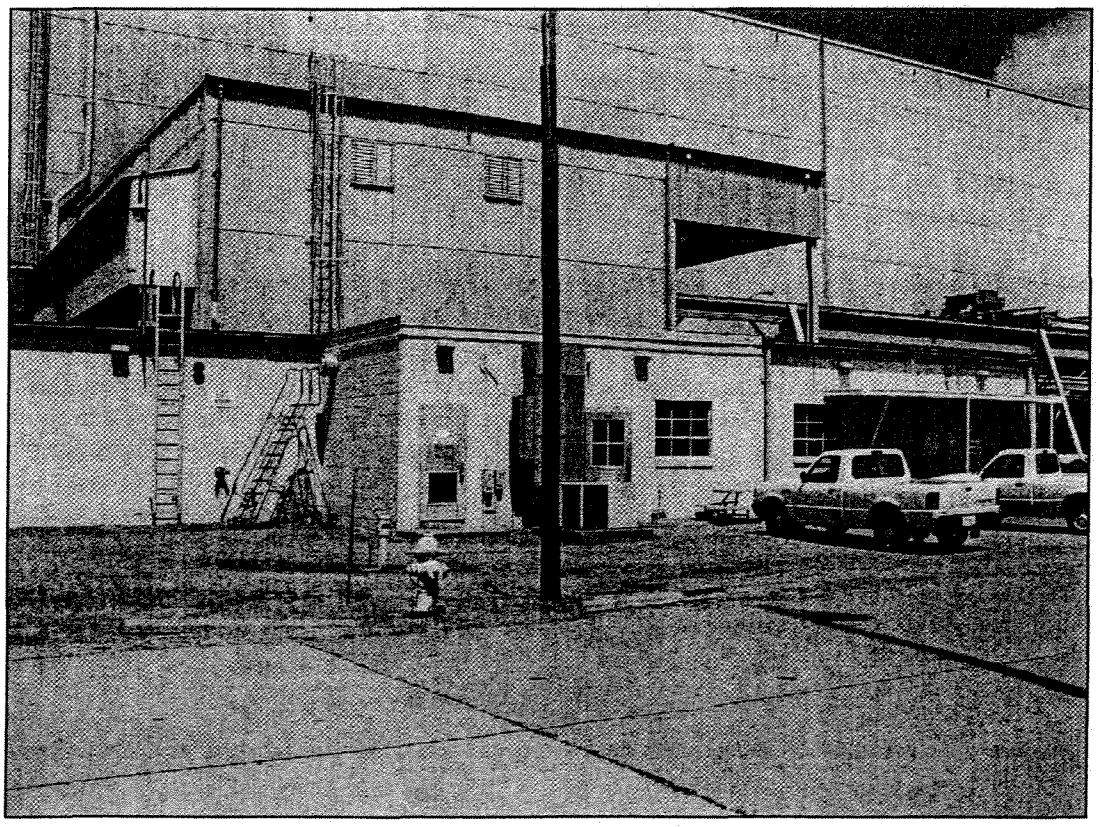

Figure B.15. Building C-333-A, south façade.

Building C-335 – Process Building (Survey Number MCN-127)

Building C-335 is a process building and contains cascade machinery used in the gaseous diffusion process. The building was constructed and placed in service in 1954. The building has a poured-concrete foundation, built-up flat roof, and an exterior of transite panels. On the west façade, the first-floor section is incised with the upper story supported by steel posts. This recessed first story has four entrance bays set within concrete-block surrounds. This recessed section is referred to as a "truck alley" and provides protected access to the building for vehicles and railroad cars. Above the truck alley are eight sets of removable steel hatches that allow process equipment to be moved from or to the truck alley by interior building access. Each entrance bay has paired sliding-track steel doors. Between the entrance bays are rectangular steel-louvered vents. On the upper façade is a pedestrian entrance, which has an original two-light steel and glass door. This door is accessed by an exterior-wall steel staircase. The upper façade on this elevation has three rectangular projecting bays of transite panels, each which enclose three exhaust ducts. There is no other fenestration on this façade except for four pairs of steel exhaust vents.

The north façade is composed primarily of transite panels with projecting exhaust ducts. The first floor of the building has a series of rectangular steel-louvered vents. In the central bay is a two-light steel and glass door on the second story, which is accessed by an exterior-wall staircase. Projecting from the upper façade are two rectangular bays. At the northeast corner of the façade is a garage-bay entrance with an overhead-track steel door.

The east façade of the building has five pedestrian entrances on the first floor with original single-light and two-light steel and glass doors. This façade also has five garage bays with both original sliding-track and overhead-track steel doors. On the first floor of this façade are a series of rectangular louvered vents. On the upper façade is a two-light steel and glass door accessed by a steel staircase. The upper façade has three, projecting, rectangular bays with transite-sided panels. This upper façade also has four pairs of exhaust vents.

The south façade of the building is composed primarily of transite panels with projecting exhaust ducts. The first floor of the building has a series of rectangular steel-louvered panels. In the central bay of the upper façade is an original two-light steel pedestrian door accessed by an exterior-wall staircase. The upper façade of this building has two projecting rectangular bays of transite panels.

On the east façade of the building are three enclosed steel tie lines that connect with Building C-337 and are designated as C-335-337 A, B, and C. On the south façade is a tie line that connects C-335 with C-331, and is designated as C-331-335.

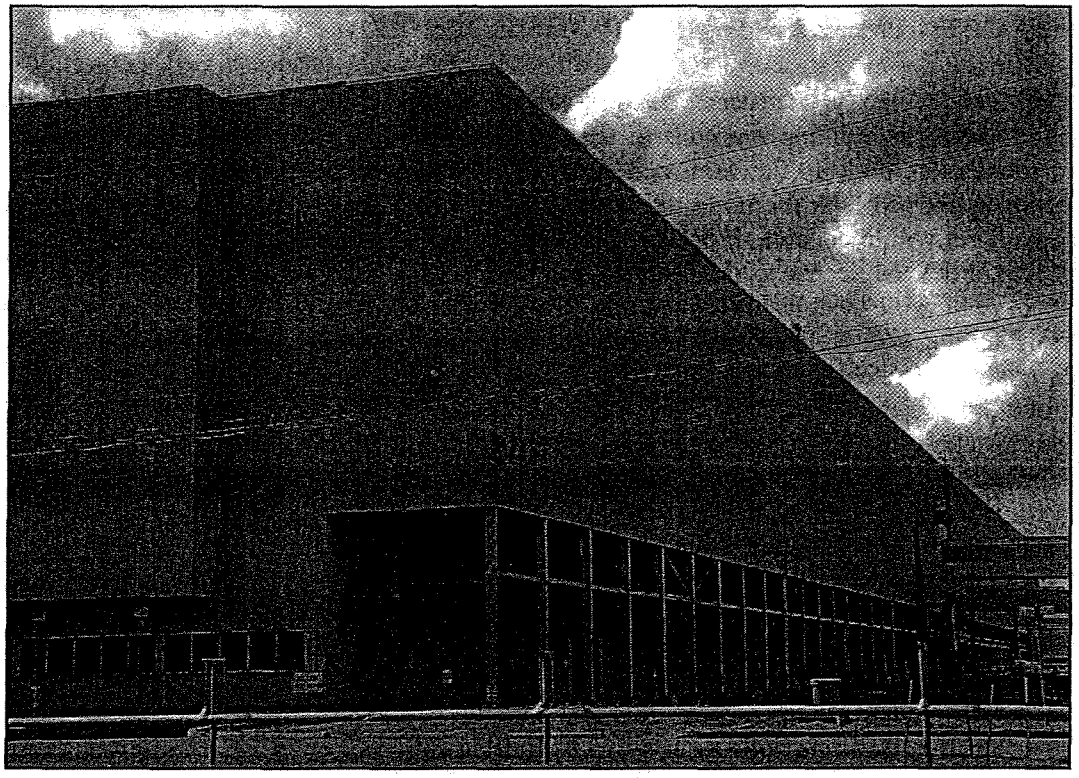

Figure B.16. Building C-335, west side.

Building C-337 – Process Building (Survey Number MCN-131)

Building C-337 is a large process building that contains cascade machinery used in the gaseous diffusion process. Constructed in 1954, Building C-337 is a two-story rectangular-plan building of steel-frame construction. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of transite panels. The west façade has an incised first-floor section with the upper façade supported by steel posts. The first floor has five entrance bays, which have concrete-block surrounds. Each entrance has original steel sliding-track doors. The upper façade lacks fenestration except for three metal exhaust vents and six pipes that connect at grade with large pipes extending to Building C-335. The west façade also has three tie lines, C-335-337 A, B, and C, which connect with Building C-335. These tie lines are of corrugated steel construction and are supported by steel posts.

The north façade has five garage bays that have original steel overhead-track doors. Adjacent to each of the garage bays are pedestrian doors of original two-light steel and glass design. Between these entrances are continuous openings of rectangular, steel-louvered vents. On the upper façade of the building are 12 projecting exhaust ducts with transite panels. On the upper façade are also three pairs of steel exhaust panels. This elevation has two entrances on the upper façade with two-light steel and glass doors that are accessed by steel staircases.

The south façade of the building is identical to the north façade, which has five garage bays with original steel overhead-track doors. Adjacent to each of the garage bays are pedestrian doors of original two-light steel and glass design. Between these entrances are continuous openings of rectangular, steel-louvered vents. On the upper façade of the building are 12 projecting exhaust ducts with transite panels. On the upper façade are also three pairs of steel exhaust panels. This elevation has two entrances on the upper façade with two-light steel and glass doors that are accessed by steel staircases. The only variation is the central projecting bay on the first floor, which has a garage bay with a two-panel, steel overhead-track door and a two-light steel and glass pedestrian door. The truck alleys have hatch access on the second floor for equipment movement into and out of the building.

The east elevation of the building is also incised and has steel posts supporting the upper façade. This façade has five entrances set within concrete-block surrounds and with sliding-track steel doors. The upper façade lacks fenestration except for two steel exhaust fans.

Building C-337-A – Process Building (Survey Number MCN-132)

Attached to the C-337 east façade is a two-story wing designated at C-337-A, the Feed Vaporization Facility, built in 1960. This wing is composed of two sections: a one-story section of concrete-block and a large two-story section of steel frame. The two-story section has an exterior of transite and fiberglass panels. On the east façade of this section is a garage bay with a steel overhead-track door. The one-story, concrete-block wing has two entrances on the main (east) façade. The south bay entrance has an original four-light steel and glass door. The north bay entrance has ca. 1980 double doors of single-light steel and glass design. On the north façade of this wing is a ca. 1980 single-light steel and glass door. Attached to the south façade of Building C-337-A is a 20-ton crane-and- track system for loading and unloading steel cylinders. To the south of this crane, the incised section of the main building is enclosed with steel panels. This creates a protected enclosure for the railroad track that extends into this area.

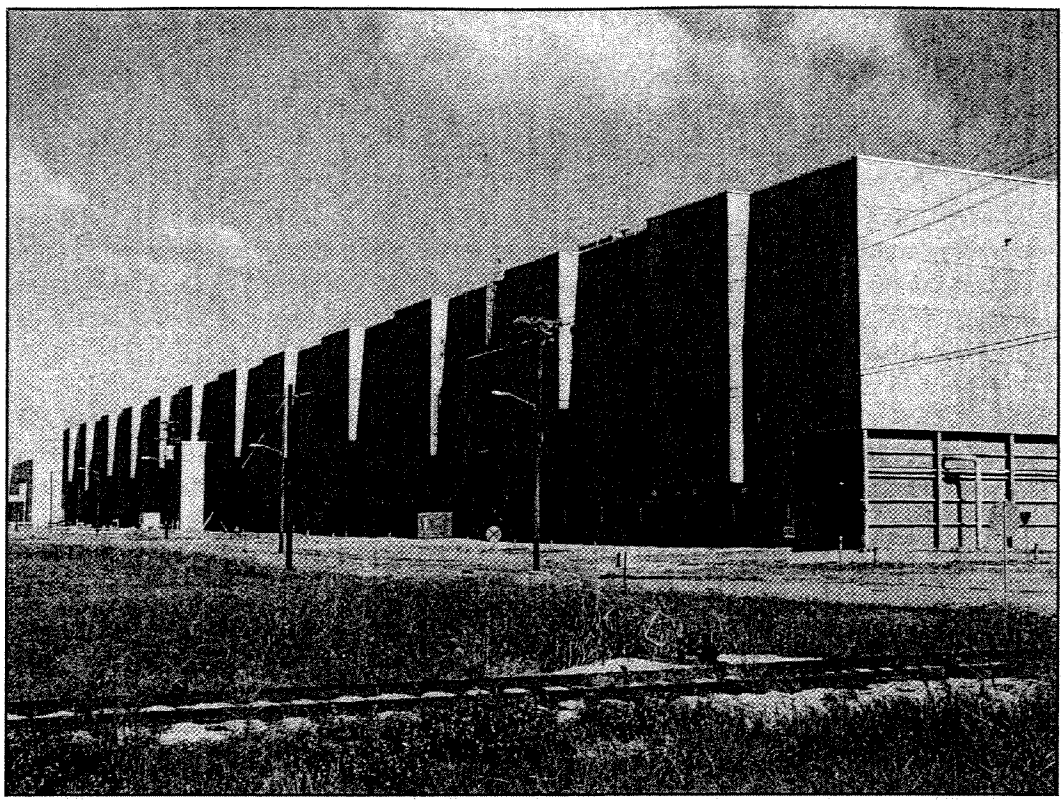

Figure B.18. Building C-337, south façade.

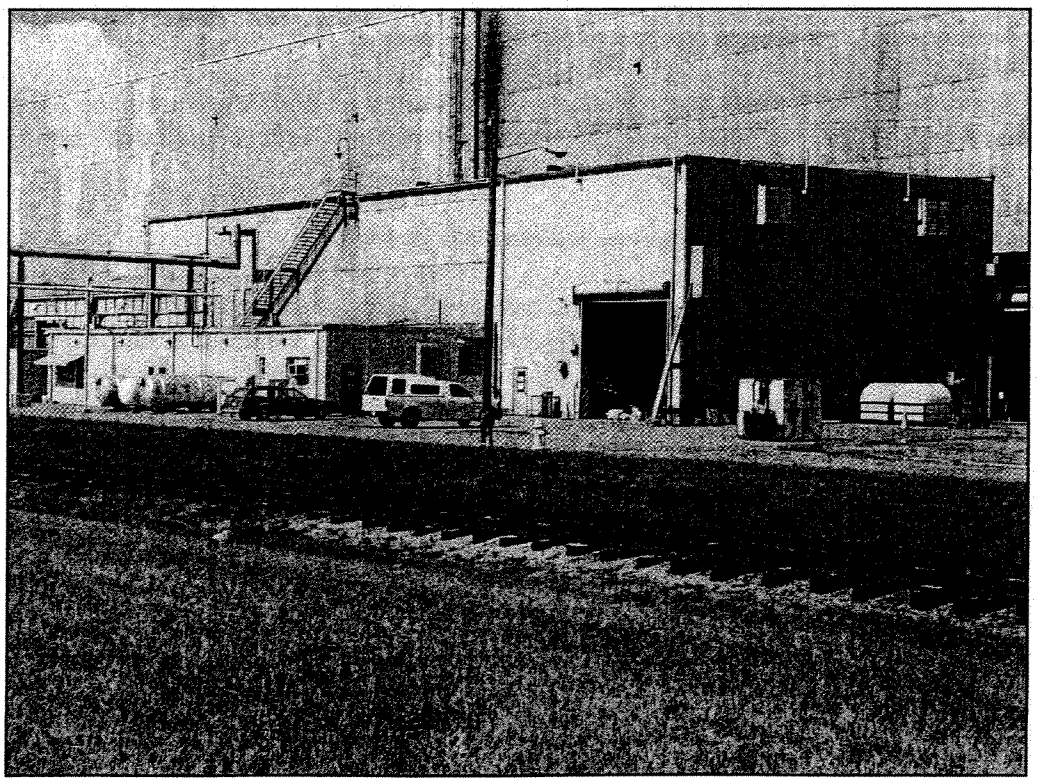

Figure B.19. Building C-337 A, north and east façades.

Building C-340 – DOE Metals Plant Complex (Survey Number MCN-133)

The DOE Metals Plant Complex consists of seven interrelated buildings or wings completed in 1955. The building is presently undergoing decontamination prior to its demolition. The main section is a five-story steel and concrete building. The building has a poured-concrete foundation, a built-up flat roof, and an exterior of transite panels. On the west façade on the first floor is an entrance with a sliding-track steel door. On the upper façade are louvered exhaust vents and six-light fixed windows. On the north façade of the building are large louvered vents and fixed two-light steel windows. The north façade has three wings that extend in a stepped progression from the façade. The four-story wing projects from the façade and has an exterior of transite panels. Above the four-story wing on the main section are two pedestrian entrances on the fourth and fifth floors. These entrances have original two-light steel and glass doors connected by a steel staircase.

The three-story wing has a conveyor that connects with Building C-340-D. Extending from the roof of the three-story wing is a concrete bay with a gable metal roof and paired, 12-light steel and glass windows. In the first floor of this wing on the west façade is a garage door with an overhead-track steel door. On the north façade of this wing is a pedestrian entrance with a two-light steel and glass door. Also on the west façade is an attached circular storage tank of hollow-core tile. This tank rests on a raised concrete-pier foundation. Attached on the north façade is a one-story wing with a built-up flat roof. This wing has two garage-bay entrances on the west façade with steel overhead-track doors. The north façade of this wing lacks fenestration except for rectangular louvered vents. The east façade of the building has three pedestrian entrances located in the one- and two-story wing with original two-light steel and glass doors. The remaining fenestration on the one- and two-story wings on this façade has rectangular louvered vents.

In the upper façade of the fifth-story section are rectangular louvered vents. Attached to the south façade of the two-story section is a one-story concrete-block wing. This wing has original 12-light steel windows. These windows have a central four-light hinged panel, and several windows have added metal panels. On the south façade of this wing are eight window bays and an entrance with an original two-light steel and glass door. The south façade of the five-story section lacks fenestration on the upper façades. The first floor has two garage bays with overhead steel track doors. On the east façade of the two-story wing is a garage bay with an overhead steel track door.

Building C-340-D is attached to the C-340 complex via a conveyor system. Building C-340-D is a one-story, prefabricated metal building. The building has a poured-concrete foundation, a gable roof of crimped metal, and an exterior of crimped metal panels. On the east and west façades are fixed, nine-light steel and glass windows. The west façade has a pedestrian entrance that has been enclosed with a solid-steel door. The west façade also displays large louvered exhaust vents. The north façade has a nine-light steel and glass window and a pedestrian entrance with a six-light and single panel steel and glass door. On the east façade is a large enclosed steel conveyor system that is attached to the west façade of Building C-340. On the east façade is also a garage bay with paired sliding-track steel doors. On the south façade of the building is a garage-bay entrance with sliding-track steel doors.

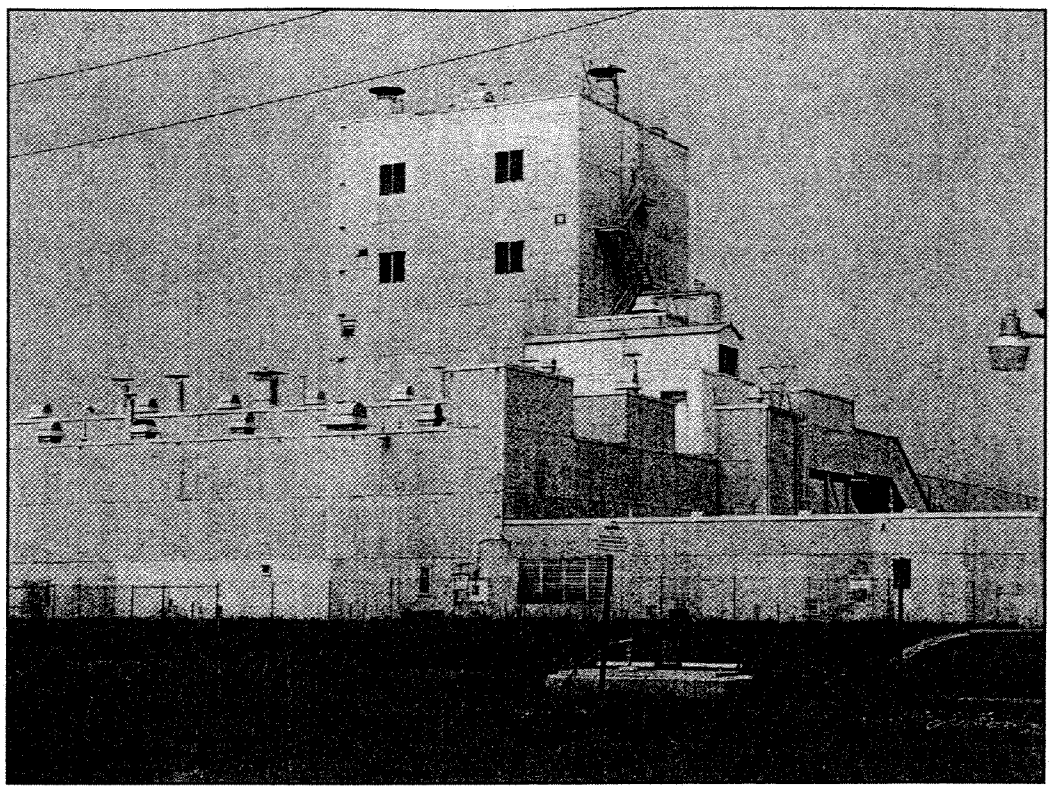

Figure B.20. Building C-340, north and east façades.

Building C-410 Complex – Feed Plant (Survey Number MCN-148)

The C-410 Feed Plant complex was constructed in a series of phases between 1953 and 1957. The main C-410 building and its expansions were designed by Singmaster & Breyer, Engineers of New York. The original section of the complex constructed in 1953 consists of the existing central portion of C-410, the hydrofluoric acid (HF) neutralization building (Building C-410-C), the neutralization (sludge) lagoon (C-410-B), a hydrogen holding tank, a concrete holding basin (C-410-E), and four HF storage tanks (C-410-F, -G, -H, and -J). After placing the building in operation, it was determined that its original size was inadequate and the building was expanded to the east and west in 1954 and 1955. The east expansion was built to contain two additional cell rooms and related operations while the west expansion was built as a hopper storage area. During these years, a second phase east expansion was also constructed which held an additional cell room and transformer room. In 1956, Building C-420 was constructed and consisted of a multi-story tower of steel framing and a one-story concrete-block wing. Giffels and Vallet, Inc. of Detroit designed Building C-420. Another addition, Building C-411, was added to the east façade of the complex in 1957 to house a cell maintenance area.

The C-410 Complex is located in a central position among the main process buildings. The complex served as a UF_6 manufacturing plant for the cascade diffusion system. Within the complex, workers converted a powder form of uranium into a gas, which the cascade diffusion process requires. In 2002, an environmental study concluded that the C-410 Complex had a high contamination level of radioactive material and the facility posed a potential health risk to workers and the general public. Practically all parts of the facility were contaminated, and adaptive reuse of the buildings and structures of the C-410 Complex was not feasible. In 2003, Thomason and Associates completed documentation for this complex in accordance with guidelines set forth by the SHPO of the KHC. This documentation is contained in the report, *Cultural Resource Survey and National Register Assessment, C-410 Complex, Paducah Gaseous Diffusion Plant, McCracken County, Kentucky*. The DOE is presently undertaking the D&D of the complex to diminish health risks to PGDP workers and the surrounding public.

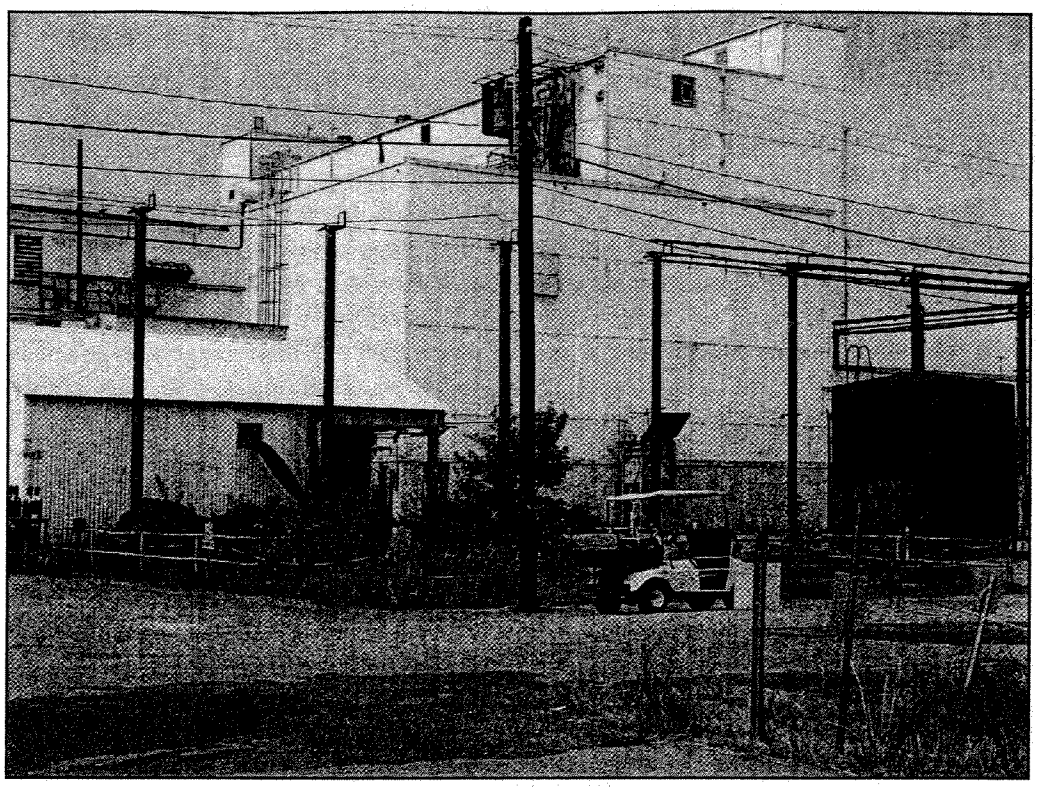

Figure B.21. Building C-410/C-420 Complex, north façade.

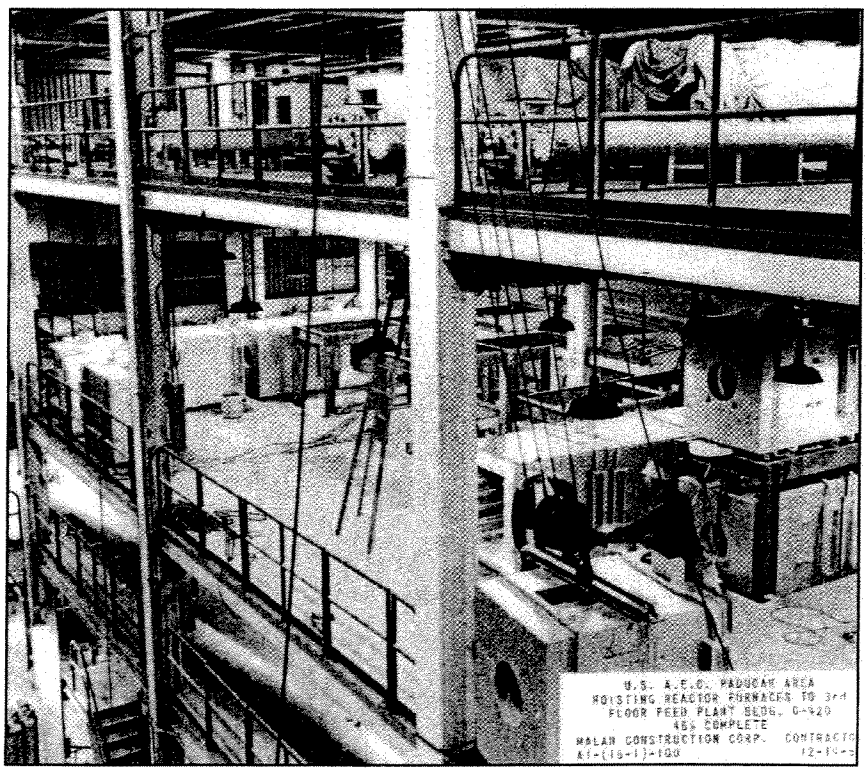

Figure B.22. Construction of Building C-420 in December 1955.

Switchyards and Switch Houses

The switchyards and switch houses supply and control the electrical power to each of the four process buildings. There are four main switchyard and switch house complexes that provide electrical power to the process buildings: C-531 supports Building C-331 and the plant auxiliary buildings such as C-100, C-310, C-315, C-600, and C-720; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide support and control in the event of fires. The electricity from the switchyards is transferred into the process buildings via overhead metal conduits. Figure B.23 shows construction of the switchyards in 1954. Figure B.24 shows construction of the C-531 Switch house and Switchyard. Table B.2 lists the switchyard facilities that have been surveyed and are described in more detail.

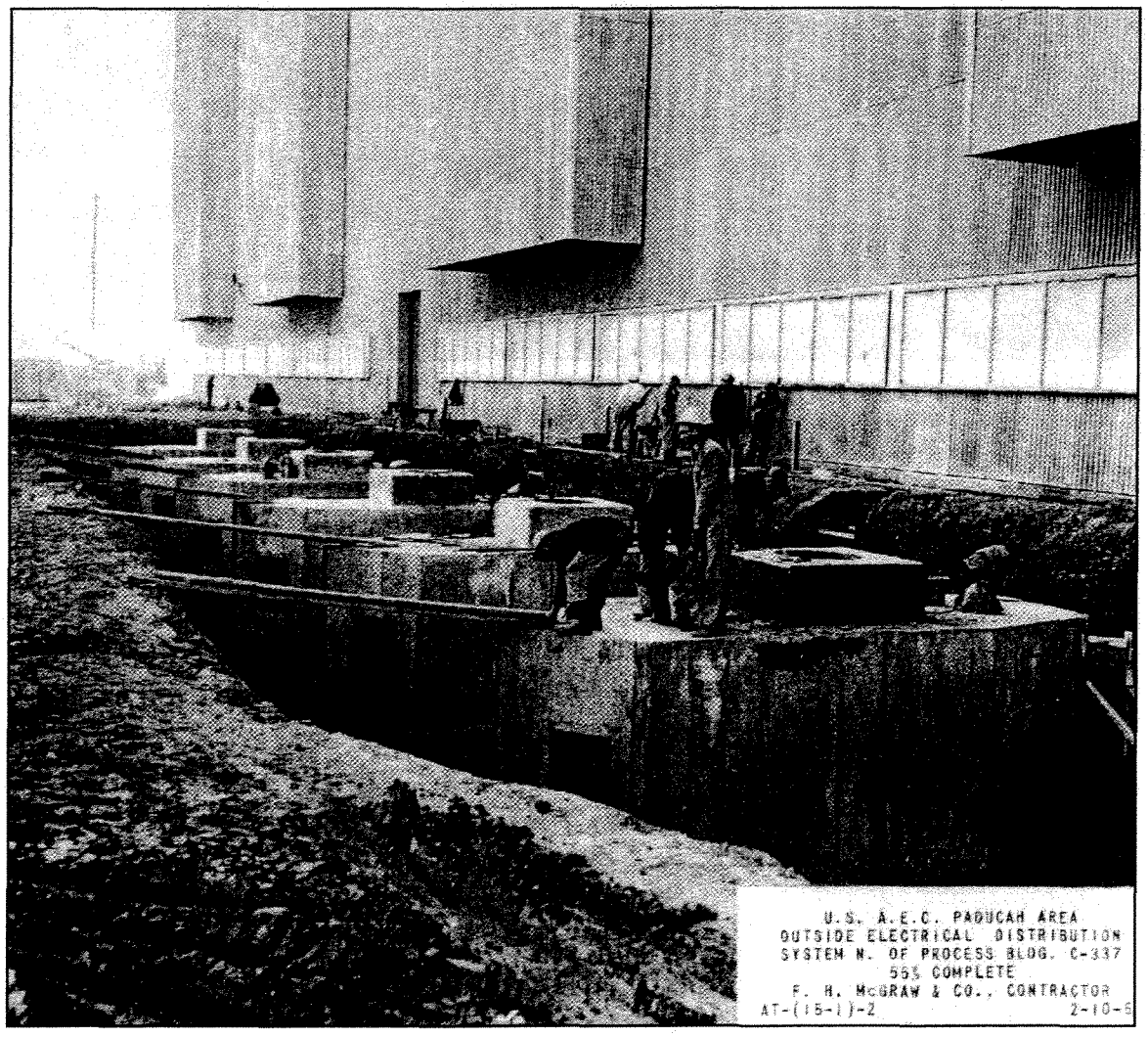

Figure B.23. Construction of the outside electrical distribution system for Building C-337 in February 1954.

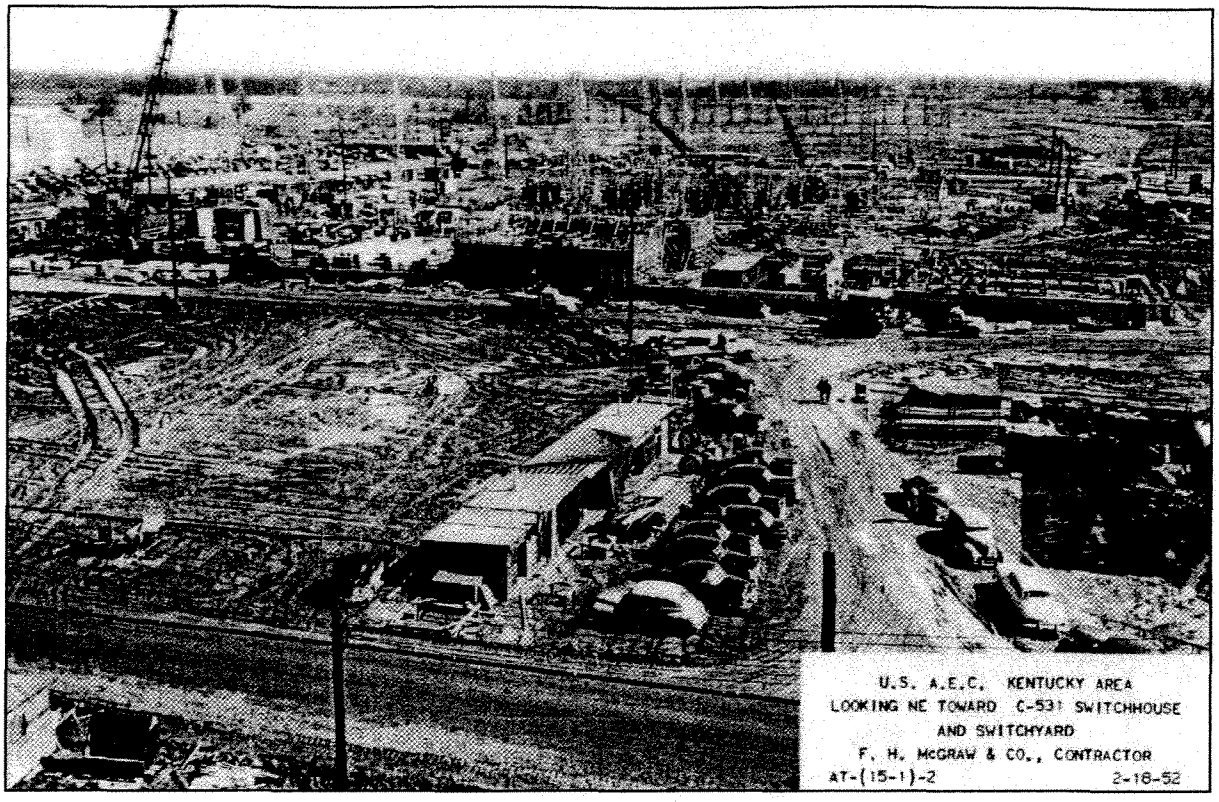

Figure B.24. Construction of the C-531 switch house and switchyard in February 1952.

Table B.2. Switchyards and switch house information

Switchyards and Switch Houses	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-531-1	B.25	Switch House	31400	1952	Yes – Contributing
C-531-2	B.26	Switchyard	135160	1952	Yes – Contributing
C-531-3A	B.27	Fire Valve House No. 1	144	1952	Yes – Contributing
C-531-3B	Appendix D MCN-158	Fire Valve House No. 2	144	1952	Yes – Contributing
C-532	B.28	Relay House	7784	1952	Yes – Contributing
C-533-1	B.29	Switch House	37360	1953	Yes – Contributing
C-533-2	B.30	Switchyard	218860	1953	Yes – Contributing
C-533-3A	B.31	Fire Valve House No. 1	144	1953	Yes – Contributing
C-533-3B	B.31	Fire Valve House No. 2	144	1953	Yes – Contributing
C-533-3C	B.31	Fire Valve House No. 3	144	1953	Yes – Contributing
C-533-3D	B.31	Fire Valve House No. 4	144	1953	Yes – Contributing
C-535-1	B.32	Switch House	28000	1954	Yes – Contributing
C-535-2	Appendix D MCN-162	Switchyard	165680	1954	Yes – Contributing
C-535-3A	B.33	Fire Valve House No. 1	144	1954	Yes – Contributing
C-535-3B	Appendix D MCN-163	Fire Valve House No. 2	144	1954	Yes – Contributing
C-535-4	Appendix D MCN-164	Test Shop	480	1954	Yes – Contributing
C-536	B.34	Relay House	7784	1954	Yes – Contributing

Table B.2. Switchyards and switch house information (Continued)

Switchyards and Switch Houses	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-537-1	B.35	Switch House	42140	1954	Yes – Contributing
C-537-2	Appendix D MCN-167	Switchyard	284200	1954	Yes – Contributing
C-537-3A	B.36	Fire Valve House No. 1	144	1954	Yes – Contributing
C-537-3B	B.36	Fire Valve House No. 2	144	1954	Yes – Contributing
C-537-3C	B.36	Fire Valve House No. 3	144	1954	Yes – Contributing
C-537-3D	B.36	Fire Valve House No. 4	144	1954	Yes – Contributing
C-537-4	PHOTO NOT AVAILABLE	Test Shop	480	1954	Yes – Contributing
C-540-A	B.37	Oil Pump House	312	1952	Yes – Contributing
C-541-A	B.38	Oil Pump House	312	1952	Yes – Contributing

Building C-531-1 – Switch House (Survey Number MCN-150)

Constructed in 1952, this building was completed to serve as the electrical switch house for the C-331 process building. This is a one-story building of poured-concrete construction. It has a poured-concrete foundation, a built-up flat roof and an exterior of poured-concrete. The exterior walls are scored in a rectangular-pattern design. The entrance on the main (west) façade has a ca. 1990 steel and glass door. This door has a slightly projecting concrete surround. On the south façade is a recessed wing, which has a ca. 1990 solid-steel door on the west façade. On the north façade is a similar wing with a solid-steel door. On the main section's north façade are two rectangular louvered vents. To the north and south of the building are two sets of oil tanks that rest within poured-concrete foundations.

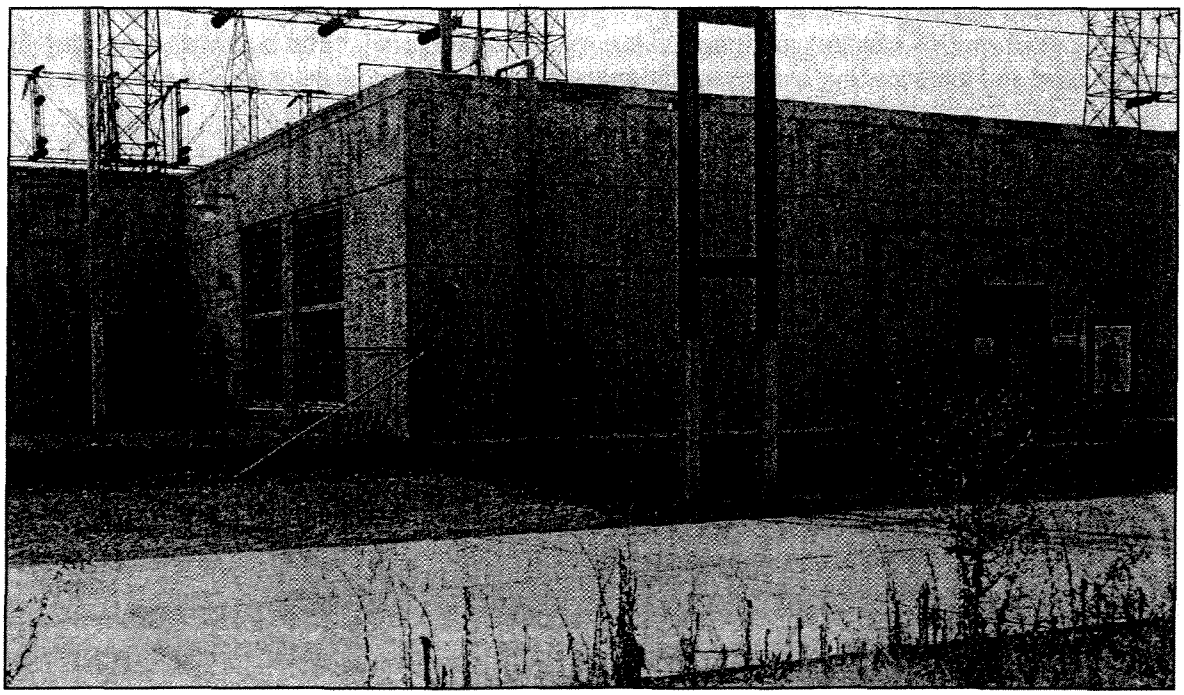

Figure B.25. Building C-531-1, north and west façades.

Building C-531-2 – Switchyard (Survey Number MCN-151)

This switchyard contains electrical equipment and transformers to supply power to the C-331 process building and the plant auxiliary buildings such as C-100, C-310, C-315, C-600, and C-720. Completed in 1952, this electrical equipment is sited on a gravel foundation east of Building C-331.

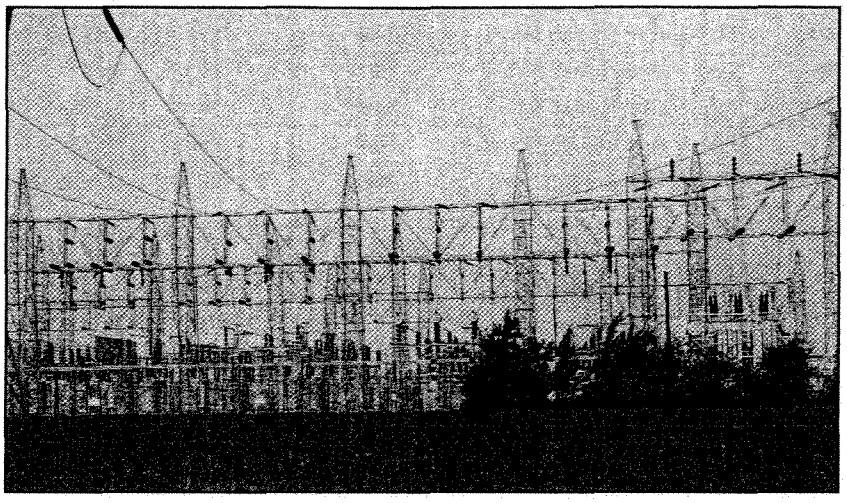

Figure B.26. Building C-531-2, east façade.

Building C-531-3A/C-531-B – Fire Valve Houses No. 1 and No. 2 (Survey Numbers MCN-152 and MCN-153)

Fire Valve House No. 1 and No. 2 were built in 1952 and provide fire protection service for the adjacent switchyard and switch house. These are similar-plan one-story buildings with a poured-concrete foundation—a shed roof of transite panels and exteriors of transite panels. The buildings have nine-light and six-light steel and glass awning windows. Entrances have paired three-light steel and glass doors.

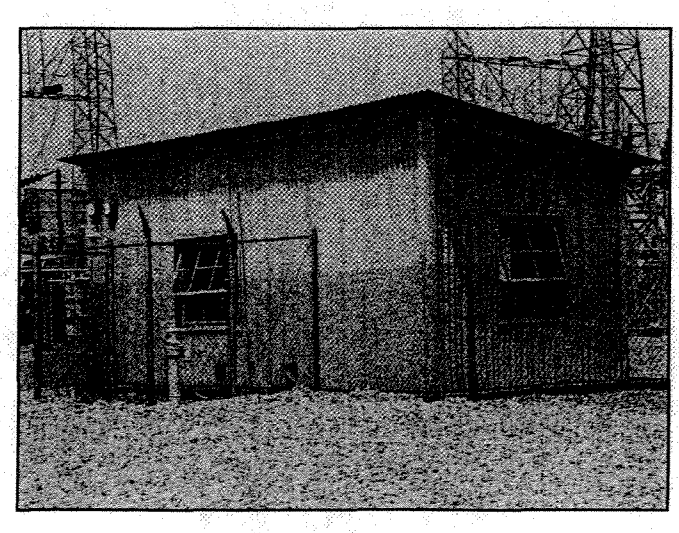

Figure B.27. Building 531-3A, south and east façades.

Building C-532 – Relay House (Survey Number MCN-154)

Building C-532 is an electrical relay house built between the C-531 and C-533 switchyards. The building was constructed in 1952 and is a one-story, reinforced concrete building. The building has a poured-concrete foundation, a built-up flat roof, and an exterior of smooth concrete. On the main (west) façade is a projecting entry bay with ca. 1990 three-light steel and glass doors. Above the doors is a steel panel which encloses the transom area. Above the entrance is a steel canopy. The walls of the building are scored to resemble belt courses and shallower scoring creates a design of rectangular panels. On the south façade is an entrance with a ca. 1990 solid-steel door. This façade also has two steel-louvered vents. On the north façade is an entrance with a ca. 1990 solid-steel door. There is no fenestration on the east façade.

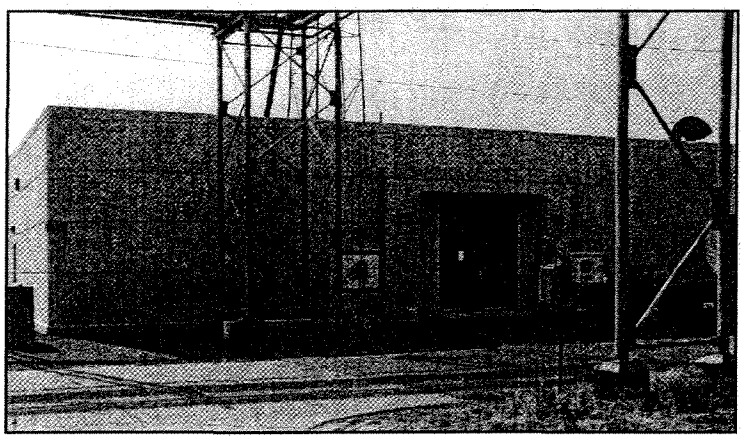

Figure B.28. Building C-532, north and west façades.

Building C-533-1 – Switch House (Survey Number MCN-155)

Built in 1953, this switch house was built to relay and regulate electrical power to the C-333 process building. This is a one-story, reinforced concrete building with a concrete foundation, a flat roof of concrete, and exterior walls of smooth concrete. The main (west) façade has two entrances set within projecting concrete bays. Each entrance has a ca. 1990 single-light steel and glass door. Above each door is a steel awning. The exterior walls of the building are scored into rectangular panels. The building has a louvered vent on the south façade. The north façade lacks fenestration and the east façade is not accessible.

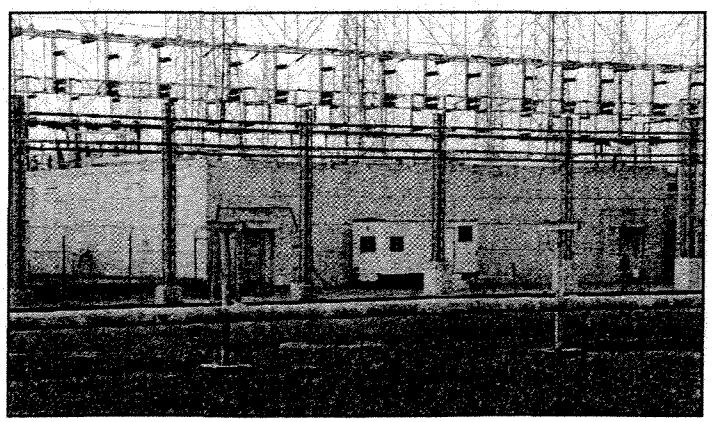

Figure B.29. Building C-533-1, north and west façades.

Building C-533-2 – Switchyard (Survey Number MCN-156)

Building C-533-2 is a switchyard erected in 1953 that supplies electrical power to the C-333 process building. The switchyard is composed of a rectangular concrete and gravel pad containing electrical transformers. These transformers are of steel and supply power via the elevated platforms to Building C-333.

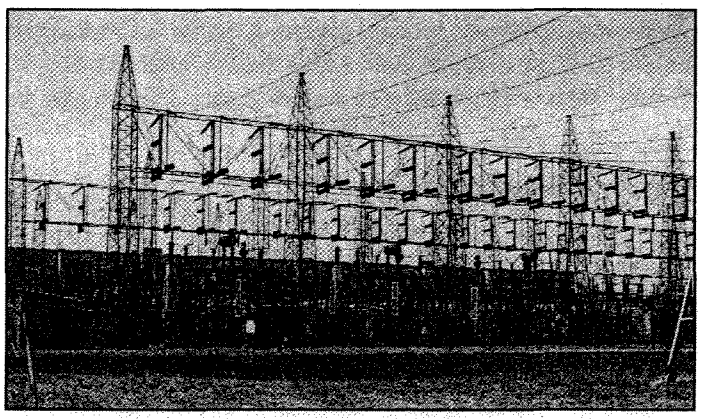

Figure B.30. Building C-533-2, east façade.

Building C-533-3A-D – Fire Valve Houses No. 1–No. 4 (Survey Numbers MCN-157, MCN-158, MCN-159, and MCN-160)

Switchyard C-533-2 contains four identical-plan Fire Valve Houses, C-533-3A, B, C, and D, to provide fire protection for the switchyard's electrical equipment. Built in 1953, these buildings have a poured-concrete foundation, a shed roof of transite, and exterior walls of transite. The building's entrances have original double doors of three-light steel and glass design. Windows are original, four-light and nine-light steel and glass fixed design.

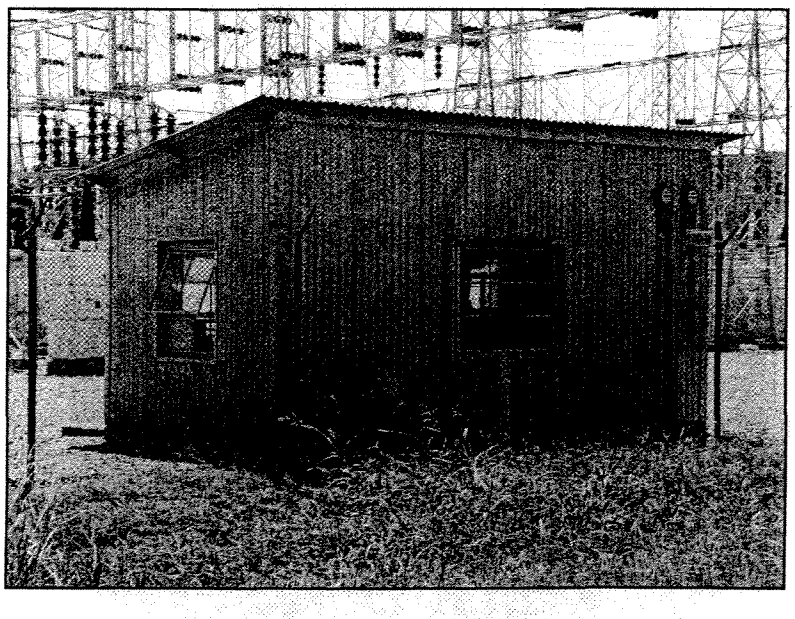

Figure B.31. Building C-533-3A, north and east façades.

Building C-535-1 – Switch House (Survey Number MCN-161)

Constructed in 1954, Building C-535-1 is a one-story, reinforced concrete electrical switch house that regulates power for Building C-335. It has a concrete foundation, a built-up flat roof and an exterior of smooth concrete. On the main (west) façade is an entrance with a ca. 1990 single-light steel and glass door. Over the entrance is a wood and metal canopy. There is no fenestration on the south façade. On the north façade are two steel-louvered vents. The east façade is not accessible.

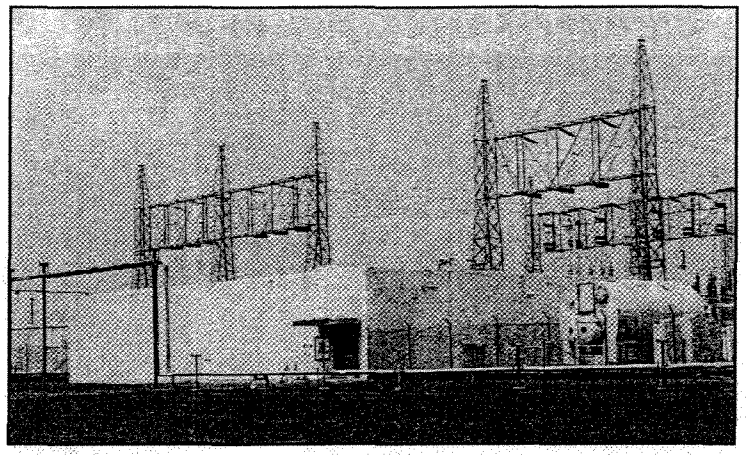

Figure B.32. Building C-535-1, south and east façades.

Building C-535-3A/C-535-3B – Fire Valve Houses No. 1 and No. 2 (Survey Number MCN-163)

Fire Valve House No. 1 and No. 2 were built in 1954 and provide fire protection service for the adjacent switchyard and switch house. These are similar-plan one-story buildings of concrete construction with a poured-concrete foundation, a flat roof, and exterior walls of concrete. The buildings have ca. 1990 two-light steel and glass doors.

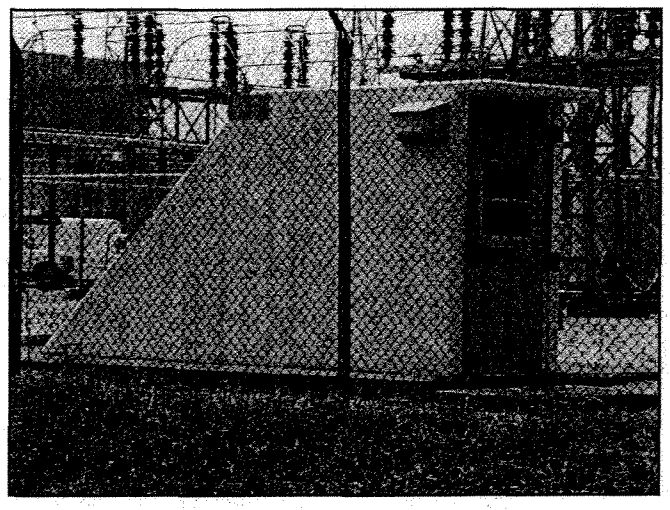

Figure B.33. Building C-535-3A, north and east façades.

Building C-536 – Relay House (Survey Number MCN-165)

Built in 1954, this is a one-story, reinforced concrete, electrical relay house. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of smooth concrete. On the main (south) façade is an entrance with ca. 1990 three-light steel and glass double doors. Over the entrance is a wood and metal canopy. On the west façade is an entrance with a ca. 1980 solid-steel door. On the east façade is a similar door. The only other fenestration on the west, east, and north façades are rectangular, steel-louvered vents.

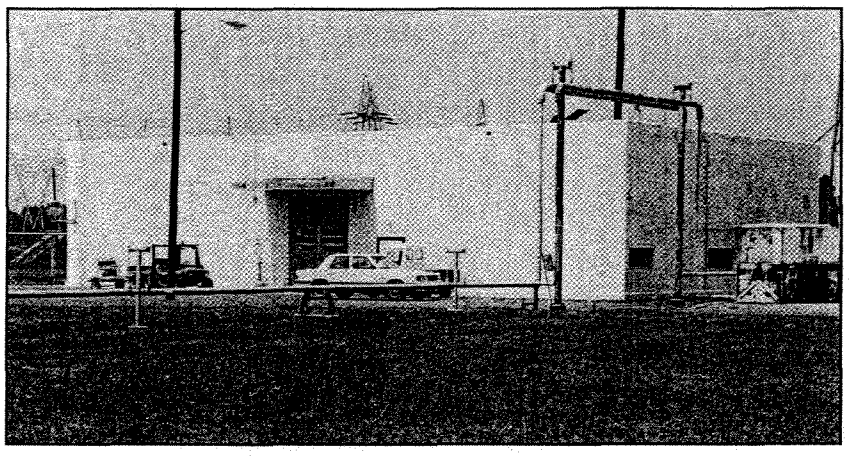

Figure B.34. Building, C-536, south and east façades.

Building C-537-1 – Switch House (Survey Number MCN-166)

Building C-537-1 is a one-story, reinforced concrete electrical switch house built in 1954 that regulates power for C-337 process building. It has a concrete foundation, a built-up flat roof, and an exterior of smooth concrete. On the main (west) façade is an entrance with a ca. 1990 single-light steel and glass door. Over the entrance is a wood and metal canopy. There is no fenestration on the south façade. On the north façade are two steel-louvered vents. The east façade is not accessible.

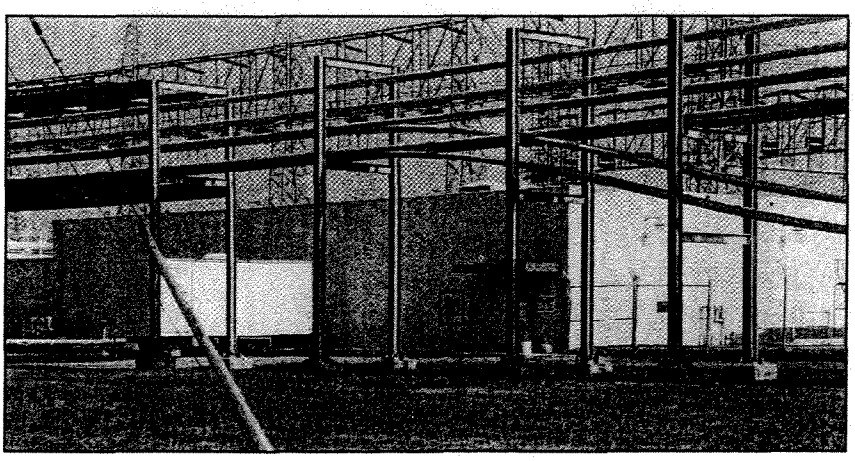

Figure B.35. Building C-537-1, south and east façades.

Building C-537-3A–D – Fire Valve Houses No. 1–No. 4 (Survey Number MCN-168)

Switchyard C-537-2 contains four identical-plan Fire Valve Houses to provide fire protection for the switchyard's electrical equipment. Built in 1954, these buildings are similar-plan one-story buildings of concrete construction with a poured-concrete foundation, a flat roof, and exterior walls of concrete. The buildings have ca. 1990 steel and glass doors.

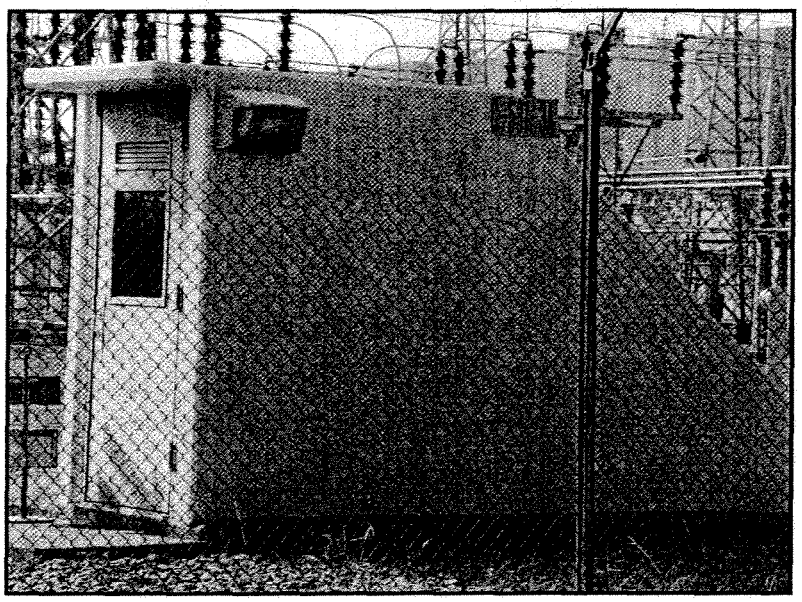

Figure B.36. Building C-537-3A, north and west façades.

Building C-537-4 and Building C-535-4 – Test Shops (Survey Number MCN-169)

Buildings C-537-4 and C-535-4 are both one-story steel buildings used as test shops in the switchyard areas. Built in 1954, these buildings have poured-concrete foundations, built-up flat roofs, and exteriors of transite siding. The buildings have original steel and glass doors and six- and nine-light steel and glass windows. Both buildings are located in restricted areas, and a more detailed description is not possible. Photographs of these properties were restricted.

Building C-540-A – Oil Pump House (Survey Number MCN-170)

Built in 1952, this is a support facility for the adjacent electrical equipment. The building is one-story of steel construction and has a poured-concrete foundation, a shed roof of transite panels, and exterior walls of transite. On the main (east) façade is an entrance with original paired, single-light glass and steel doors. The window on this façade is nine-light steel-and-glass awning design. A similar window is located on the south façade. On the west façade is a nine-light awning window and an entrance with a single-light steel and glass door. On the north façade are two windows. The west bay window is an original six-light steel and glass awning design, while the east bay window has been removed and a window air-conditioning unit has been added.

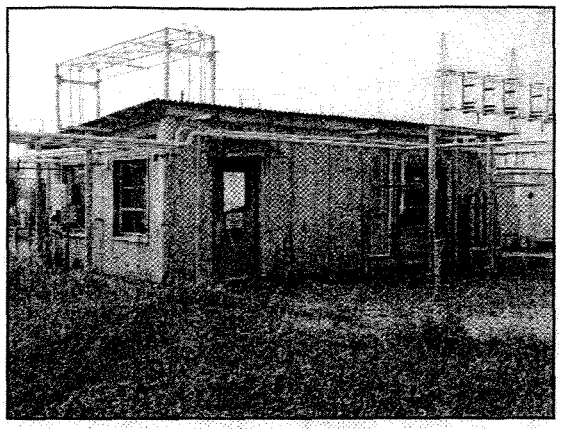

Figure B.37. Building C-540-A, north and west façades.

Building C-541-A – Oil Pump House (Survey Number MCN-175)

This is a one-story oil pump house constructed in 1954. It has a poured-concrete foundation, a shed roof, and exterior walls of transite panels. On the main (north) façade is an entrance with original double doors of three-light steel and glass design. The window on this façade is an original nine-light steel and glass awning design. On the west façade are two six-light steel and glass awning windows. On the south façade is an entrance with an original three-light steel and glass door. This façade also has a nine-light steel and glass awning window. The east façade has a nine-light steel and glass awning window. To the south of the building is a two-tank farm with steel tanks (C-541-E & C) resting on concrete platforms. To the north of the building are two tanks (C-541-B & D), which also rest on concrete platforms. Both tank farms are surrounded by shallow, concrete holding basins.

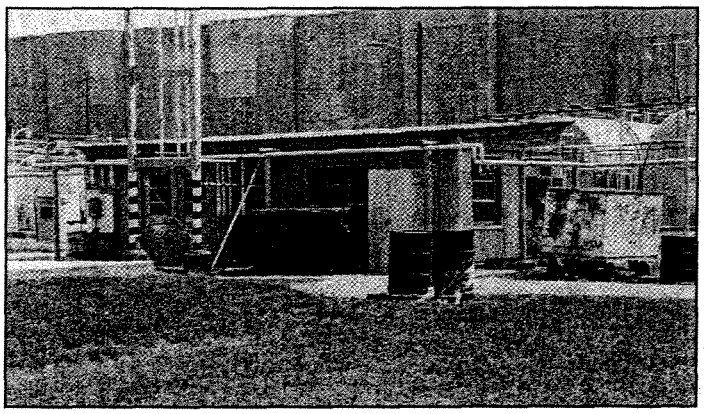

Figure B.38. Building C-541-A, north and west façades.

Cooling Towers and Pump Houses

The cooling towers and pump houses serve to remove the heat produced in the gaseous diffusion process and to pump cooled water back into the process buildings to cool the diffusion machinery. The gaseous diffusion process results in enormous amounts of excess heat when the gas is compressed. This heat is then transferred through underground pipes to the cooling towers. Here the heated water is cooled by airflow, releasing the heat as steam. Water is then recirculated by pumping back into the process buildings where the process heat is removed by an intermediate freon system which then transfers the heat to the water. There are four cooling tower and pump house complexes which support the four main process buildings. These towers include C-631-1-6, which supports Building C-331; C-633-1-6, which supports Building C-333; C-635-1-6, which supports Building C-335, and C-637-1-6, which supports Building C-337. Each complex contains a pump house, cooling tower, blending cooling towers, and other support buildings. Figure B.39 shows the initial construction of cooling tower C-633 in March 1953. The cooling towers were rebuilt during the 1980's and also CUP towers were added as part of the CIP/CUP program during the 1970s to provide additional cooling capacity for CUP loads. Table B.3 lists the cooling towers and pump houses that have been surveyed and are described in more detail.

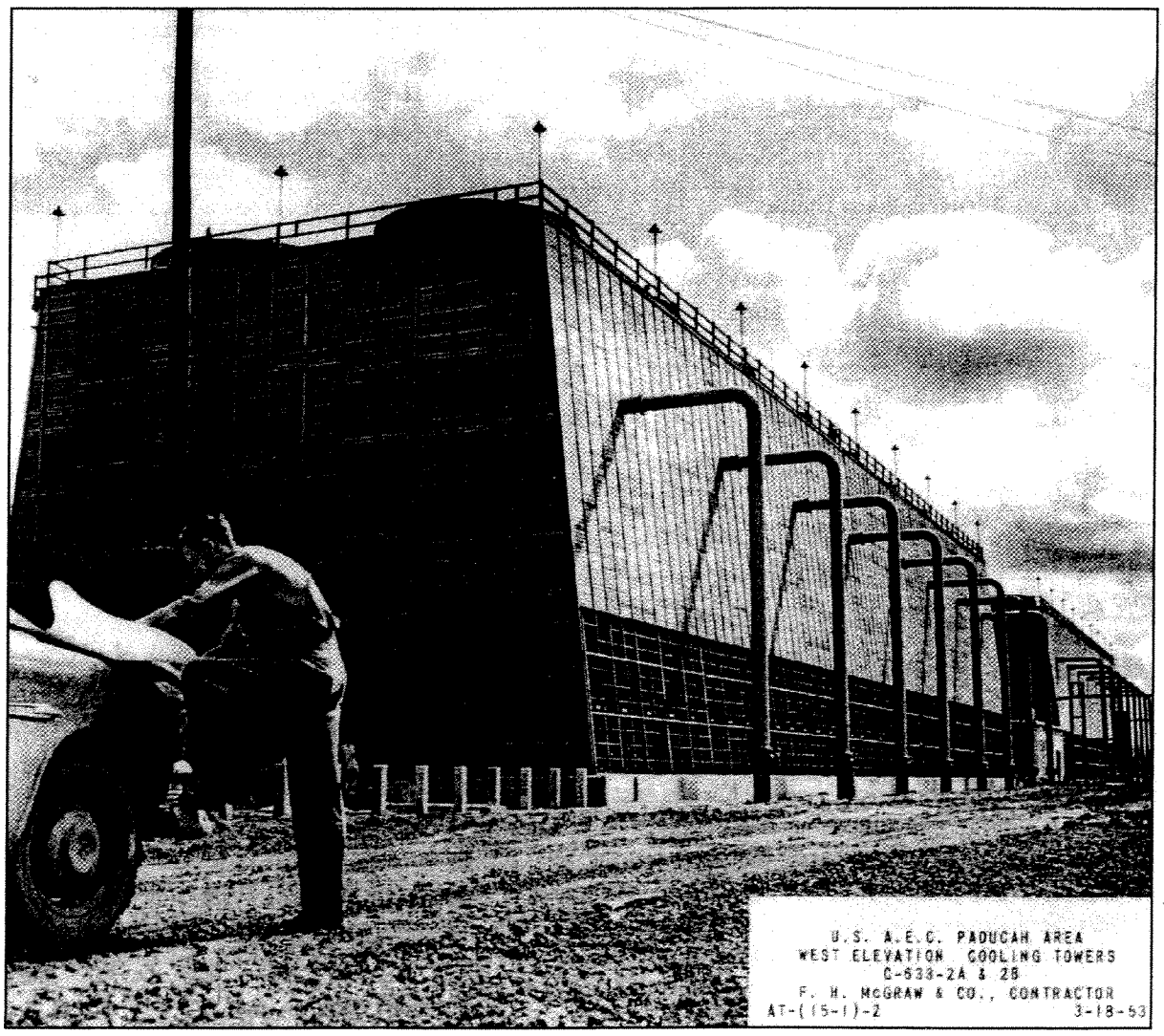

Figure B.39. Construction of cooling tower C-633 in March 1953.

Table B.3. Cooling towers and pump houses

Cooling Towers and Pump Houses	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-631-1	B.40	Pump House	9700	1952	Yes – Contributing
C-631-2	B.41	Cooling Tower	15248	1953	Yes – Contributing
C-631-3	B.42	Firewater Pump House	1196	1959	Yes – Contributing
C-631-4	B.43	Blending Pump House	1540	1982	Yes – Non-Contributing
C-631-5	B.44	Blending Cooling Tower (West)	3024	1953	Yes – Contributing
C-631-6	B.45	Blending Cooling Tower (East)	3024	1953	Yes – Contributing
C-633-1	B.46	Pump House	10245	1953	Yes – Contributing
C-633-2A	B.47	Cooling Tower (South)	16085	1953	Yes – Contributing
C-633-2B	B.48	Cooling Tower (North)	16085	1953	Yes – Contributing
C-633-3	B.49	Blending Pump House	1984	1982	Yes – Non-Contributing
C-633-4	B.50	Blending Cooling Tower (North)	4536	1953	Yes – Contributing
C-633-5	B.51	Blending Cooling Tower (South)	4536	1953	Yes – Contributing
C-633-6	B.52	Sand Filter Building	260	1983	Yes – Non-Contributing
C-635-1	B.53	Pump House and Piping	8505	1954	Yes – Contributing
C-635-2	B.54	Cooling Tower	15248	1954	Yes – Contributing
C-635-3	B.55	Blending Pump House	1984	1982	Yes – Non-Contributing
C-635-4	B.56	Blending Cooling Tower (North)	2520	1954	Yes – Contributing
C-635-5	B.57	Blending Cooling Tower (South)	3024	1954	Yes – Contributing
C-635-6	B.58	Process Waste Heat Pump	2556	1983	Yes – Non-Contributing
C-637-1	B.59	Pump House	10245	1954	Yes – Contributing
C-637-2A	B.60	Cooling Tower (South)	22100	1954	Yes – Contributing
C-637-2B	B.61	Cooling Tower (North)	22011	1954	Yes – Contributing
C-637-3	B.62	Blending Pump House	2048	1982	Yes – Non-Contributing
C-637-4	B.63	Blending Cooling Tower (North)	3528	1954	Yes – Contributing
C-637-5	B.64	Blending Cooling Tower (South)	3528	1954	Yes – Contributing
C-637-6	B.65	Sand Filter Building	260	1982	Yes – Non-Contributing

Building C-631-1 – Pump House (Survey Number MCN-203)

This building is a two-story steel and concrete pump house built in 1952. This facility is the main water-pumping station for process building C-331. It has a poured-concrete foundation, a built-up flat roof, and an exterior of transite panels. On the main (east) façade is a garage bay with an original steel overhead-track door. This façade also has a pedestrian entrance with an original two-light steel and glass door. On the first floor of this façade are paired, three-light windows. The lower window panels are fixed, while the upper two panels are of awning design. On the second story of the east façade is a row of seven three-light steel awning windows. On the south façade of this building is an original one-story concrete wing. This wing has a garage bay with an overhead-track door. On the south façade of this wing is attached electrical equipment. The west façade lacks fenestration.

The south and north façades of the main section have rows of three-light steel awning windows on both floors. The west façade of the main section has an entrance with an original two-light steel and glass door. On the second floor is a row of seven three-light steel awning windows. Attached to the north façade is an original one-story concrete wing. This wing has original double steel doors on the east

façade. The north façade of this wing has two pedestrian doors of glass and steel design. This façade also has two loading-dock bays: one with an original two-light steel and glass door, and the other with an overhead steel track door. On the west façade of the wing are ca. 1990 double steel and glass doors. This wing supplies water treatment chemicals to the recirculating water.

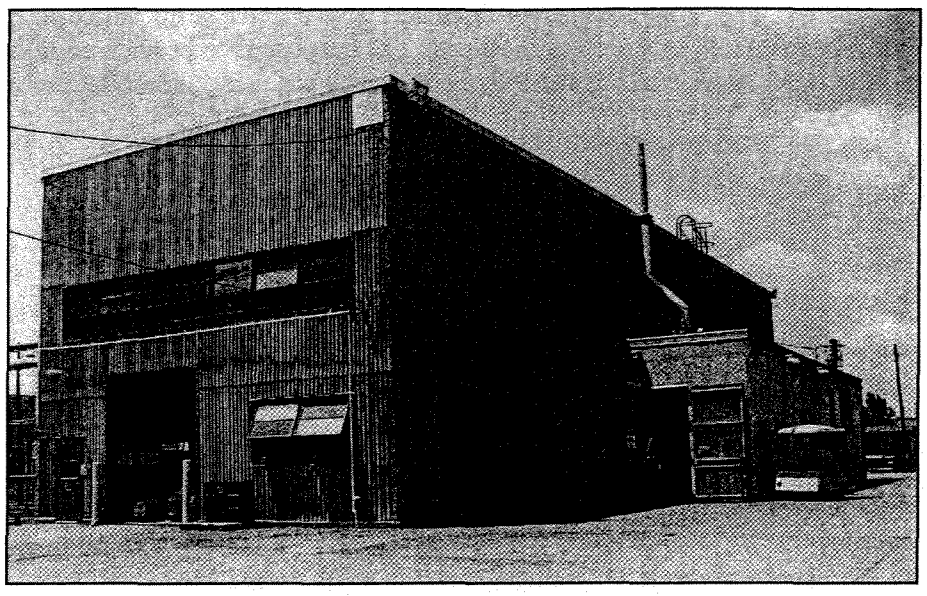

Figure B.40. Building C-631-1, north and east façades.

Building C-631-2 – Cooling Tower (Survey Number MCN-204)

This is a cooling tower of steel and wood construction built in 1953. It has a poured-concrete foundation, a built-up flat roof, and an exterior of fiberglass panels. On the south façade is an open wall of rectangular wood panels. The structure contains 12 cooling towers at the roof and six steel water pipes that extend from the south façade into the water system below grade. Extending the circumference of the structure at the roofline is a wood railing. Adjacent to the south façade is a poured-concrete pump house with a metal railing at the roofline. The north wall of the building is open and has rectangular wood panels. Attached to this façade is an exterior-wall wood staircase. To the north of the building is a rectangular plan concrete-block mechanical building with a built-up flat roof, and a ca. 1980 vertical-board door. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

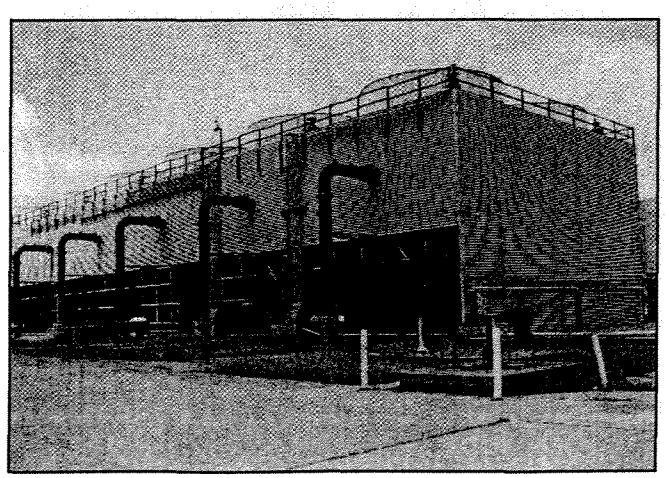

Figure B.41. Building C-631-2, north and east façades.

Building C-631-3 – Fire Water Pump House (Survey Number MCN-205)

Building C-631-3 is an associated pump house. This pump house was built in 1959, is of concrete-block construction, and is approximately three feet above grade. This structure has a flat roof and houses mechanical equipment for the adjacent tower. The purpose is to provide additional fire water to an above ground fire water supply tank in case of an emergency requiring additional fire water.

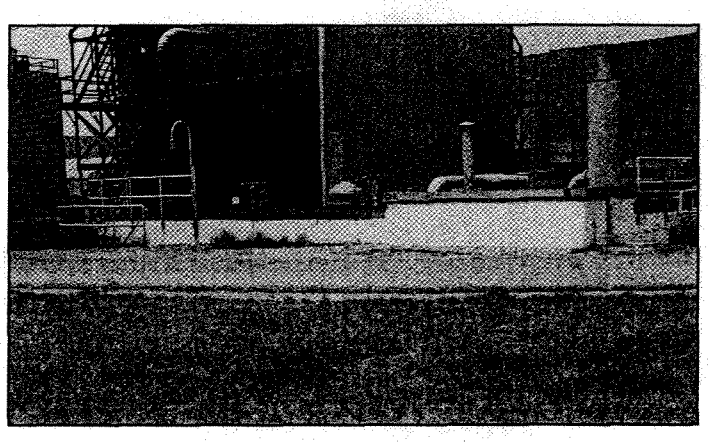

Figure B.42. Building C-631-3, south façade.

Building C-631-4 – Blending Pump House (Survey Number MCN-206)

This is a one-story steel building built in 1982. It has a poured-concrete foundation, a built-up shed roof, and an exterior of fiberglass panels. On the main (south) façade is an entrance with a ca. 1980 vertical-board wood door. On the west façade are two steel-louvered vent panels. On the north façade is an entrance with a ca. 1980 vertical-board wood door. There is no fenestration on the east façade. This façade has two large water pipes that connect with Building C-631-5.

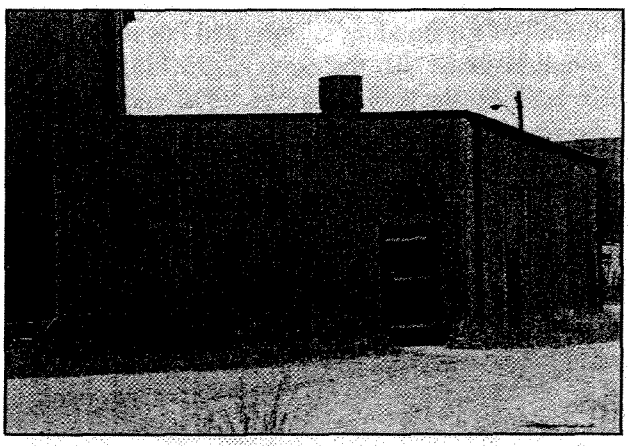

Figure B.43. Building C-631-4, north and west façades.

Building C-631-5 – Blending Cooling Tower – West (Survey Number MCN-207)

This is a two-story steel and wood cooling tower. The structure has a poured-concrete foundation, a built-up flat roof, and exterior walls of transite panels. On the south façade is an open wall of rectangular panels. The structure supports two steel towers that are round and have recessed rectangular panels. On the south façade is an exterior-wall wood staircase, and at the circumference of the roof is a wood railing. On the south façade are two large water pipes that connect below grade to the water system. On the north façade is an exterior-wall wood stair. To the north of the building is a small, rectangular-plan, mechanical building of concrete-block construction. This building has a flat roof and an entrance with a ca. 1980 vertical-board wood door. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

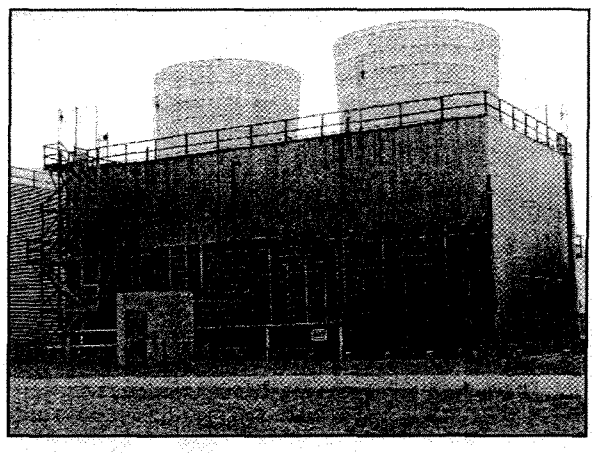

Figure B.44. Building C-631-5, north and west façades.

Building C-631-6 – Blending Cooling Tower – East (Survey Number MCN-208)

This is a one-story structure built in 1953 with a poured-concrete foundation and exterior walls of transite panels. The building is of steel construction with an exterior wall on the south façade of open-paneled wood construction. On the south façade is an exterior-wall wood staircase that connects with the roof the building. At the roofline is a wood railing. At the top the building is a round cooling tower of steel that has a surface of rectangular recessed panels. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

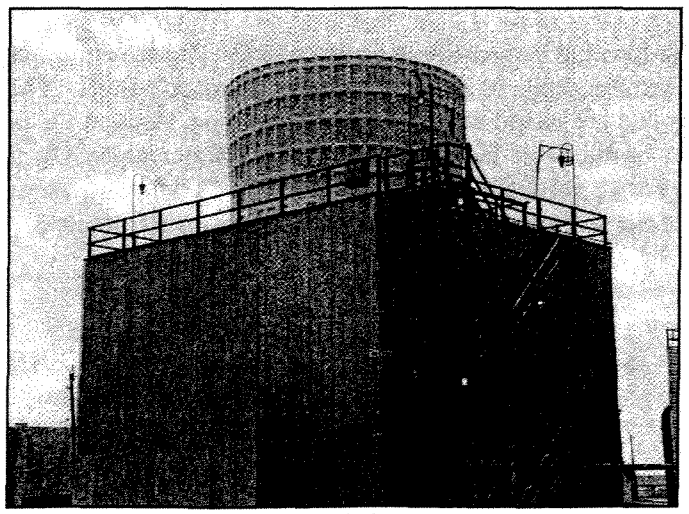

Figure B.45. Building C-631-6, south and west façades.

Building C-633-1 – Pump House (Survey Number MCN-209)

This is a two-story pump house of reinforced concrete and steel built in 1953. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of smooth concrete and transite panels. On the main (west) façade is a one-story concrete wing that contains a garage-bay entrance with an overhead steel track door. This façade also contains two entrances with solid-steel double doors and a central loading-dock door of two-panel steel design. On the north façade of this wing is a solid-steel door. On the south façade of this wing is a three-light steel window. The two-story section has a wall of concrete approximately six to seven feet in height, with transite panels above. On the west façade in the second story is a row of 11 three-light steel windows. The lower window panels are fixed, while the upper two panels are of awning design. On the north façade, the building has a row of 14 windows on the first floor and 16 windows on the second floor. At the northeast corner of the building on the first floor is a garage bay with an overhead steel door. On the east façade is a one-story concrete wing. This wing has two single-light steel and glass doors on its west façade. The south façade of the building has 16 windows on both floors. This wing contains the equipment for and supplies the continuous chemical treatment of the recirculating water.

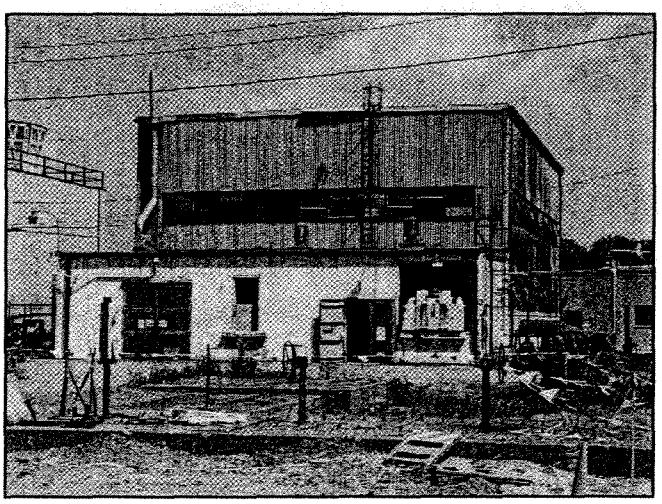

Figure B.46. Building C-633-1, south and west façades.

C-633-2A – Cooling Tower (South) (Survey Number MCN-210)

This structure is the Cooling Tower South built in 1953. The structure has a rectangular concrete foundation and basin, and exterior walls of fiberglass and open-wood panels. The steel structural system supports 16 cooling towers that are round and of steel construction. Around the perimeter of the roofline is a wood railing. Attached on the west façade are eight large water pipes. On the west façade are two concrete-block pump houses with vertical-board wood doors. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

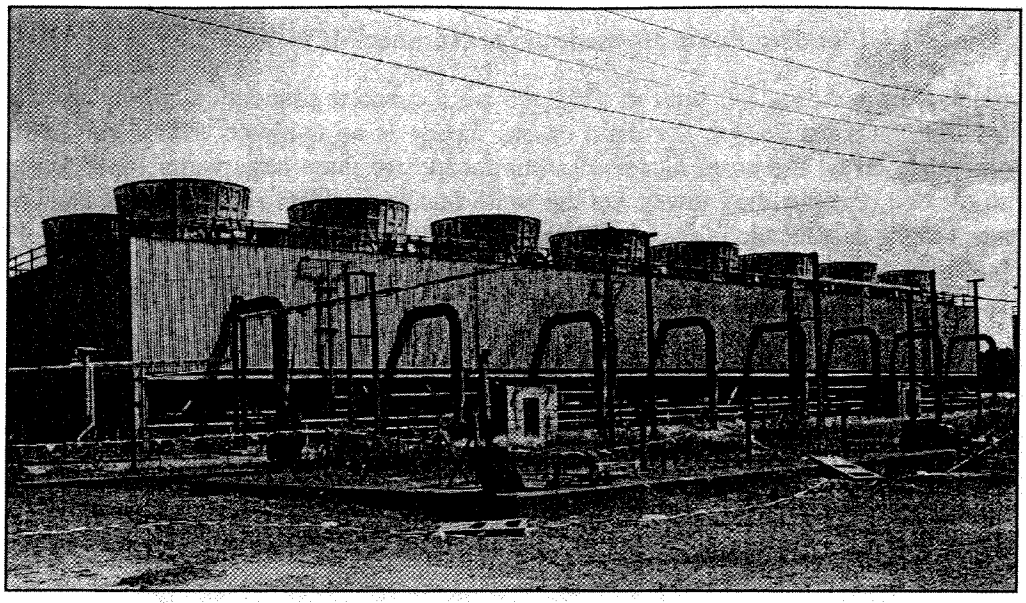

Figure B.47. Building C-633-2A, north and west façades.

C-633-2B – Cooling Tower (North) (Survey Number MCN-211)

This structure is the Cooling Tower North built in 1953. The structure has a rectangular concrete foundation and basin and exterior walls of fiberglass and open-wood panels. The steel structural system supports 16 cooling towers that are round and of plastic and steel construction. Around the perimeter of the roofline is a wood railing. Attached on the west façade are eight large water pipes. On the west façade are two concrete-block fire sprinker system valve houses. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

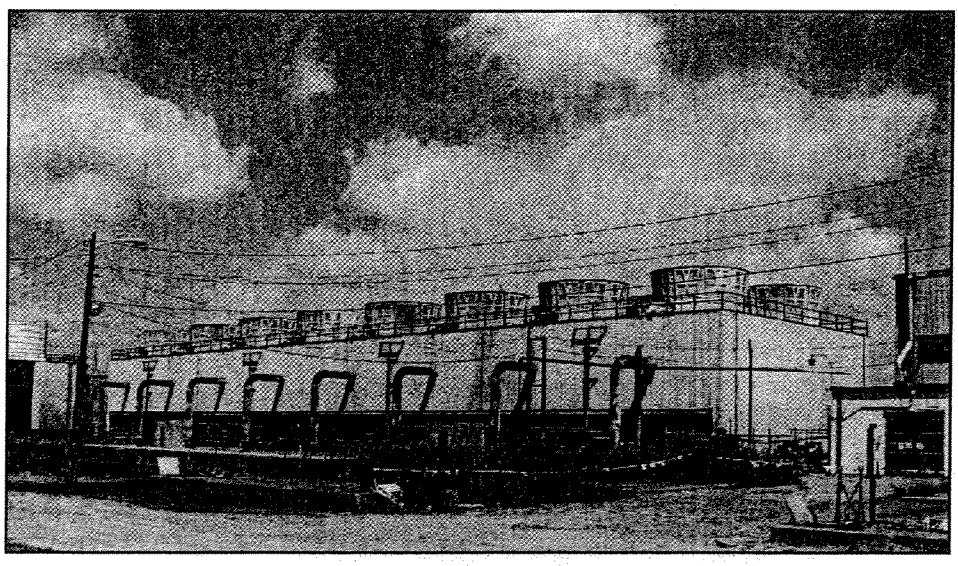

Figure B.48. Building C-633-2B, south and west façades.

Building C-633-3 – Blending Pump House (Survey Number MCN-212)

This one-story building was built in 1982 and has a concrete foundation, a built-up shed roof, and an exterior of fiberglass panels. On the main (west) façade is an entrance with a vertical-board door. There is no fenestration on the north façade. On this façade are three large water pipes that connect the building with the adjacent blending tower. On the south façade are three rectangular openings with steel-louvered vents. On the east façade is a vertical-board door.

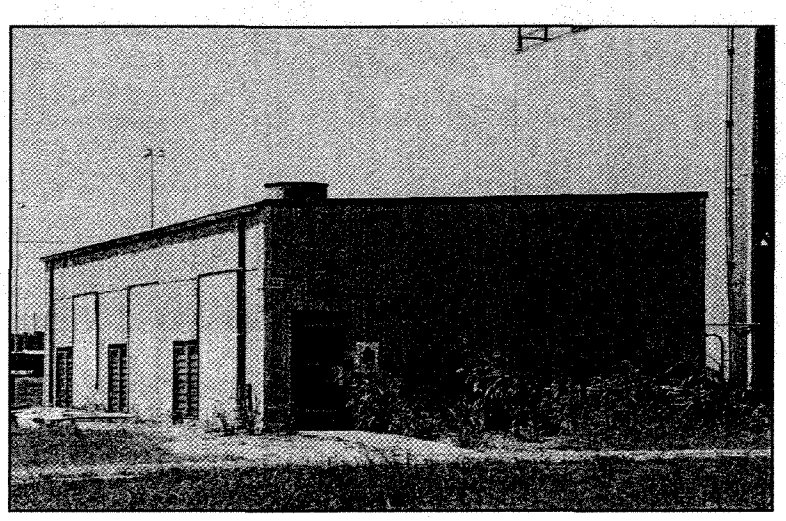

Figure B.49. Building C-633-3, south and east façades.

Building C-633-4 – Blending Cooling Tower (North) (Survey Number MCN-213)

This structure is the Blending Cooling Tower (North) built in 1953. This cooling tower is composed of a support system of wood frame and steel. The steel support system is beneath the three cooling towers, and the exterior walls are of open-wood panels and transite panels. The cooling towers are circular in design and of steel construction. On the west façade is a small concrete-block fire water valve house. This tower rests with a rectangular poured-concrete basin to contain water run-off. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

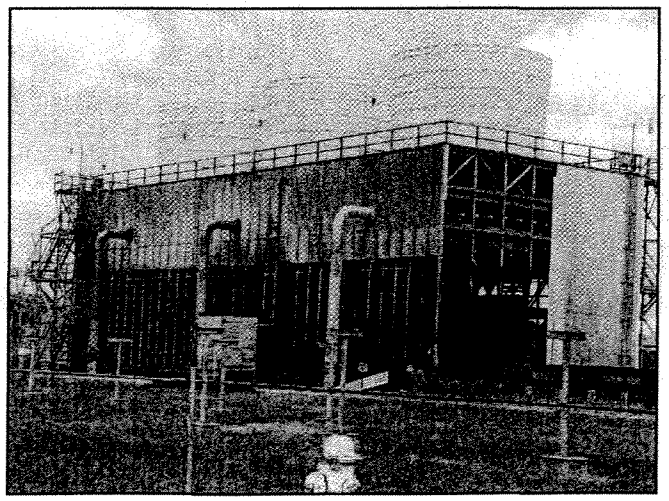

Figure B.50. Building C-633-4, south and west façades.

Building C-633-5 – Blending Cooling Tower (South) (Survey Number MCN-214)

This structure is the Blending Cooling Tower (South), which was built in 1953. This cooling tower is composed of a support system of wood frame and steel. The steel support system is beneath the three cooling towers and the exterior walls are of open-wood panels, transite panels, and fiberglass. The cooling towers are circular in design and of steel construction. On the west façade is a small concrete-fire water sprinkler system house with a wood and steel door. This tower rests with a rectangular poured-concrete basin to contain water run-off. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

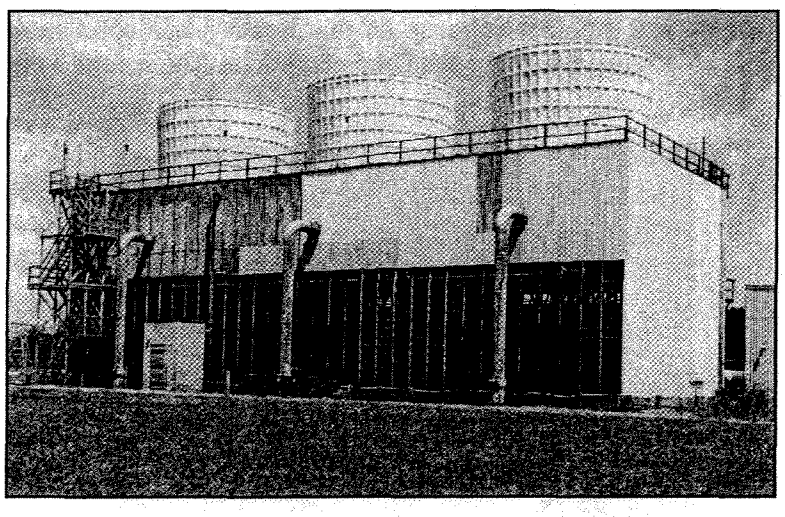

Figure B.51. Building C-633-5, south and west façades.

Building C-633-6 – Sand Filter Building (Survey Number MCN-215)

This is a one-story, prefabricated metal building built in 1983 and used as a sand filter building. It has a poured-concrete foundation and roof and walls of steel panels. On the main (north) façade is a garage bay with an overhead-track door. On the east façade is a pedestrian door of single-light steel and glass design. The building has no other fenestration.

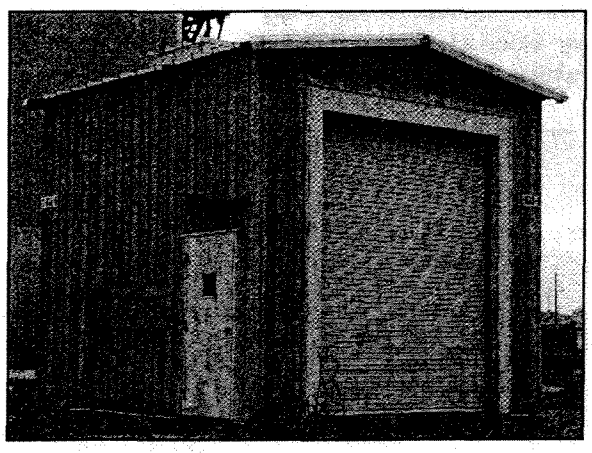

Figure B.52. Building C-633-6, north and east façades.

Building C-635-1 – Pump House and Piping (Survey Number MCN-216)

This is a two-story steel-frame building constructed in 1954 with a poured-concrete foundation, a built-up flat roof, and exterior walls of transite. On the main north façade is a garage bay with a steel overhead-track door. This façade also has a ca. 1990 single-light steel and glass pedestrian door. On the first floor of this façade are paired three-light steel-awning windows. On the second floor is a row of seven three-light steel awning windows. Attached to the east façade is a one-story concrete wing that has a garage-bay entrance on the north façade. This entrance has an overhead-track steel door. Attached to the east façade of this wing is a concrete-block wall containing attached electrical transformers. On the east and west façades of the main section of the building are original nine-light steel windows with two-light hinged panels. On the west façade of the building is a one-story concrete-block wing that has paired, solid-steel doors on the north façade. On the west façade of this wing are two pedestrian entrances with single-light glass and steel doors. Another entrance on this façade has a solid-steel door. On the south façade is an entrance with an original two-light steel and glass door. The second story has a row of seven three-light steel windows.

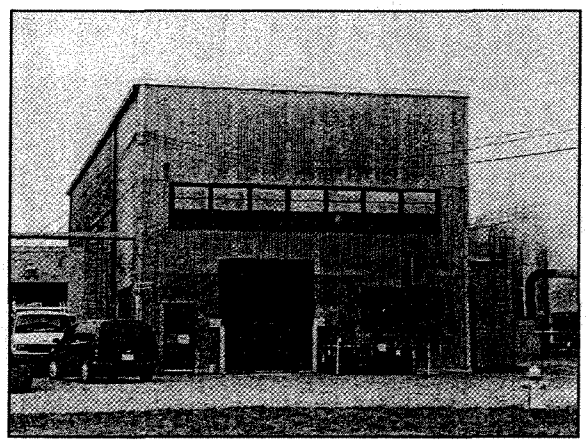

Figure B.53. Building C-635-1, north and east façades.

Building C-635-2 – Cooling Tower (Survey Number MCN-217)

This is a two-story structure of steel construction that supports 16 steel cooling towers. Built in 1954, the building has a poured-concrete foundation, a built-up flat roof, and exterior walls of fiberglass panels. On the lower sections of the east and west façades are open rectangular wood panels. On the east façade are eight large water pipes which connect into the below grade pumping systems. To the east of the structure are two concrete-block buildings with built-up flat roofs and solid-steel doors. Attached to the west façade are two exterior wood staircases. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

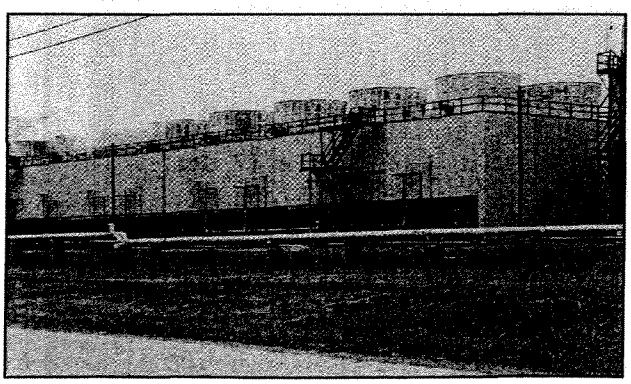

Figure B.54. Building C-635-2, south and west façades.

Building C-635-3 – Blending Pump House (Survey Number MCN-218)

Building C-635-3 is a one-story steel-frame pump house built in 1982. The building has a built-up shed roof, an exterior of fiberglass panels, and a poured-concrete foundation. On the main (east) façade is a ca. 1980 vertical-board door. There is no fenestration on the south façade except for two large water pipes that connect with the adjacent cooling tower. On the north façade are three louvered vents. On the west façade is an entrance with a ca. 1980 vertical-board door.

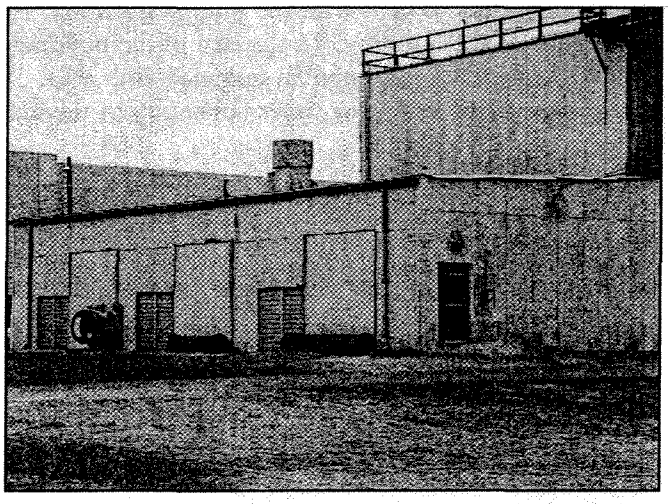

Figure B.55. Building C-635-3, north and west façades.

Building C-635-4 – Blending Cooling Tower–North (Survey Number MCN-219)

This is a two-story structure of steel construction that supports two steel cooling towers. Built in 1954, the structure has a poured-concrete foundation, a built-up flat roof, and exterior walls of fiberglass and transite panels. Both the east and west façades have open walls below the transite panels of rectangular wood panels. On both the east and west façades are exterior-wall, wood staircases. On the east façade are two large pipes which connect the towers with the pumping station. The towers are steel and have recessed rectangular panels. At the roofline is a wood railing that extends the circumference of the building. To the east of the building is a one-story concrete-block mechanical building with a built-up flat roof and an entrance with a ca. 1980 vertical-board door. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

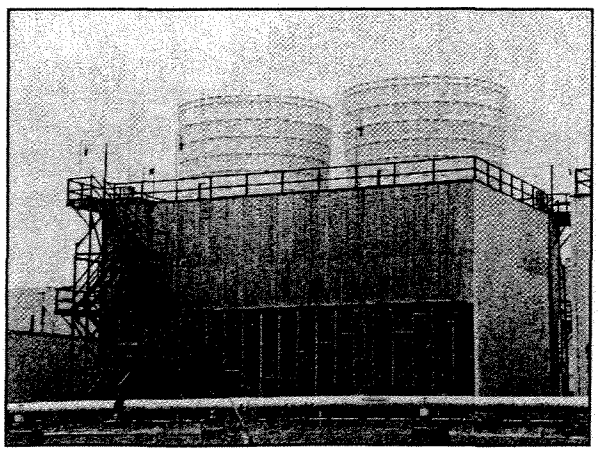

Figure B.56. Building C-635-4, south and west façades.

Building C-635-5 – Blending Cooling Tower–South (Survey Number MCN-220)

This is a two-story structure of steel construction that supports two steel cooling towers. Built in 1954, the structure has a poured-concrete foundation, a built-up flat roof, and exterior walls of fiberglass and transite panels. Both the east and west façades have open walls below the transite panels of rectangular wood panels. On both the east and west façades are exterior-wall wood staircases. On the east façade are two large pipes that connect the towers with the pumping station. At the roofline is a wood railing that extends the circumference of the building. To the east of the building is a one-story concrete-block mechanical building with a built-up flat roof and an entrance with a ca. 1980 vertical-board door. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

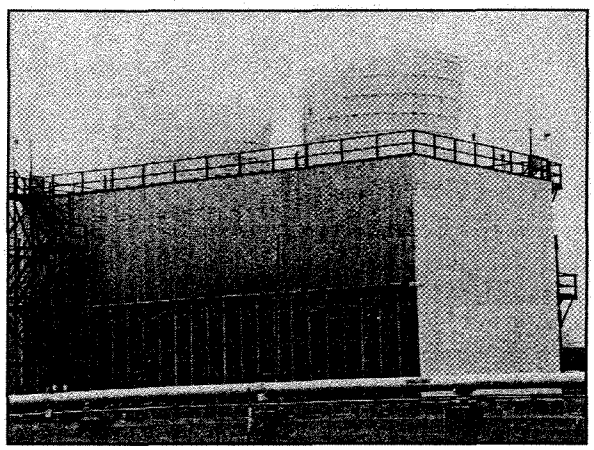

Figure B.57. Building C-635-5, south and west façades.

Building C-635-6 – Process Waste Heat Utilization Pump House (Survey Number MCN-221)

This is a one-story, prefabricated steel building built in 1983 used as a heat utilization pump house. It has a poured-concrete foundation, a built-up flat roof, and an exterior of fiberglass panels. On the north and south façades are ca. 1990 steel double doors. The building lacks any additional fenestration. At the roofline are two circular metal vents.

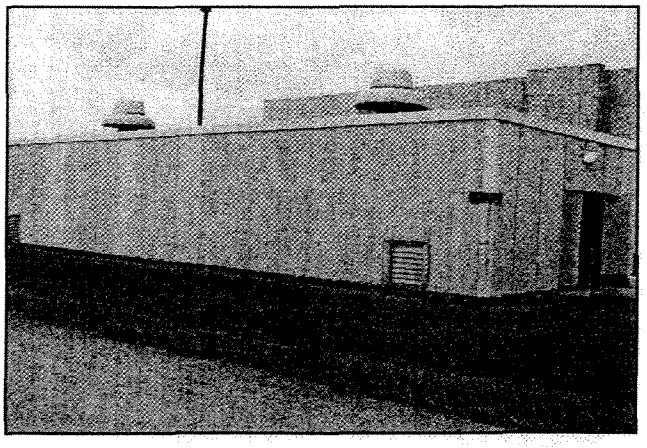

Figure B.58. Building C-635-6, south and west façades.

Building C-637-1 – Pump House (Survey Number MCN-222)

This is a two-story steel and concrete pump house built in 1954. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of both concrete and transite panels. On the main (west) façade is a one-story concrete-block wing. This wing has a garage bay with paired solid-steel doors. A raised loading dock has original, paired two-light steel and glass doors. The pedestrian entrance on this façade has a ca. 1990 solid-steel door. This façade also has a recessed loading-dock bay with a single-light steel and glass door. The main façade of the two-story section has a continuous row of 11 three-light steel and glass awning windows. On the south façade of the two-story section are rows of 17 three-light steel and glass windows on both floors. Attached at the rear is a one-story concrete wing with two steel and glass doors on the west façade. On the north façade of the two-story section is a garage-bay entrance with an overhead steel track door. This façade has 15 three-light windows on the first floor and 17 on the second floor. The east façade has a concrete wall containing electrical transformers.

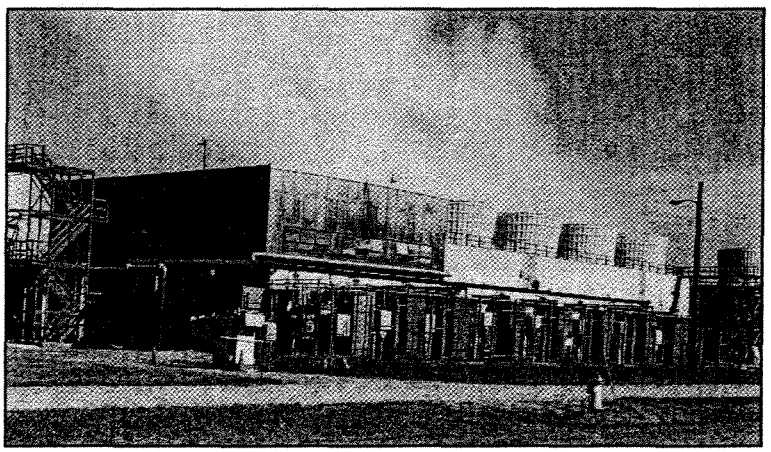

Figure B.59. Building C-637-1, south and east façades.

Building C-637-2A Cooling Tower–South (Survey Number MCN-223)

This structure was built in 1954 and is of steel-frame construction and supports 12 steel cooling towers. It has a poured-concrete foundation, a built-up flat roof and exterior siding of fiberglass panels. The east and west façades have lower sections of rectangular open-wood panels. On the east façade are two attached exterior-wall wood staircases. On the west façade are six, large pipes which connect the towers with the pumping system. To the west of the structure are two concrete-block mechanical buildings with built-up flat roofs and ca. 1980 vertical-board wood doors. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

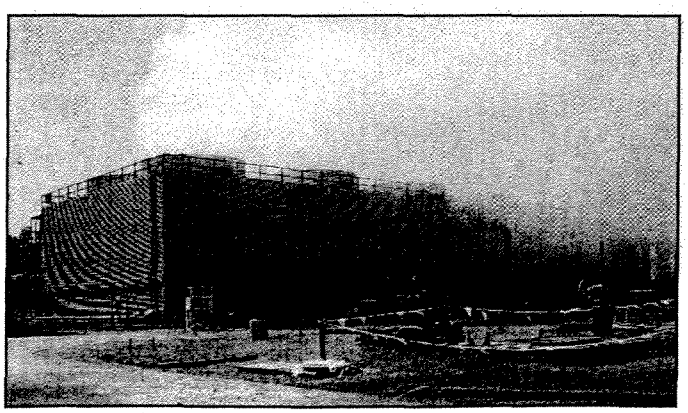

Figure B.60. Building C-637-2A, north and west façades.

Building C-637-2B Cooling Tower – North (Survey Number MCN-224)

This structure was built in 1954 and is of steel-frame construction. It supports 12 steel cooling towers. It has a poured-concrete foundation, a built-up flat roof, and exterior siding of fiberglass panels. The east and west façades have lower sections of rectangular open-wood panels. On the east façade are two attached exterior-wall wood staircases. On the west façade are six large pipes that connect the towers with the pumping system. To the west of the structure are two concrete-block mechanical buildings with built-up flat roofs and ca. 1980 vertical-board wood doors. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

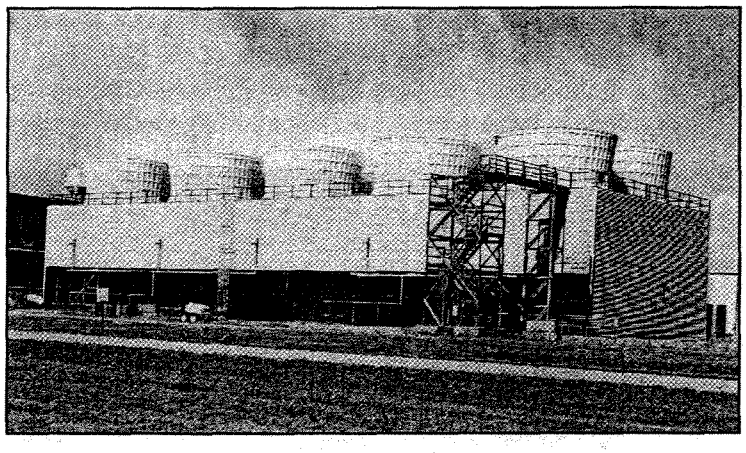

Figure B.61. Building C-637-2B, north and east façades.

Building C-637-3 – Blending Pump House (Survey Number MCN-225)

Building C-637-3 is a one-story steel pump house built in 1982 with a built-up shed roof, exterior walls of transite panels, and a poured-concrete foundation. On the main (west) façade is a vertical-board wood door. On the north façade are three, steel-louvered vents. On the east façade is a vertical-board wood door. There is no fenestration on the south façade except for two large pipes.

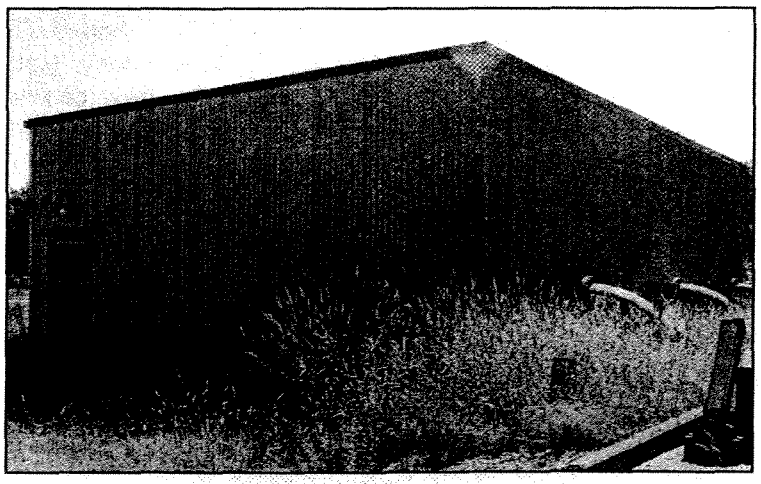

Figure B.62. Building C-637-3, south and west façades.

Building C-637-4 – Blending Cooling Tower-North (Survey Number MCN-226)

Built in 1954, this is a two-story structure of steel frame that supports two steel cooling towers. It has a poured-concrete foundation, a built-up flat roof and exterior panels of transite and fiberglass. On the east and west façades are lower sections of open rectangular panels. Attached to both the east and west façades are exterior-wall wood staircases. On the west façade are two large pipes that connect the towers with the pumping system. The towers are of steel construction and have recessed rectangular panels. To the west of the structure is a rectangular-plan concrete-block mechanical building with a built-up flat roof and an entrance with a ca. 1980 vertical-board wood door. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

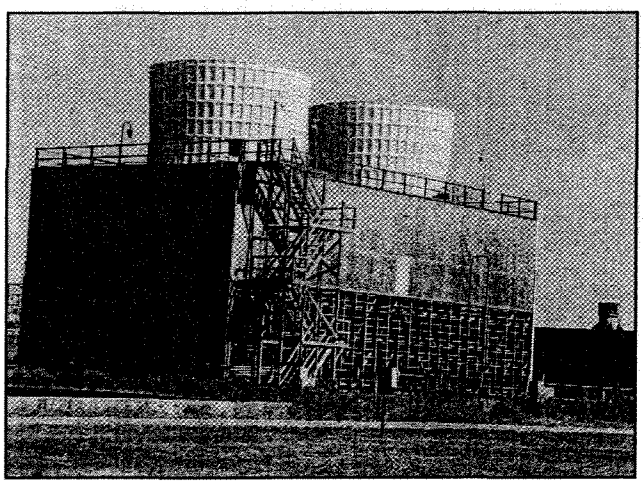

Figure B.63. Building C-637-4, south and east façades.

Building C-637-5 – Blending Cooling Tower South (Survey Number MCN-227)

This is a two-story structure built in 1954 of steel frame that supports two steel cooling towers. It has a poured-concrete foundation, a built-up flat roof, and exterior panels of transite and fiberglass. On the east and west façades are lower sections of open rectangular panels. Attached to both the east and west façades are exterior-wall wood staircases. On the west façade are two large pipes that connect the towers with the pumping system. The towers are of steel construction and have recessed rectangular panels. To the west of the structure is a rectangular-plan concrete-block mechanical building with a built-up flat roof and an entrance with a ca. 1980 vertical-board wood door. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

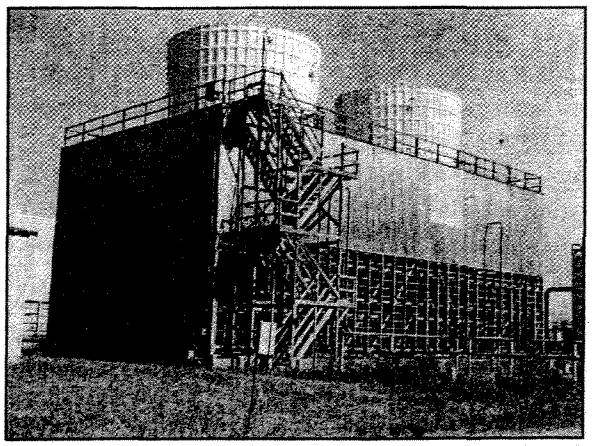

Figure B.64. Building C-637-5, south and east façades.

Building C-637-6 – Sand Filter Building (Survey Number MCN-228)

This is a one-story, prefabricated steel building built in 1982. It has a gable roof of crimped steel panels, exterior walls of steel panels, and a poured-concrete foundation. On the south façade is a garage-bay entrance with an overhead steel track door. On the west façade is a pedestrian entrance with a solid steel door. There is no other fenestration.

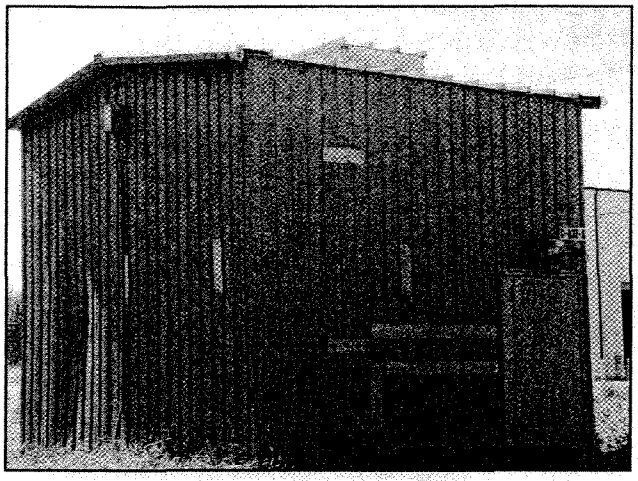

Figure B.65. Building C-637-6, north and west façades.

Administrative Buildings

Administrative buildings are those that contain offices and the administrative functions of the facility. When PGDP was built in the 1950s, the main administrative building was Building C-100, which still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212. Table B.4 lists the administrative buildings that have been surveyed and are described in more detail.

Table B.4. Administrative buildings

Administrative Buildings	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-100	B.66	Administration Building	67516	1953	Yes – Contributing
C-212	B.67	Office Building	3471	1952	Yes – Contributing
C-302	B.68	Operations Division Data Center	7366	1981	Yes – Non-Contributing
C-303	B.69	Supervisory Control and Data Acquisition Systems Building	2109	1984	Yes – Non-Contributing
C-304	B.70	Training and Cascade Office Bldg.	8000	1991	No
C-320	B.71	Communication Building	1116	1952	Yes – Contributing
C-709	B.73	Plant Laboratory Annex	13500	1998	Yes – Non-Contributing
C-710	B.72	Technical Service Building	84333	1953	Yes – Contributing
C-743	B.74	Office Building	9973	1971	No

Building C-100 – Office Building (Survey Number MCN-95)

C-100 is a W-shaped office building built in 1953. The main section is two stories and has two one-story wings that form a U shape. A two-story wing also projects at the rear of the building between these two wings to form a W shape. This wing contains a reinforced concrete vault. The building has a flat roof of gravel and tar, a poured-concrete foundation, and an exterior of smooth concrete. The concrete walls are scored in rectangular patterns. Windows throughout the building are fixed, single-light steel and glass design. Some windows are grouped in sections of four each. Entrances have single-light glass and steel doors and solid-steel doors. The main (south) façade has an entrance with a single-light glass and wood door. Turnstiles have been added at this entrance. Windows on this façade are of fixed, single-light design grouped in sections of three or four on both façades.

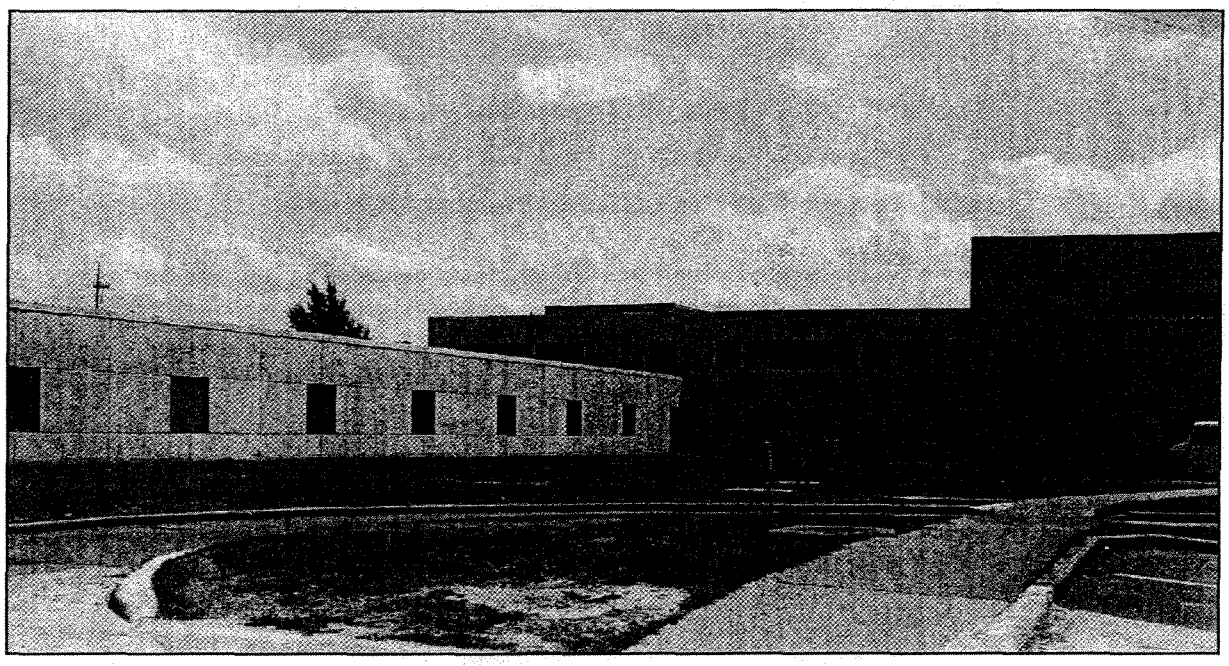

Figure B.66. Building C-100, north and west façades.

Building C-212 – Office (Survey Number MCN-101)

This is a one-story concrete-block building constructed in 1953, with a flat roof of gravel and tar, a poured-concrete foundation, and a concrete-block exterior of. The east façade has an entrance with a steel and glass, single-light door. Windows are fixed, and of a single-light steel design. On the main (north) façade is an entrance with a single-light steel and glass door and fixed, single-light windows. On the east façade is an entrance with a steel and glass door. The east wing of C-212 has concrete walls and a bank of single-light fixed windows below the roofline. The south façade lacks fenestration except for the east wing, which has an entrance with a steel and glass door.

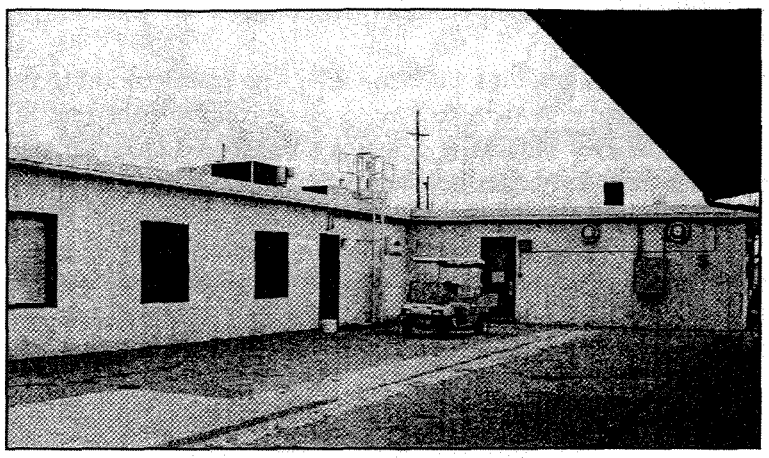

Figure B.67. Building C-212, north and east façades.

Building C-302 – Operations Division Data Center (Survey Number MCN-108)

This is a one-story building that was built in 1981 as a data center. The building has a concrete foundation, a built-up flat roof, and an exterior of synthetic stucco. On the main (south) façade is an entrance with a steel and glass door. Windows are single-light and double-light of fixed anodized aluminum. On the east façade are two entrances with single-light steel and glass doors. At the rear façade is a single-light steel and glass door. There is no fenestration on the west façade.

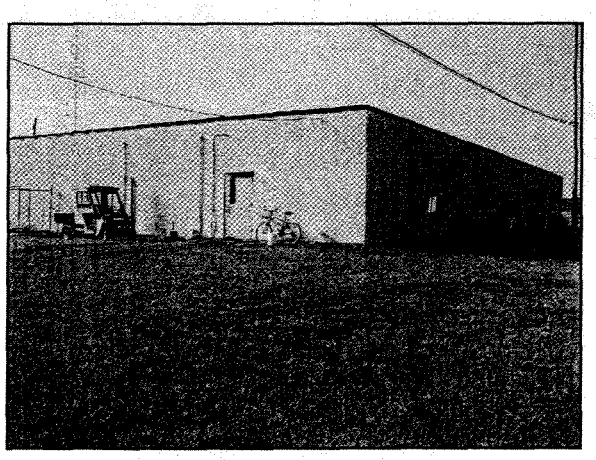

Figure B.68. Building 302, north and west façades.

Building C-303 – Supervisory Control and Data Building (Survey Number MCN-109)

C-303 is a one-story, rectangular-plan building of concrete construction built in 1984. The building has a concrete foundation, a built-up flat roof and an exterior of textured concrete. On the main (south) façade is an entrance with a solid-steel door. There is no other fenestration on this façade except for louvered vents. The east façade has an entrance with a solid-steel door and no other fenestration. The north façade has an entrance with double doors of solid-steel design. On the west façade is an entrance with a steel door with a louvered vent.

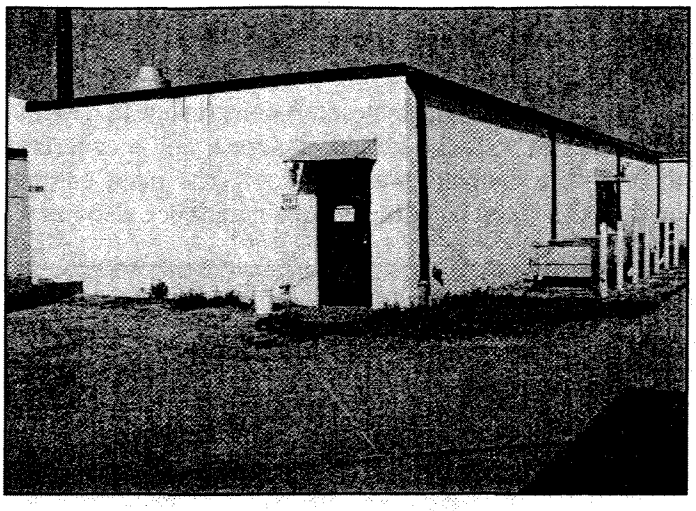

Figure B.69. Building 303, north and east façades.

Building C-304 – Training and Cascade Office Building (Survey Number MCN-110)

Building C-304 is a one-story, brick veneer building built in 1991. The building has a poured-concrete foundation, a built-up flat roof, and an exterior of stretcher-bond brick. On the main (north) façade is an entrance with double doors of glass and aluminum. Windows are fixed, single-light anodized aluminum with brick sills. At the roofline is a flat parapet wall with metal coping. On the west façade is an entrance with a single-light aluminum and glass door. The exterior walls also display metal downspouts.

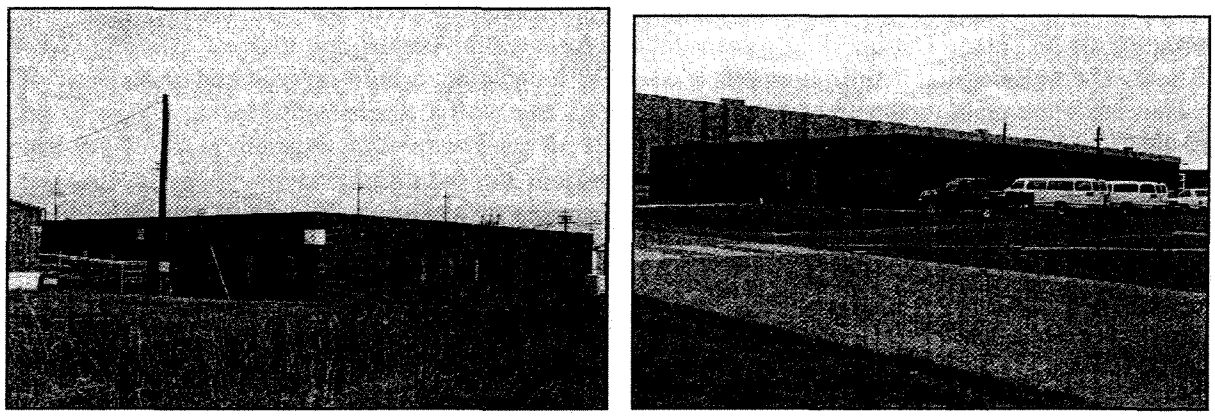

Figure B.70. Building C-304, south and east façades and north and west façades.

Building C-320 – Communication Building (Survey Number MCN-118)

Building C-320 is a one-story concrete building constructed in 1952 in a rectangular plan. The building has a built-up roof, exterior walls of smooth concrete, and a concrete foundation. On the main (south) façade is a vestibule with a concrete wall and roof. The main entrance has a solid-steel door. There is no fenestration on the other three façades. The main entrance also has a steel security door.

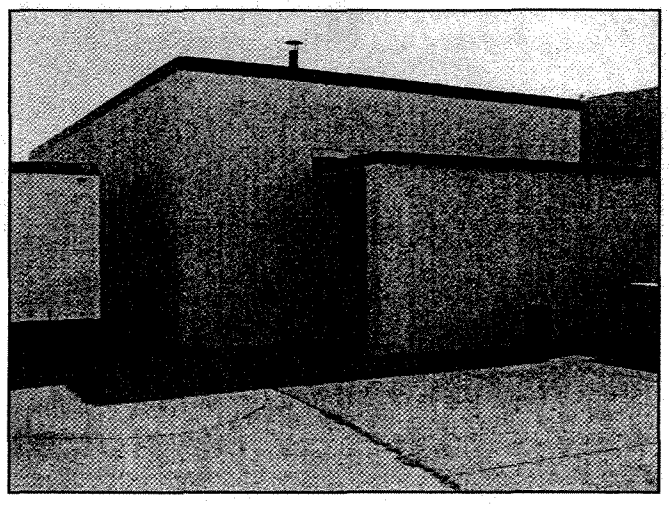

Figure B.71. Building C-320, south and west façades.

Building C-710 – Technical Service Building (Survey Number MCN-230)

The Technical Service Building is a one-story, reinforced concrete building built in 1953 and constructed in an "L" plan. The building's main façade faces Ohio Avenue and the rear ell wing faces Tenth Street. The building has a full basement, a concrete foundation, a built-up roof and an exterior of smooth concrete. The main (south) façade has an entrance bay with a single-light steel and glass door. Flanking the door is a single-light steel sidelight. There are 16 window bays on the main façade. Each bay contains a single-light fixed-steel and glass window on both the basement and first-floor levels. The exterior walls are undecorated except for rectangular scoring of the concrete above, below, and between the windows. At the roofline is a flat parapet wall with metal coping.

Above the main entrance is a large, fixed, six-light steel and glass window panel. Adjacent to the main entrance is a projecting wing. On the east façade of this wing is a single-light steel and glass door. On the west façade of this bay is an entrance with original double doors of single-light steel and glass design. Above these doors is a four-light steel and glass, fixed window. On the west façade are 20 window bays on the first story and 16 window bays in the basement level. Each window is of single-light fixed, steel and glass design. At the northwest corner of the building on the west façade is an entrance with a ca. 1990 single-light steel and glass door. Adjacent to the door is a single-light sidelight. Above the entrance is a steel awning and a six-light fixed-steel and glass window. On the north façade of the rear wall is a ca. 1996 one-story wing with five windows of fixed, single-light aluminum design. This wing connects with an enclosed hall that, in turn, connects with Building C-709, the Plant Laboratory Annex.

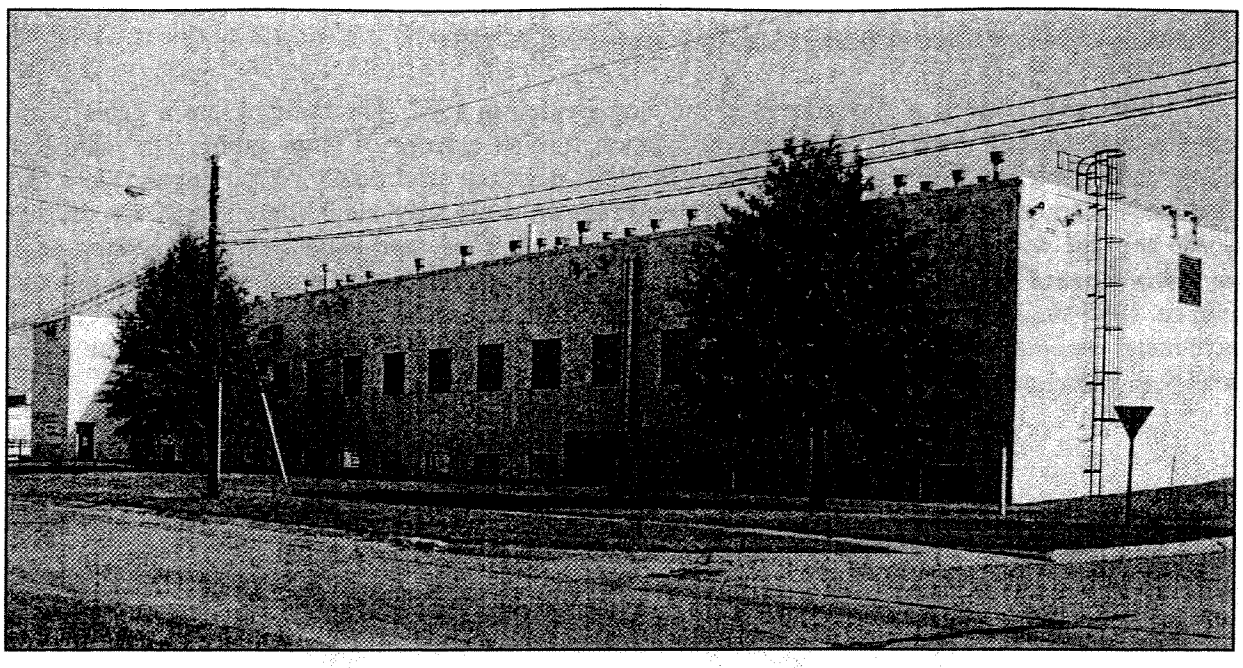

Figure B.72. Building C-710, south and east façades.

Building C-709 – Plant Laboratory Annex (Survey Number MCN-229)

On the north façade is an entrance at the northeast corner of the building with a ca. 1990 steel and glass door. Adjacent to the door is a single-light steel and glass sidelight. Above the door is a four-light steel and glass window. There are ten window bays on the first floor of the building, which are the same design as the rest of the building. On the east façade of the rear wing is a recessed, four-bay, loading dock. Leading to this loading dock are four entrances with steel and glass and solid-steel doors.

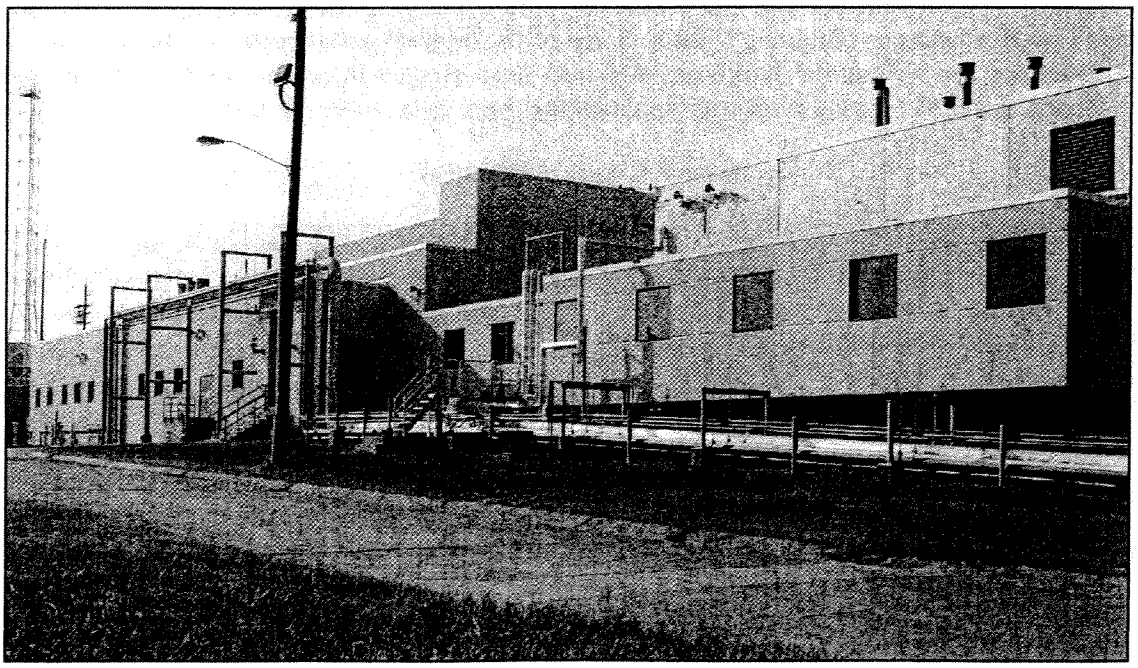

Figure B.73. Building C-709, north and west façades.

Building C-743 – Office Building (Survey Number MCN-253)

Building C-743 is a one-story steel building erected in 1971. The building has a gable roof of rolled asphalt roofing material, a concrete foundation, and an exterior of vinyl siding. The main (east) façade has an entrance with ca. 1990 paired-style light glass and steel doors. At the entrance is a metal shed-roof canopy supported by steel posts. Windows are ca. 1990 fixed single-light design. On the south façade are nine window bays. On the west façade is a window bay and entrance in a projecting gabled bay. This entrance has a ca. 1990 single-light steel and glass door. On the north façade are three entrances with ca. 1990 single-light glass and steel doors. This façade has ten window bays. Two of the entrances have metal canopies supported by metal posts. Extending the length of this façade is a concrete loading dock with a steel-pipe railing.

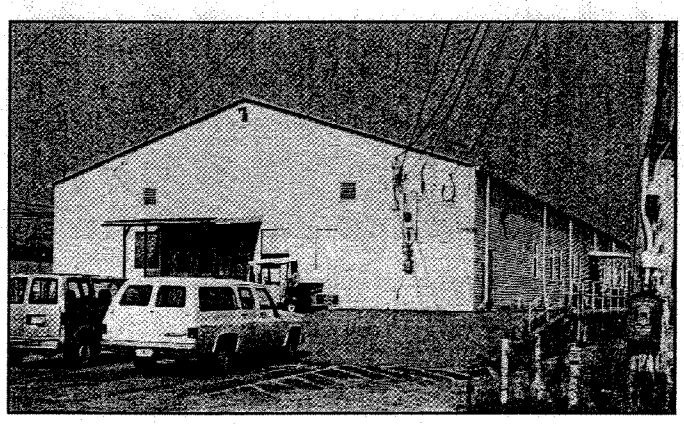

Figure B.74. Building C-743, north and east façades.

Security Facilities

Security facilities include the guard posts or portals that provide access into the plant and the Guard and Fire Headquarters (Building C-200). Some of the original portal buildings have been replaced by later structures and new portal buildings have also been erected in recent years due to heightened security threats. Table B.5 lists the security facilities that have been surveyed and are described in more detail.

Table B.5. Security facilities

Security Facilities	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-200 (Includes C-201, C-202, C-203, C-204	B.75	Guard and Fire Headquarters, Emergency Equipment Storage Building, Guard Training Building, Emergency Vehicle Shelter, and Disintegrator Building	19490	1953	Yes – Contributing
C-205	B.76	Respirator Issue Facility	3600	1998	Yes – Non-Contributing
C-207	B.77	Fire Training Facility	900	1993	No
C-215	Photo Not Available	Portals 18 and 19	1045	1957	Yes – Contributing
C-216	Photo Not Available	Post 47	500	1983	Yes – Non-Contributing
C-217	Photo Not Available	Post 43	108	1985	No

Building C-200 – Guard and Fire Headquarters (Survey Number MCN-98)

Building C-200 was constructed in 1953 to serve as the plant's police and fire station. This is a one-story, U-shaped building that has a flat roof of gravel and tar, a concrete foundation, and an exterior of concrete walls scored in rectangular patterns. The main (south) façade has an entrance with a single-light steel and glass door, flanking steel and glass sidelights, and a four-light transom. At this entrance is an original flat roof wood and metal canopy supported by concrete columns. There are two secondary entrances on this façade that have single-light steel and glass doors and a single-light sidelight. Windows on this façade are three-light steel and glass design and grouped together in sections of four.

Building C-200 was enlarged several times with added wings from the 1960s to the 1980s. At the southwest and west façades of the original building is a one-story wing built in 1986 (Building C-202). This building was designed by architects, Lockwood-Greene, to serve as a Guard Training Building. This building is of concrete-block construction with solid-steel doors on the east and south façades. At the northwest corner of the building is C-200-A, which was added in 1979 as an Emergency Vehicle Shelter.

On the east façade is a wing containing six drive-through bays for fire engines and other vehicles. Each bay is divided by a concrete pier and the bays have overhead-track steel doors. The north bay is of concrete-block construction. On the north façade are entrances with single-light steel and glass doors, and similar windows. On the east façade of the west wing is an open-air garage with a flat metal roof supported by steel posts. The west façade of the east wing has a four-story tower which contains a water tank. The west façade of the west wing lacks fenestration, except for a solid-steel door.

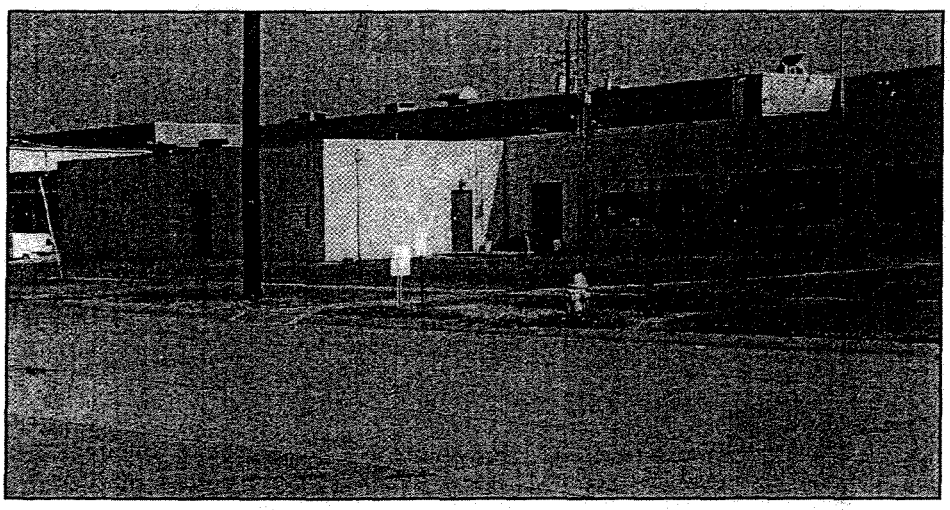

Figure B.75. Building C-200, south façade.

Building C-205 – Respirator Issue Facility (Survey Number MCN-99)

Building C-205 is a one-story prefabricated metal building constructed in 1998. The building has a poured-concrete foundation, gable roof of crimped metal, and an exterior of vertical steel panels. On the east façade is a pedestrian door with paired single-light steel doors and a garage bay with a steel roll-up door. There is one window on this façade that is single-light fixed-metal design. The main (west) façade has two pedestrian entrances with single-light steel and glass doors. The two window bays on this façade have fixed single-light metal and glass windows. The pedestrian entrances are accessed by concrete and steel stairs.

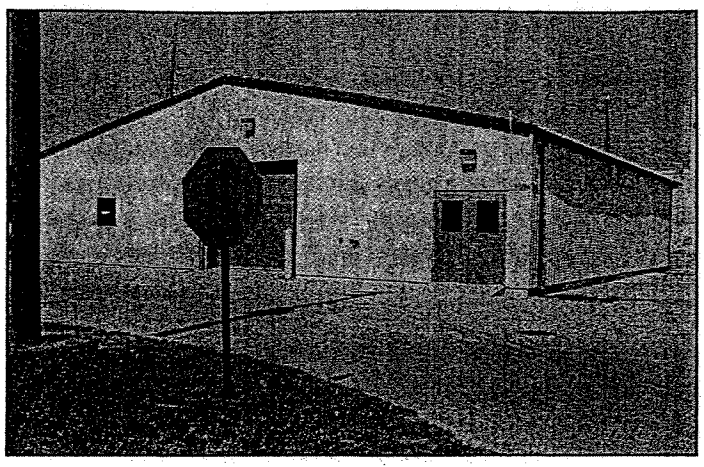

Figure B.76. Building C-205, north and east façades.

Building C-207 – Fire Training Facility (Survey Number MCN-100)

The Fire Training Facility is a three-story steel-frame building built in 1993. The building has a poured-concrete foundation, a steel flat roof, and an exterior of steel panels. On the south façade is a two-story steel staircase. On the main (east) façade is an entrance on the first floor with a solid-steel door. Window openings are covered with metal shutters. At the roofline is a steel railing. On the west façade is a one-story wing. On the west façade of this wing and the south façade of the building are solid-steel doors.

Figure B.77. Building 207, south and east façades.

Waterworks and Water Treatment Facilities

Waterworks and water treatment facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant. The water treatment plant and the north and south concrete water tanks are the only facilities that were saved from the KOW and refurbished for use by PGDP. Table B.6 lists the waterworks and water treatment facilities that have been surveyed and are described in more detail.

Table B.6. Waterworks and water treatment facilities

Waterworks and Water Treatment Facilities	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-611	B.78	Water Treatment Plant	15 Acres	1942	No
C-611-M	B.79	North Concrete Sanitary Water Tank	250,000 gallons	1942	No
C-611-N	B.80	South Concrete Sanitary Water Tank	250,000 gallons	1942	No
C-611-O	B.81	Sanitary Water Storage Tank	250,000 gallons	1953	Yes–Contributing
C-611-R	B.82	Water Tank	300,000 gallons	1953	Yes–Contributing
C-615	B.83	Sewage Disposal Plant	806	1952	No
C-616-A	B.84	Chemical Feed Building	2000	1978	No
C-616-B	B.86	Clarifier-East	1,350,000 gallons	1977	No
C-616-K	B.85	Service Building	420	1979	No

Building C-611 – Water Treatment Plant (Survey Number MCN-193)

Building C-611 refers to the facility's water treatment plant. This plant was originally built in 1942 to serve as the water treatment facility for the KOW. When PGDP was constructed in the early 1950s, the water treatment plant was retained and upgraded. The treatment plant consists of 15 acres and the main building (C-611-A), four reinforced concrete settling basins, two steel tanks for water softening, various small filter buildings, and pump stations. To the north of the main plant are sludge lagoons. The main building is of frame construction with a concrete foundation, gable roof of asphalt shingles, and exterior of vinyl siding. The building's original doors and windows were replaced ca. 1990 with fixed aluminum windows and metal doors.

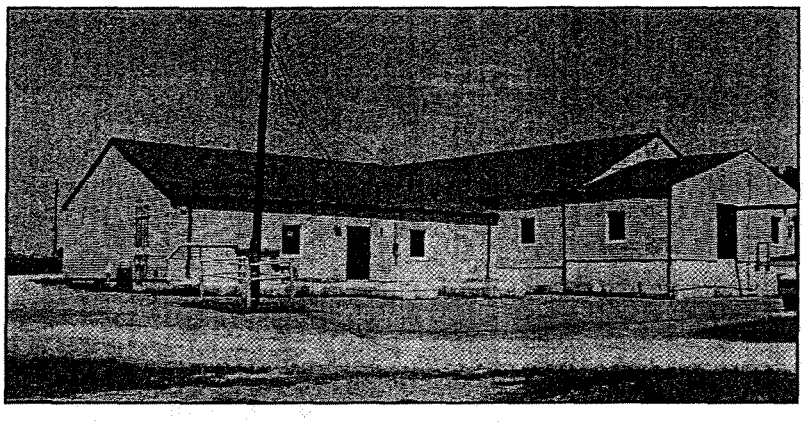

Figure B.78. Building C-611-A, south and west façades.

Building C-611-M – North Concrete Sanitary Tank (Survey Number MCN-194)

Built in 1942, the North Concrete Sanitary Tank was originally built as a water tank for the KOW. Following the closing of the plant in 1945, new water lines were built to connect the tank with PGDP. Since 1952, the tank has been used to hold and supply water to PGDP. The structure is circular in design, constructed of reinforced concrete, and has a capacity of 250,000 gallons. No ancillary buildings or structures are associated with this water tank.

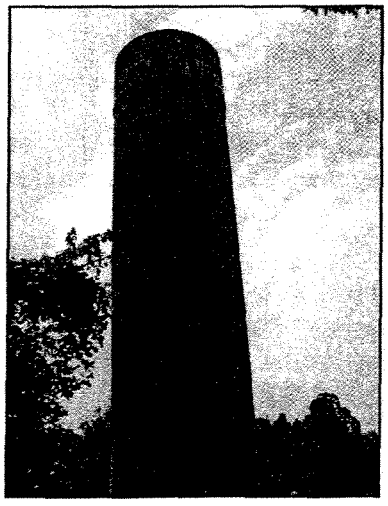

Figure B.79. Building C-611-M, North Concrete Sanitary Tank.

Building C-611-N – South Concrete Sanitary Tank (Survey Number MCN-195)

Built in 1942, the South Concrete Sanitary Tank was originally built as a water tank for the KOW. Following the closing of the plant in 1945, new water lines were built to connect the tank with PGDP. Since 1952, the tank has been used to hold and supply water to PGDP. The structure is circular in design, constructed of reinforced concrete, and has a capacity of 250,000 gallons. No ancillary buildings or structures are associated with this water tank.

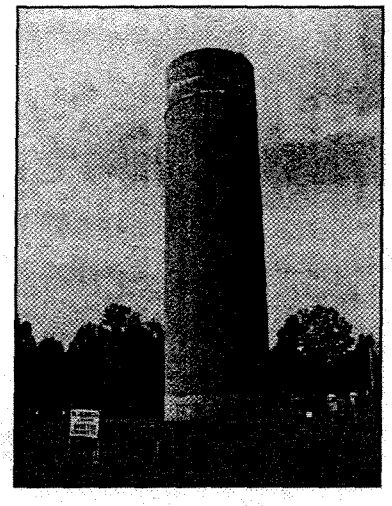

Figure B.80. Building C-611-N, South Concrete Sanitary Tank.

Building C-611-O – Water Treatment Storage Tank (Survey Number MCN-196)

This is a 250,000-gallon sanitary water storage tank, erected in 1953. It is of steel construction and is round with four steel support posts. The steel support posts rest on concrete pads. The water tank has a circular metal railing extending its circumference. This has a central water pipe from the tank to below grade.

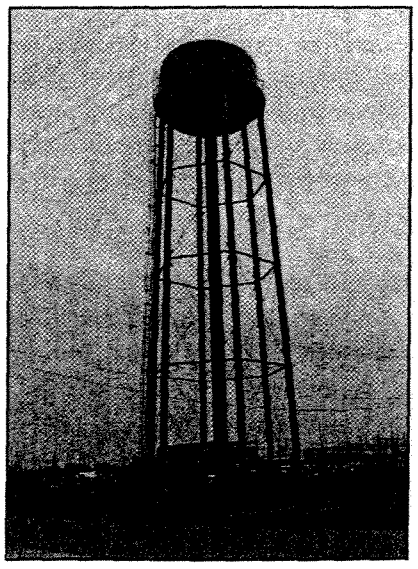

Figure B.81. Building C-611-O – Water Treatment Storage Tank, north and west façades.

Building C-611-R – Water Tank (Survey Number MCN-197)

This is a 300,000-gallon steel water tank, erected in 1953. It has a central water pipe that extends from the tank to below grade. The water tank rests on six steel support posts that are anchored into concrete pads. The water tank is circular in design and has a metal railing that extends around the tank. The function of C-611-R is to supply capacity and head pressure to the plant process building fire sprinkler system.

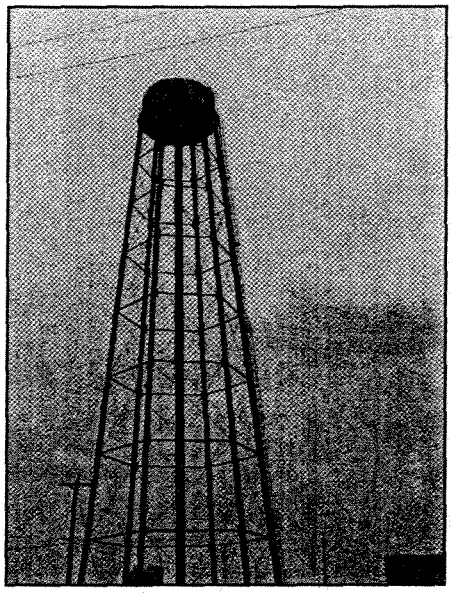

Figure B.82. Building C-611-R, north and west façades.

Building C-615–Sewage Disposal Plant (Survey Number MCN-198)

This complex was built in 1952 and consists of a two-story reinforced concrete building and associated settling tanks and lift stations. Building C-615 has a concrete foundation, a flat roof of gravel and tar, an exterior-wall concrete flue, and an exterior of smooth concrete. On the east façade are two pedestrian entrances with original two-light steel and glass doors. Windows are original 12-light and six-light steel hopper design. On the south façade are two windows, one 12-light and the other an eight-light steel design. The north façade has an exterior wall, a concrete flue, and an original 12-light steel window. On the west façade are two pedestrian entrances with original two-light steel and glass doors. This façade also has two original 12-light steel and glass windows.

To the east of the main building is a settling tank that is a below-grade rectangular concrete tank with a pipe railing along its perimeter. Another structure includes a digester that is circular in design. Also on the property is Building C-615-H, a Sewage Disposal Plant-Lift Station which is a one-story, concrete-block building which houses mechanical equipment. It has a poured-concrete foundation, a built-up flat roof, and exterior walls of concrete-block. On the main (west) façade is a solid-steel door.

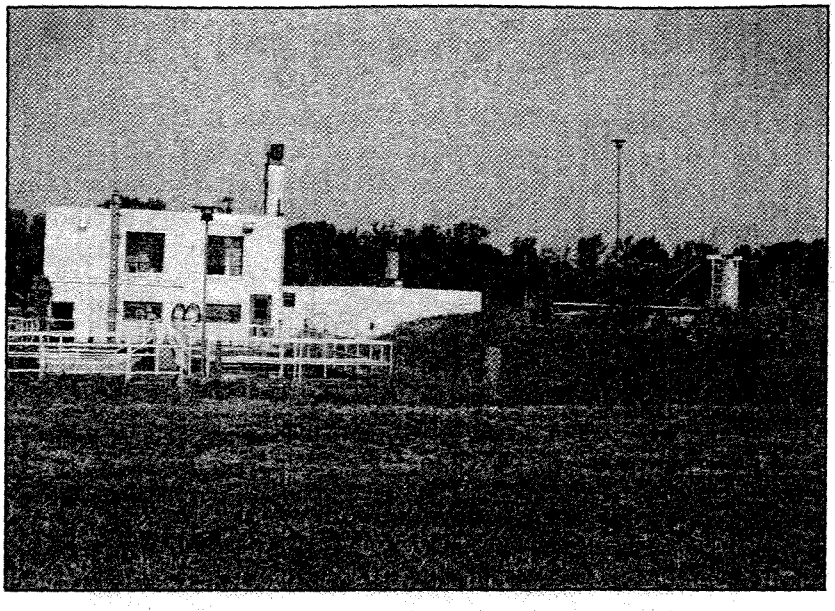

Figure B.83. Building C-615, east façade.

C-616-A – Chemical Feed Building (Survey Number MCN-199)

Building C-616-A is a one-story, prefabricated metal building built in 1978. This building has a poured-concrete foundation, a roof of crimped steel panels, and exterior walls of steel panels. On the main (east) façade is a garage bay with an overhead steel track door. This façade also has a pedestrian door of single-light glass and steel design. On the north façade is an entrance with a single-light steel and glass door. On the west façade is a single-light steel and glass door, and a solid-steel door.

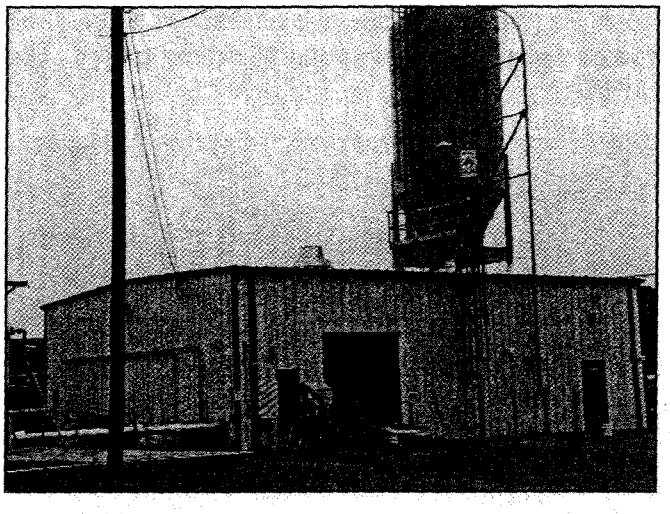

Figure B.84. Building C-616-A, south and east façades.

Building C-616-K – Service Building (Survey Number MCN-201)

C-616-K is a one-story, prefabricated metal building erected in 1979. This building has a concrete foundation, a shed roof of steel panels, and exterior walls of steel panels. On the main (south) façade is a garage bay with an overhead-track steel door. On the west façade is an entrance with a single-light glass and steel door. There is no fenestration on the east façade and a wall air-conditioning unit on the north façade. At the roofline is a circular vent.

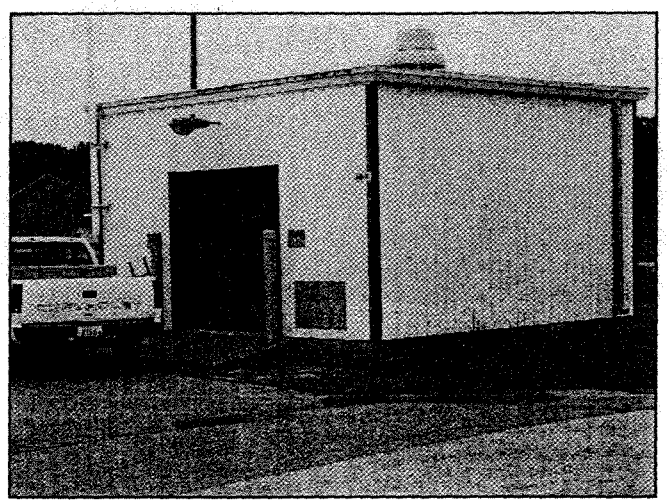

Figure B.85. Building C-616-K, south and east façades.

Building C-616-M & B – Clarifier Tanks (Survey Number MCN-200)

To the west of C-616-A are two large identical-plan clarifier tanks, C-616M and C-616-B. These are round, steel tanks with large water pipes connecting to nearby pumps. These tanks hold 1,350,000 gallons and were erected in 1978.

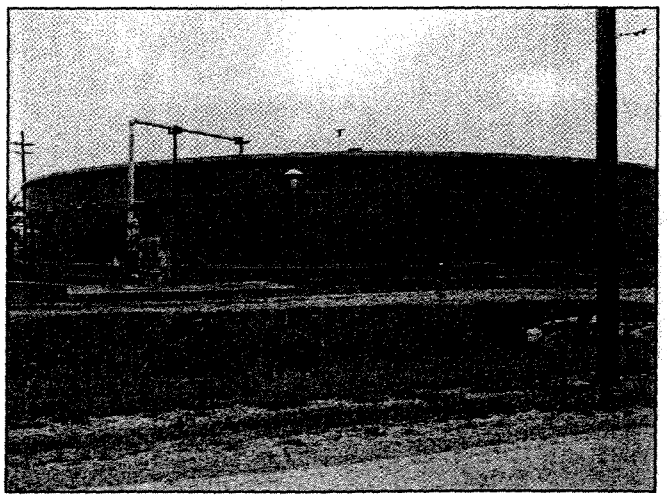

Figure B.86. Building C-616-B, north façade.

Storage Tanks

Storage tanks are scattered throughout PGDP to hold various chemicals, such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600). Table B.7 lists the storage tanks that have been surveyed and are described in more detail.

Table B.7. Storage tanks

Storage Tanks	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-406	B.87	Trichloroethylene Storage Tank	6015 gallons	1953	Yes – Contributing
C-407	B.88	Nitric Acid Storage Tank	11,000 gallons	1953	Yes – Contributing
C-540-B	B.89	Oil Storage Tank (Northwest)	15,000 gallons	1953	Yes – Contributing
C-540-C	B.89	Oil Storage Tank (Southwest)	15,000 gallons	1953	Yes – Contributing
C-540-D	Appendix D MCN-173	Oil Storage Tank (Northeast)	7500 gallons	1953	Yes – Contributing
C-540-E	Appendix D MCN-174	Oil Storage Tank (Southeast)	15,000 gallons	1953	Yes – Contributing
C-541-B	B.90	Oil Storage Tank (Northwest)	7500 gallons	1953	Yes – Contributing
C-541-C	Appendix D MCN-177	Oil Storage Tank (Southwest)	15,000 gallons	1953	Yes – Contributing
C-541-D	B.90	Oil Storage Tank (Northeast)	7500 gallons	1953	Yes – Contributing
C-541-E	Appendix D MCN-179	Oil Storage Tank (Southeast)	15,000 gallons	1953	Yes – Contributing
C-601-A	Appendix D MCN-182	Steam Plant Fuel-Storage Tank (Center)	420,000 gallons	1953	No
C-601-B	B.91	Steam Plant Fuel-Storage Tank (South)	420,000 gallons	1953	No
C-601-D	B.91	Fuel Oil Storage Tank (North)	1,000,000 gallons	1974	No
C-603-E	B.92	Nitrogen Storage Tank (East)	11,000 gallons	1974	Yes – Non-Contributing
C-603-F	B.92	Nitrogen Storage Tank (Center)	11,000 gallons	1975	Yes – Non-Contributing
C-603-G	B.92	Nitrogen Storage Tank (West)	11,000 gallons	1975	Yes – Non-Contributing

Building C-406 – Storage Tank (Survey Number MCN-144)

Building C-406 is a storage tank that was erected to contain trichloroethylene. This 6015-gallon tank is located adjacent to Building C-400 and was used to contain chemicals assisting in the cleaning of machinery. The steel tank is cylindrical in form and rests on a concrete foundation and piers.

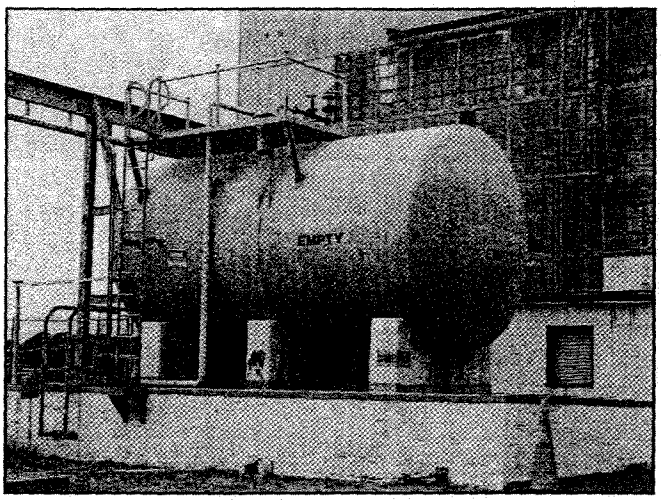

Figure B.87. Building C-406, north and east façades.

Building C-407 – Storage Tank (Survey Number MCN-145)

Building C-407 is a storage tank for nitric acid and is located to the west of Building C-400. The tank was designed to hold 11,000 gallons of nitric acid for use in the cleaning of equipment within Building C-400. The steel tank is cylindrical in form and rests on a concrete foundation with concrete piers.

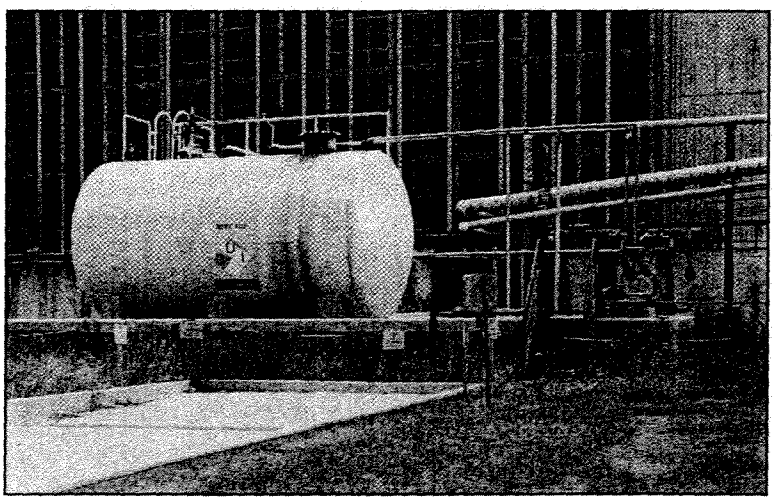

Figure B.88. Building C-407, south and west façades.

Buildings C-540-B, -C, -D and -E – Oil Storage Tanks (Survey Number MCN-171, MCN-172, MCN-173, and MCN-174)

Buildings C-540-B, -C, -D and -E are oil storage tanks and are associated with Oil Pump House C-540-A. Buildings C-540-D and -E are east of the pump house while B and C are west. These storage tanks are made of steel and rest on concrete foundations. Both tanks are set within below-grade concrete basins. Three of the tanks, C-540-B, -C, and –E, were designed to hold 15,000 gallons of oil, while C-540-D contains 7500 gallons.

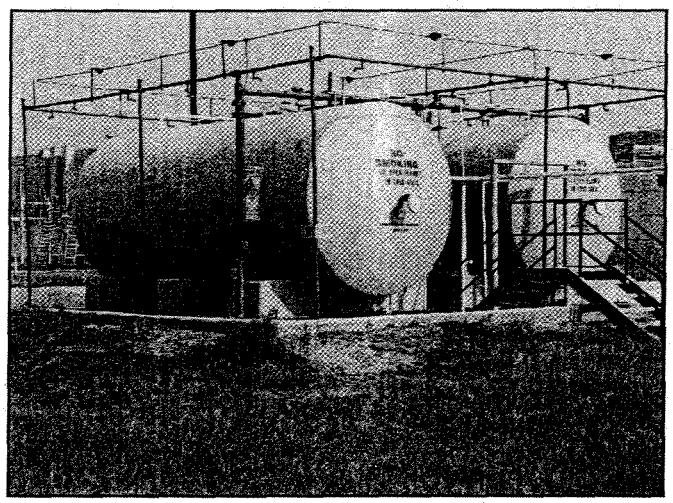

Figure B.89. Buildings C-540-B & -C, south and east façades.

Buildings C-541-B, -C, -D and -E – Oil Storage Tanks (Survey Numbers MCN-176, MCN-177, MCN-178, and MCN-179)

Buildings C-541-B, -C, -D, and -E are oil storage tanks and are associated with Oil Pump House C-541-A. These storage tanks are made of steel and rest on concrete foundations. Both tanks are set within below-grade concrete basins. Tanks C-541-B and -D were designed to hold 15,000 gallons of oil, while tanks C-541-C and -E contain 7500 gallons.

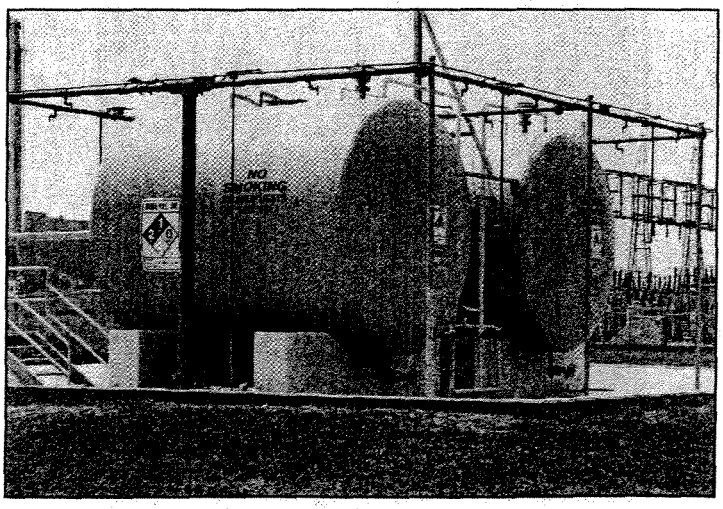

Figure B.90. Buildings C-541-B and -D, north and east façades.

Buildings C-601-A, -B and -D (Survey Numbers MCN-182, MCN-183, and MCN-185)

To the east of Building C-600, the plant's steam plant, are two identical-plan storage tanks (C-601-A and -B), which were constructed in 1953. These tanks are circular in design with flat roofs and exterior-wall steel stairs. These tanks contain 420,000 gallons of fuel oil. To the northeast of the building is C-601-D, a 1,000,000-gallon fuel oil storage tank. The tank, built in 1974, is round with a flat roof and exterior-wall steel stairs.

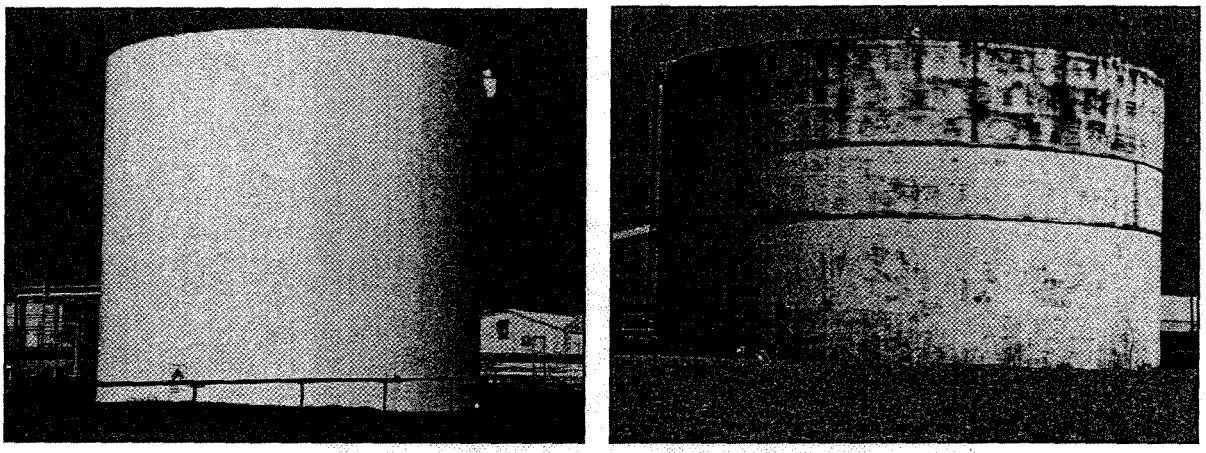

Figure B.91. Building 601-B, south and east façade and Building C-601-D, south and east façade.

Buildings C-603-E, -F, and -G (Survey Number MCN-186, MCN-187, and MCN-188)

Located adjacent to Building C-600, the plant's steam plant, these three storage tanks were designed to hold 11,000 gallons of nitrogen. All three tanks are of steel construction and are identical in plan.

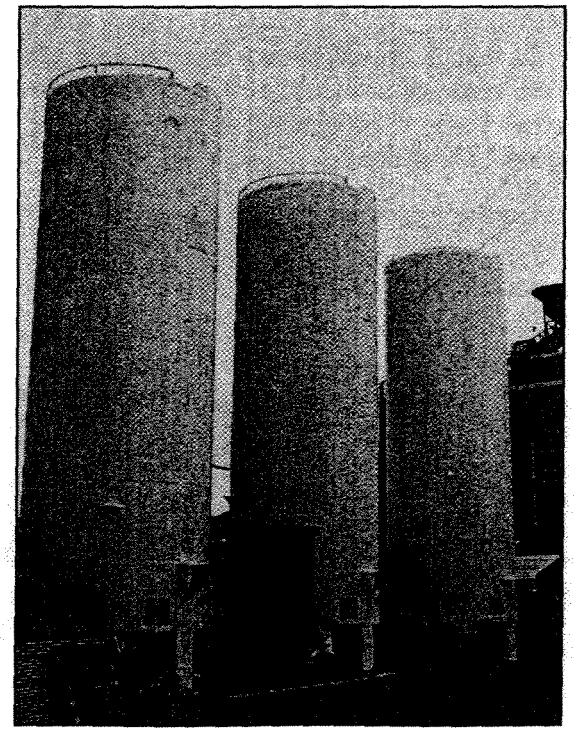

Figure B.92. Buildings C-603-E, -F, and -G, south and west façades.

Support, Maintenance, and Warehouse Buildings

Support, maintenance, and warehouse buildings are those that support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the process buildings. They also provide services to maintain other equipment, to support building maintenance and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400, then it is either reused or placed on standby. Building C-409 contains facilities for the pre-conditioning of cascade equipment before it is exposed to UF_6. Other buildings in this category include the Utilities Maintenance Building (Building C-604) and Building C-730.

Support buildings include the cafeteria and hospital (buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings, such as C-746-A and -B, and storage facilities, such as the Maintenance Materials Storage Building (C-732). Table B.8 lists the support, maintenance, and warehouse buildings that have been surveyed and are described in more detail.

Table B.8. Support, Maintenance, and Warehouse Buildings

Support, Maintenance, and Warehouse Buildings	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-101	B.93	Cafeteria	18326	1953	Yes – Contributing
C-102	B.94	Hospital	11666	1953	Yes – Contributing
C-301	B.95	Low-Level Waste Storage	2802	1959	Yes – Contributing
C-342 and C-342-A	B.96	Ammonia Dissociator Building	1242/1224	1953/1956	Yes – Contributing
C-342-B	B.97	Ammonia Dissociator Tank Shelter	Tank Area 2304	1978	Yes – Non-Contributing
C-350	B.98	Drying Agent Storage Building	1570	1973	Yes – Non-Contributing
C-360	B.99	Toll Transfer and Sampling Building	17800	1982	Yes – Non-Contributing
C-400	B.100 and B.101	Cleaning Building	116140	1954	Yes – Contributing
C-402	B.102	Lime House	1742	1953	Yes – Contributing
C-403	Appendix D MCN-142	Neutralizing Pit	900	1953	Yes – Contributing
C-405	B.103	Contaminated Items Incinerator	1010	1952	No
C-408	B.104	50-Ton Truck Scale	130	1963	Yes – Contributing
C-409	B.105	Stabilization Building	26797	1976	No
C-415	B.106	Feed Plant Storage Building	3666	1960	Yes – Contributing
C-600	B.107	Steam Plant	47424	1952	No
C-601	B.108	Nitrogen Generator Building Addition	1128; 1122	1952	No
C-601-C	B.109	Steam Plant Fuel Oil Pump House	148	1952	No
C-604	B.110	Utilities Maintenance Building	2400	1979	No
C-605	B.111	Substation Building	1200	1979	No
C-606	B.112	Coal Crusher Building	1470	1980	No

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Table B.8. Support, Maintenance, and Warehouse Buildings (Continued)

Support, Maintenance, and Warehouse Buildings	Figure	Function	Floor Area (square feet)	Construction Date	National Register Historic District
C-607	B.113	Emergency Air Compressor Generator Building	2000	1984	No
C-710-A	B.114	Gas Cylinder Storage Building	400	1953	Yes – Contributing
C-711	B.115	Gas Manifold	962	1953	Yes – Contributing
C-720	B.116	Maintenance and Stores Building	299944	1952	No
C-720-G	B.117	90-Day Storage /Stores Storage	10800	1976	No
C-720-H	B.118	Warehouse	2400	1978	No
C-721	B.119	Gas Manifold Storage	962	1952	No
C-724-A	B.120	Carpenter Shop Annex	3900	1954	No
C-724-B	B.121	Carpenter Shop	10215	1954	No
C-724-C	B.122	Paint Shop	1600	1954	No
C-724-D	B.123	Lumber Storage Building	2880	1954	No
C-726	B.124	Sandblast Building	2019	1973	No
C-727	B.125	90-Day Mixed Waste Accumulation	4428	1954	Yes – Contributing
C-728	B.126	Motor Cleaning Facility	1597	1958	No
C-729	B.127	Acetylene Building	430	1956	No
C-730	B.128	Maintenance Service	1057	1955	No
C-731	B.129	Railroad Repair Equipment Storage Building	1280	1981	No
C-732	B.130	Maintenance Materials Storage Building	1680	1981	No
C-733	B.131	Waste Oil and Chemical Storage Facility	1680	1985	No
C-740-B	Appendix D MCN-250	Oil Drum Storage Shelter	2800	1975	No
C-741	B.132	Mobile Equipment Building	5360	1952	No
C-742	B.133	Cylinder Storage Building	5360	1952	No
C-744	B.134	Material Handling	6400	1952	No
C-746-A	B.135	North Warehouse	72000	1954	No
C-746-B	B.136	South Warehouse	72000	1959	No
C-746-G	B.137	Electrical Equipment Storage	2400	1974	Yes – Non-Contributing
C-746-L	Appendix D MCN-258	Tractor Storage	364	1985	No
C-746-M	Appendix D MCN-259	Waste Uranium Chip Storage Facility	432	1976	No
C-746-Q	B.138	Hazardous and Low-Level Waste Storage	33165	1965	No
C-746-Q1	Appendix D MCN-261	High-Assay Waste Storage Facility	16335	1965	No
C-750	B.139	Garage	11866	1952	Yes – Contributing
C-751	B.140	Fuel Dispensing Facility	50	1991	No

Building C-101 – Cafeteria (Survey Number MCN-96)

The cafeteria was built in 1953 to serve as the main dining-hall facility for the plant. The building has a poured-concrete foundation, an exterior of smooth concrete walls, and a flat roof of gravel and tar. On the main (north) façade is a recessed entry bay. The entrance has paired, single-light steel and glass doors. The bay next to the entrance has large picture windows. The building has windows of three-light horizontal design with the top two panels hinging in an awning design. The exterior walls of the building are scored in rectangular patterns. On the west façade are five window bays, a garage bay, and a loading dock. On the east façade is a window bank of fixed single-light steel and glass windows. At the rear, a one-story wing connects the building with Building C-100.

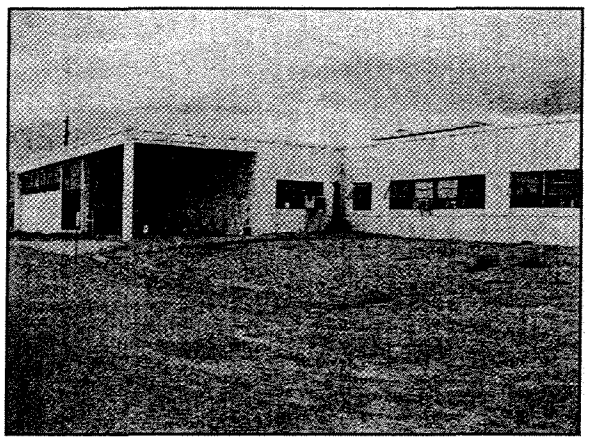

Figure B.93. Building C-101, north and west façades.

Building C-102 – Hospital (Survey Number MCN-97)

The hospital was built in 1953 to provide medical facilities for workers at the plant. The building was originally detached, but is now connected via an addition to Building C-100 on the south façade. The one-story building has a flat roof of gravel and tar, a poured-concrete foundation, and an exterior of concrete scored into rectangular panels. On the main (east) façade is an entrance with a flat roof metal canopy and steel posts. This entrance has original double doors of a two-light steel and glass design. In the south bay of this façade is an entrance with a single-light glass and wood door. Windows are of a fixed, single-light glass and wood design and are grouped in sections of two, three, and four on the south, east, and north façades.

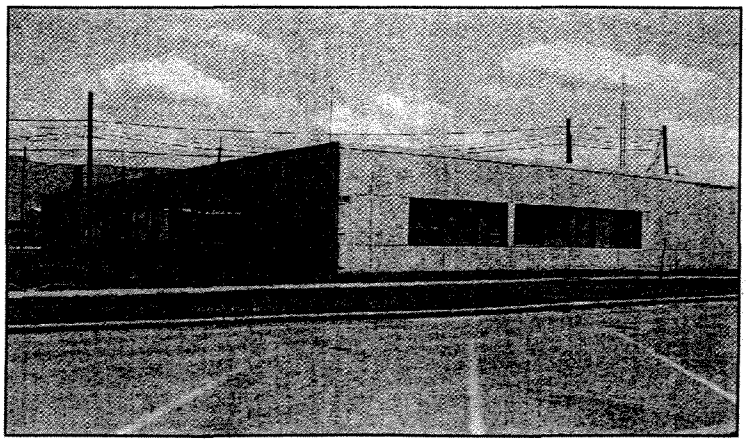

Figure B.94. Building C-102, north and west façades.

Building C-301 – Low-Level Waste Storage Building (Survey Number MCN-107)

Building C-301 is a Low-Level Waste Storage facility constructed in 1959. The rectangular-plan building has a poured-concrete foundation, an open roof, and exterior walls of vertical steel panels. On the main (west) façade is a garage-bay entrance with an overhead steel track door. There are two similar entrances on the north and south façades. On the east façade is a garage-bay entrance with an overhead-track door. There is no other fenestration. This was originally a fire training building but is now used as a facility for item size reduction prior to disposal.

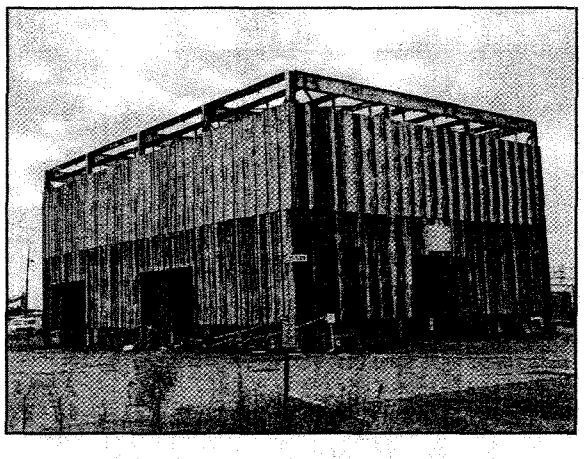

Figure B.95. Building C-301, north and west façades.

Buildings C-342 and C–342-A - Ammonia Dissociator Building and Addition (Survey Numbers MCN-134 and MCN-135)

This is a one-story concrete-block building. It has a poured-concrete foundation, a built-up flat roof, and exterior walls of concrete-block. On the main (west) façade is a central bay entrance with original three-panel steel double doors. Flanking this entrance are 30-light fixed-steel windows with concrete sills. Also at the corners of this building are secondary entrances, each with three-panel original steel doors. At the roofline is a steel railing around the perimeter of the building. On the east façade is an entrance with an original two-light steel and glass door. This façade also has steel-louvered vents. At the rear is a one-story addition, Building C-342-A, built in 1956. This wing is of concrete-block and it has a flat roof. On the west façade is an entrance with paired, six-light steel and glass doors. This façade also has two steel-louvered vents. The south façade lacks fenestration.

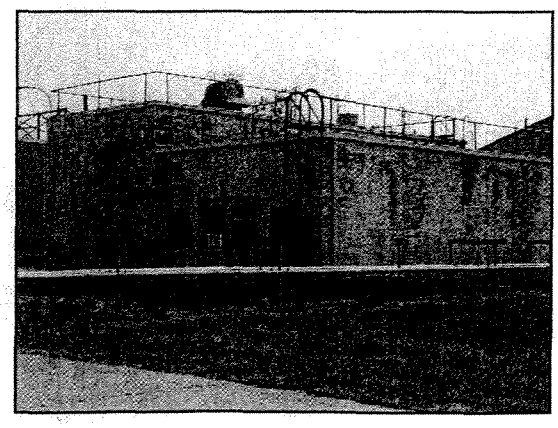

Figure B.96. Building C-342, north and east façades, and Building C-342-A, west and south façades.

Building C-342-B – Ammonia Tank Shelter (Survey Number MCN-136)

This is a one-story steel building constructed to shelter cylindrical ammonia tanks. This building is raised above the tanks by steel posts that rest on concrete piers. The tanks are set within a rectangular concrete basin. The building has walls and a roof of transite panels. On the south façade is a steel staircase that leads to an entrance containing a steel door. Within this structure are two ammonia tanks.

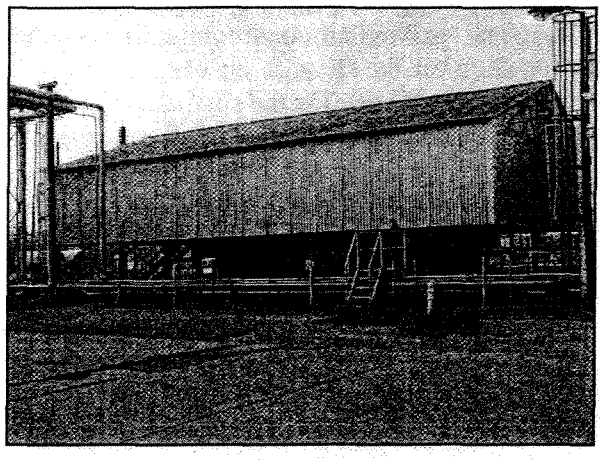

Figure B.97. Building C-342-B, north and west façades.

Building C-350 – Drying Agent Storage Building (Survey Number MCN-137)

This is a one-story building of concrete-block construction built in 1973. It is composed of two separate buildings connected by pipes below the roofline. Both buildings have poured-concrete foundations, built-up shed roofs, and exterior walls of concrete-block. The east building has two entrances: the east bay has an original single-light glass and wood door and the west bay has an original double door of single-light steel and glass design. There are two windows on this façade: one is a fixed, two-light steel design and the other is a fixed, four-light steel design. On the east façade are two entrances with original single-light steel and glass doors. There are three windows on the south façade of four-light fixed-steel design. On the west façade are two, single-light steel and glass doors. The buildings contain large chemical tanks. On the east façade of the building is a three-light steel and glass door. The south façade of the building has three, four-light fixed-steel windows. There is no fenestration on the north façade. On the west façade is a three-light steel and glass door.

Figure B.98. Building C-350, north and east façades.

Building C-360 – Toll Transfer and Sampling Building (Survey Number MCN-138)

Building C-360 is a prefabricated steel building erected in 1982 and is composed of two sections: a large two-story storage area and a one-story administration wing. The building has a built-up, gable roof, exterior walls of steel panels, and a poured-concrete foundation. The administration wing has a main entrance on the north façade. This entrance has a single-light steel and glass door. A secondary entrance on this façade has double doors of single-light steel and glass design. Windows on this façade are of a fixed, single-light design. This wing has two wall air-conditioning units on the west façade. The two-story section has a large garage bay on the west façade with an overhead-track steel door. Adjacent to this entrance is a large, rectangular steel-louvered vent. On the south façade is a garage bay with an overhead-track door. Also on the east and north façades are overhead-track garage-bay doors. On the east façade of the administration wing is a garage bay with an overhead-track door and a pedestrian door of single-light steel and glass design. This building is equipped for both rail and truck access.

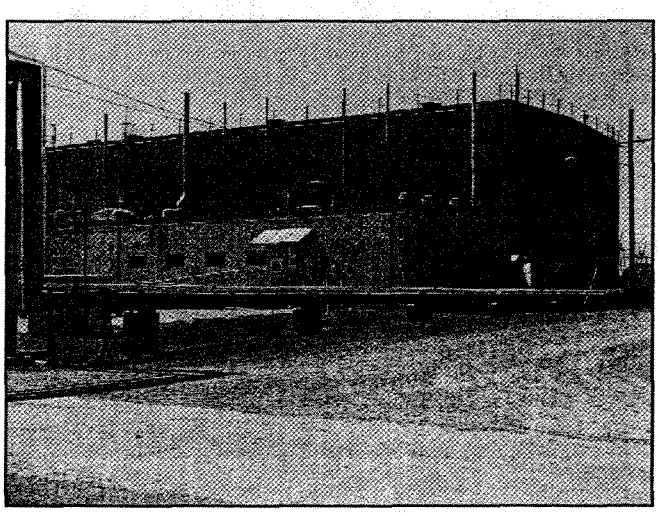

Figure B.99. Building C-360, north and west façades.

Building C-400 – Cleaning Building (Survey Number MCN-140)

Building C-400 is a large, one-story building of steel and concrete construction built in 1952. The building has a concrete foundation and a flat roof of built-up roofing material. The exterior walls are constructed of concrete to approximately six to seven feet above grade. The remaining portion of the upper façade is of transite panels. On the east façade of the building is an original one-story concrete wing and a ca. 1970 concrete-block wing. The concrete-block wing has fixed, single-light aluminum and glass windows and two entrances with single-light steel and glass door. The original concrete wing has an original two-light steel and glass door on the south façade. The concrete wing on this façade has six large steel exhaust stacks. The upper façade of the east elevation is composed of a large window wall. This window wall contains four rows of 15-light and ten-light steel windows. These windows are fixed, except for six-light hinged panels that allow for air circulation in the building. At the roofline is a flat parapet wall with metal coping.

On the east façade of the one-story wing on the east elevation is an original two-light steel and glass door. The east façade of the main section of the building has a garage bay near the northeast corner of the building that features a steel, roll-up door. The north façade of the building has a lower façade of concrete and an upper façade of transite panels. This façade has four garage bays with original steel and glass overhead-track doors. This façade also has five pedestrian doors of single-light and two-light steel and glass design. On the upper façade, the east half contains a window wall of two rows of 15-light and

ten-light steel and glass design windows. These windows have central hinged four-light and six-light panels. The west section of this upper façade is of transite panels and lacks fenestration. The west façade of the building is similar to the east façade except that it lacks any wings. This façade has three entrances with original two-light steel and glass doors. The upper façade has a large window wall composed of three rows of ten-light and 15-light windows. Above the windows and below the roofline are transite panels. Adjacent to this façade is a concrete platform and Building C-407, a Nitric Acid Storage Tank. To the north of Building C-402 is Building C-403, a rectangular, at-and-below-grade concrete-lined neutralizing pit.

The south façade has four garage bays with steel and glass overhead-track doors. This façade has three pedestrian doors of original single-light and two-light steel and glass design. The upper façade of this elevation is composed of transite panels and lacks fenestration.

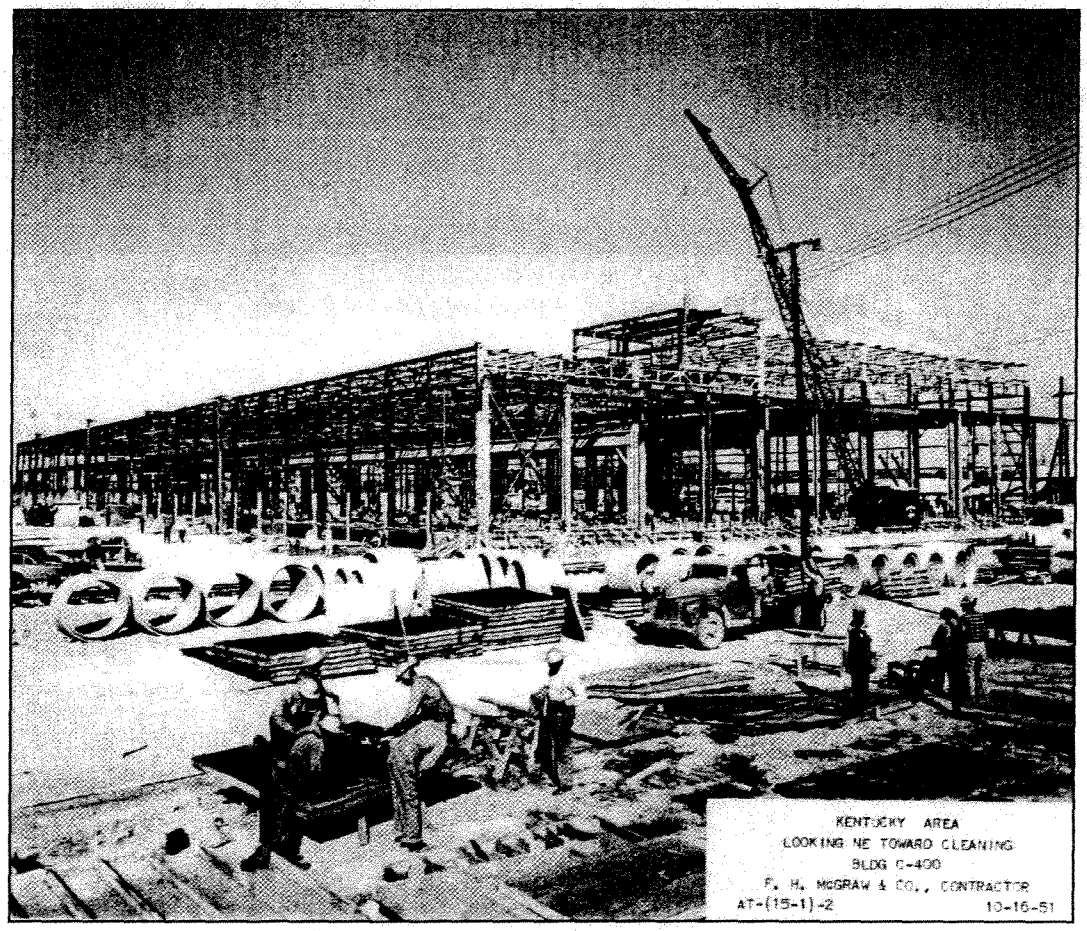

Figure 100. Construction of Building C-400 in October 1951.

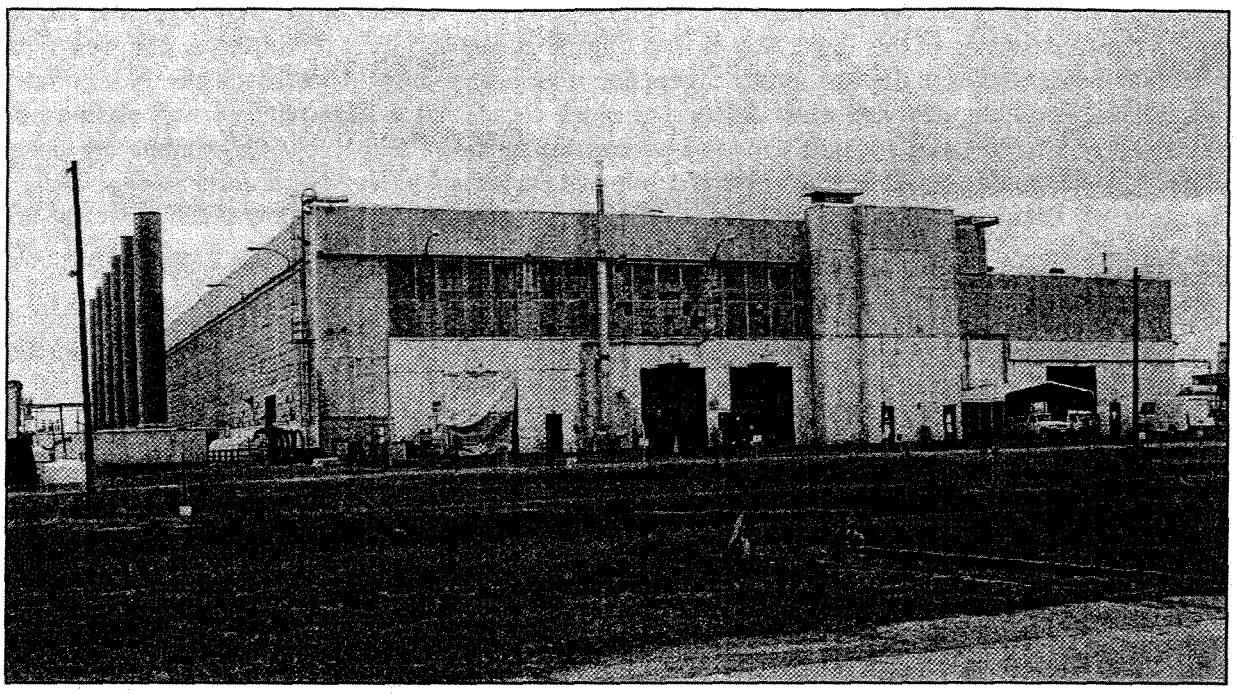

Figure B.101. Building C-400, north and east façades.

Building C-402 – Lime House (Survey Number MCN-141)

Building C-402 is a one-story Lime House of reinforced concrete construction built in 1950. The building has a concrete foundation, a built-up flat roof, and exterior walls of smooth concrete. On the main (south) façade is an entrance with original double doors of two-light steel and glass design. Above the entrance is a steel-louvered vent. This entrance is accessed by a concrete and steel staircase and concrete loading-dock platform. On the east, west, and north façades are original, nine-light fixed-steel windows with concrete sills.

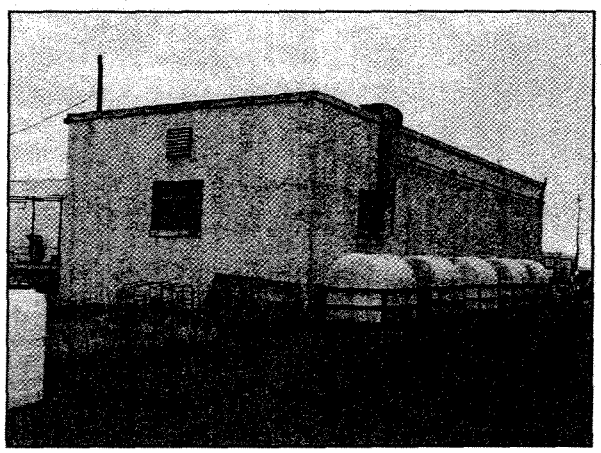

Figure B.102. Building C-402, west and north façades.

Building C-405 – Contaminated Items Incinerator Building (Survey Number MCN-143)

Building C-405 is a one-story incinerator building completed in 1952. The building has a poured-concrete foundation, an exterior of transite panels, and a shed-roof transite. On the main (north) façade are two garage bays with overhead-track, four-light steel and glass doors. On the west façade is a pedestrian door of single-light transite and steel design. A window on this façade is of six-light steel and glass awning design. The east façade has similar fenestration. On the south façade are two 12-light steel and glass windows with inserted four-light awning panels.

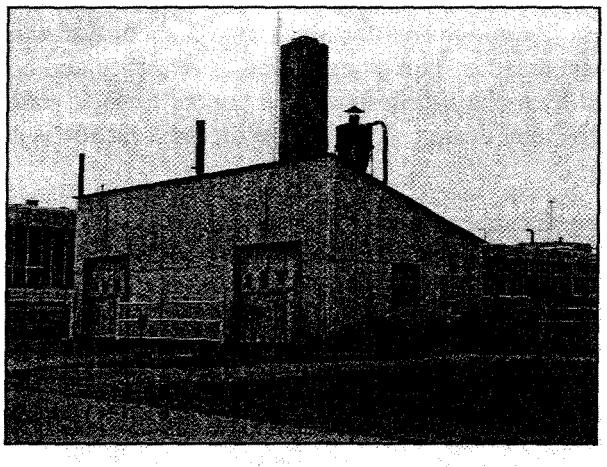

Figure B.103. Building C-405, north and west façades.

Building C-408 – 50-Ton Truck Scale Building (Survey Number MCN-146)

This building was constructed in 1963 and is of concrete-block construction. It houses weighing equipment for a 50-ton truck scale. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of concrete-block. On the main north façade is an entrance with an original two-light steel and glass door. This façade also has a 12-light fixed-steel window. On the west and east façades are 12-light steel windows with inset four-light awning panels. The south façade lacks fenestration. Below the windows are concrete-block sills. In front of the building is a rectangular concrete pan containing a concrete and steel truck scale.

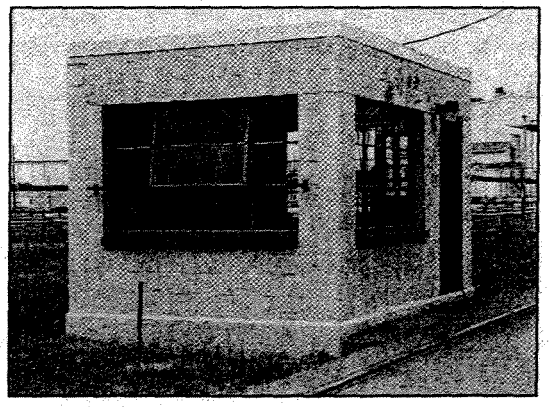

Figure B.104. Building C-408, north and east façades.

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Building C-409 – Stabilization Building (Survey Number MCN-147)

The Stabilization Building was erected in 1976 and is a one-story, rectangular-plan, prefabricated building. It has a poured-concrete foundation, a gable roof of crimped metal panels, and an exterior of vertical metal panels. The south façade has two garage bays with overhead-track steel doors. Adjacent to the garage doors are pedestrian doors of three-light steel and glass design. On the east façade of the building is a shed-roof wing. On the south façade of this wing is a two-light steel and glass door. There is no fenestration on the east façade except for a single-light steel and glass door. The north façade has two garage bays with large, steel overhead-track doors. Adjacent to these entrances are pedestrian entrances with three-light steel and glass doors. On this façade is also a shed-roof wing with three-light steel and glass doors on the east and west façades. This wing served as an office and control area. Also, this façade is a transformer area enclosed by a chain-link fence and concrete-block wall. Windows in the shed-roof wing are of a fixed, single-light steel design. Attached on the west façade is a small concrete-block wing. This façade lacks fenestration.

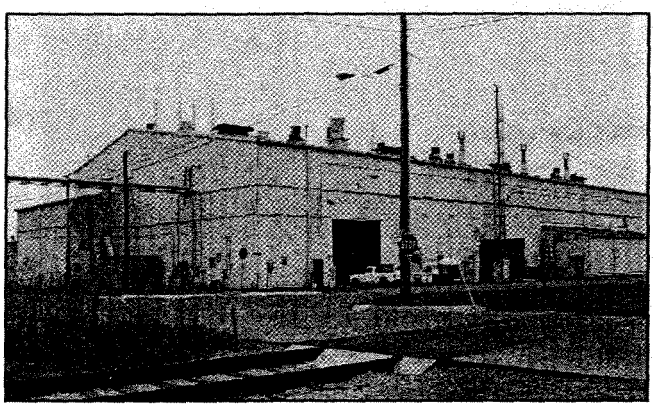


Figure B.105. Building C-409, north and east façades.

Building C-415 – Feed Plant Storage Building (Survey Number MCN-149)

This is a one-story, prefabricated steel storage building. It has a poured-concrete foundation, a gable roof of corrugated metal, and an exterior of vertical steel panels. On the main (south) façade is a garage bay with an original, sliding-track overhead steel door. The pedestrian door on this façade has an original steel and glass door. In the gables, on the east and west façades are steel-louvered vents. The north façade lacks fenestration. At the roofline are two circular exhaust vents.

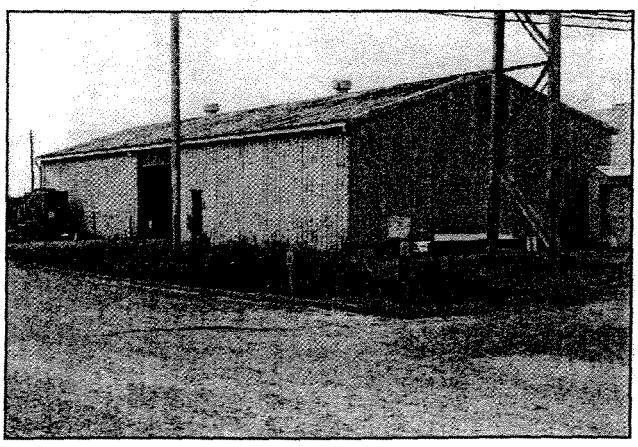


Figure B.106. Building C-415, south and east façades.

Building C-600 – Steam Plant (Survey Number MCN-180)

Building C-600 is a two-story steam plant built in 1952. It contains several one-story wings. The building has a concrete foundation, a built-up flat roof, and an exterior of concrete and transite panels. On the south façade is a pedestrian door of original two-light steel and glass design. Attached to the south façade is a one-story wing. This wing has paired, two-light steel and glass doors on the west façade. Flanking the entrance are original, eight-light steel and glass windows. This wing lacks fenestration on the south façade. The east façade of this wing has paired, two-light glass and wood doors flanked by eight-light steel and glass windows. The south façade also has a large garage bay with a steel overhead-track door. The south façade has two rows of windows in horizontal bands. The windows on the first story are in a continuous row except for the garage bay. These windows are of eight-light steel and glass design, with central four-light hinged panels. The second story has a row of similar windows that extend across much of the width of the façade.

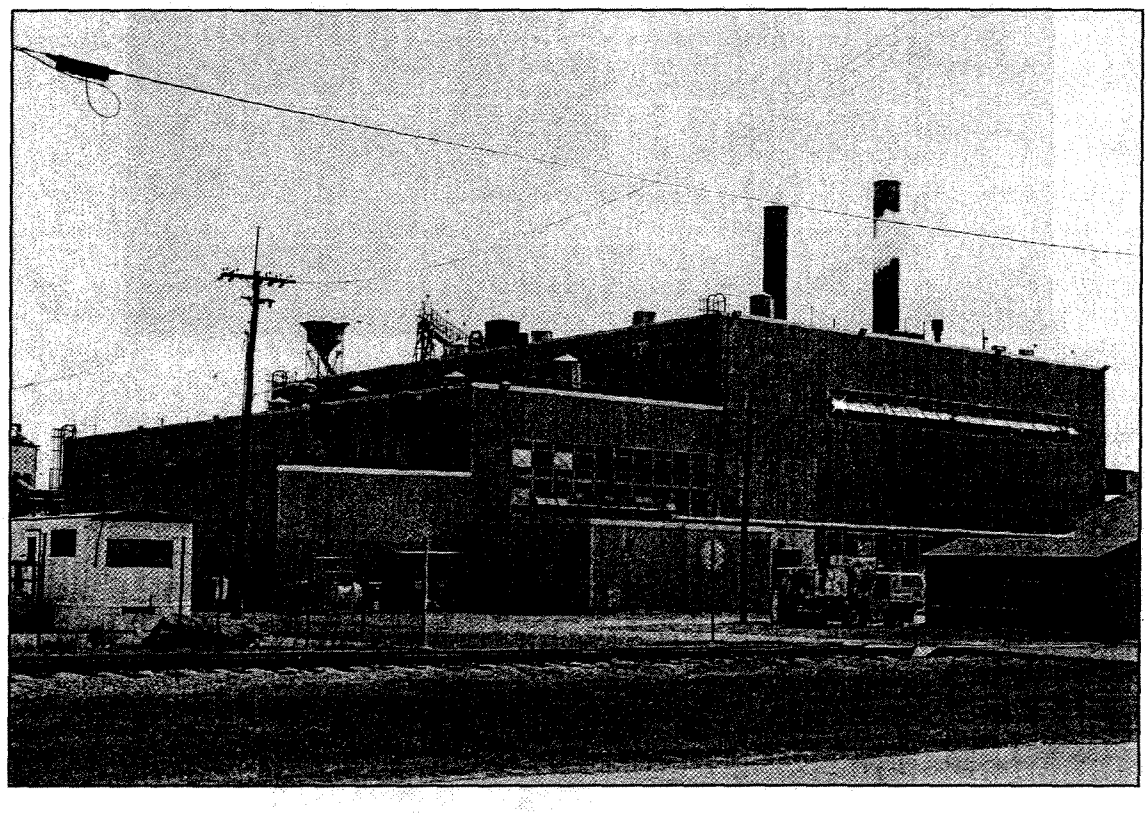


Figure B.107. Building C-600, south and west façades.

Building C-601 – Nitrogen Generator Building (Survey Number MCN-181)

On the west façade of C-600 is a one-story wing built in 1952 designated as C-601, the Nitrogen Generator Building. This building lacks fenestration on the south façade. On the west façade are two garage bays with steel overhead-track doors. Windows on this façade are eight-light steel and glass design grouped together in three rows with each row containing 12 windows. A small concrete-block wing on this façade has a single-light steel and glass door and louvered vent. On the east façade of the building is a pedestrian entrance with paired single-light steel and glass doors. In the upper level of this façade is a row of four-light steel and glass awning windows. Adjacent to this façade are two large two-story filters or bag houses that are of steel construction and rest on concrete pads.

The north façade of this building has a garage bay with an overhead-track steel door. Windows are of eight-light steel and glass design. On the north façade are two conveyors that supply coal to the

building. This façade also has a detached hollow core-tile holding tank and chute that is sited over a spur of the railroad line.

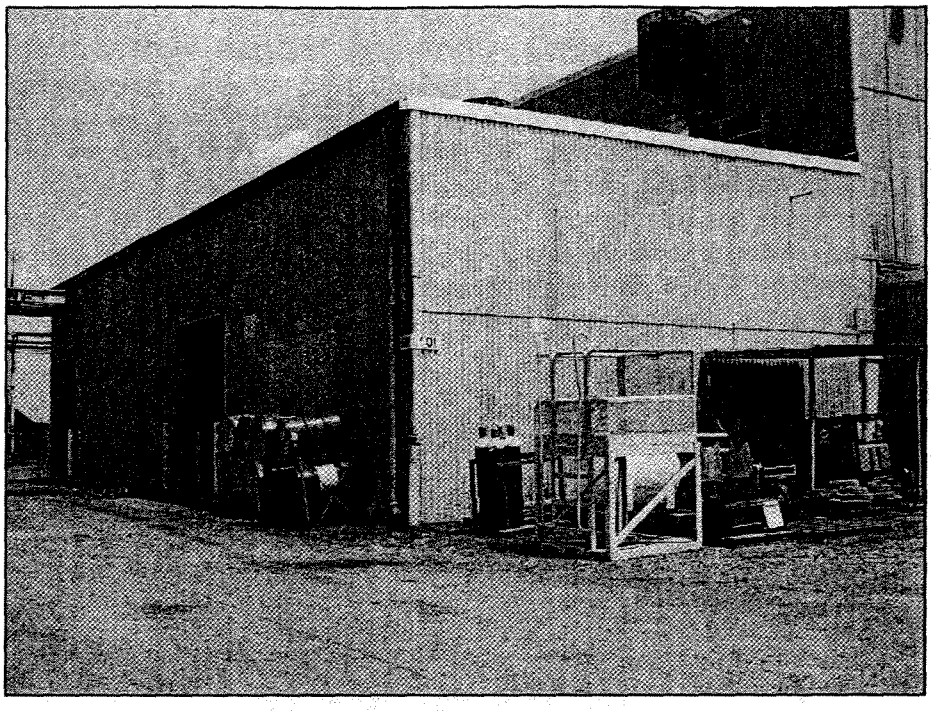


Figure B.108. Building C-601, south and west façades.

Building C-601-C – Steam Plant Fuel Oil Pump House (Survey Number MCN-184)

Building 601-C is a small pump house of steel and transite construction built in 1952. This building has a concrete foundation, a shed roof of transite panels, and exterior walls of transite. On the east façade is an original four-light door of steel and transite panels. This building has no other fenestration.

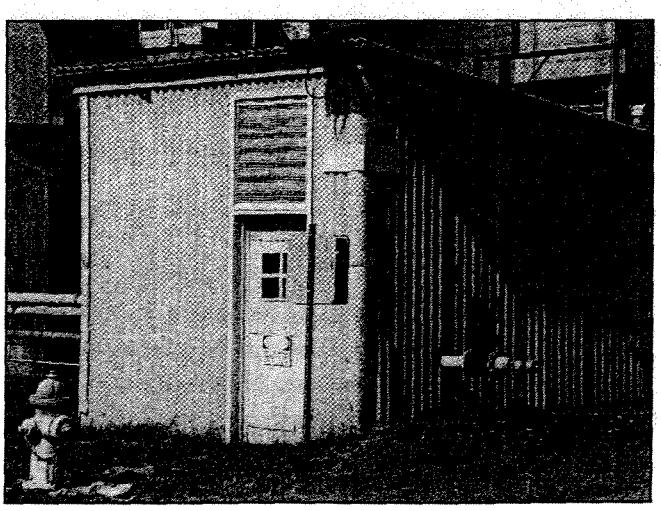


Figure B.109. Building C-601-C, north and east façades.

Building C-604 – Utilities Maintenance Building (Survey Number MCN-189)

Building C-604 is a one-story, prefabricated metal building erected in 1979. The building is located to the south of the steam plant and is used as a maintenance building. It has a concrete foundation a gable roof, and walls of metal panels. On the north façade is a large garage bay with an overhead-track door. Pedestrian entrances have steel and glass doors. Windows are of fixed aluminum design.

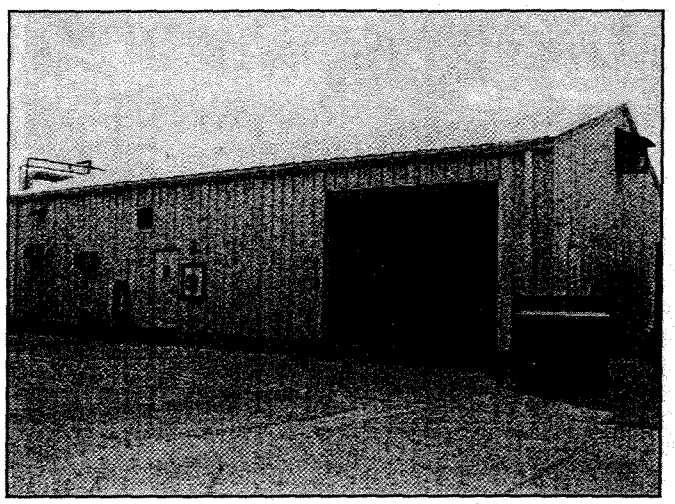


Figure B.110. Building C-604, north and west façades.

Building C-605 – Substation Building (Survey Number MCN-190)

Building C-605 is a one-story prefabricated metal building erected in 1979. The building has a concrete foundation, a gable roof of crimped metal panels, and an exterior of crimped steel panels. On the west façade is a pedestrian entrance with a single-light steel and glass door. A garage bay on this façade has an overhead-track steel door. On the south façade is a single-light glass and wood door.

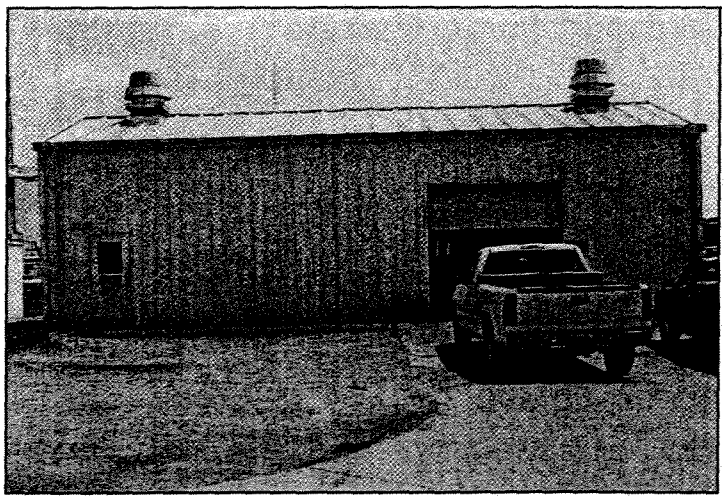


Figure B.111. Building C-605, west façade.

Building C-606 – Coal Crusher Building (Survey Number MCN-191)

C-606 is a two-story metal coal crusher erected in 1980. This building has a poured-concrete foundation and paneled-wood walls. On the north façade on the first floor are paired steel and glass doors that lead to a steel platform and conveyor.

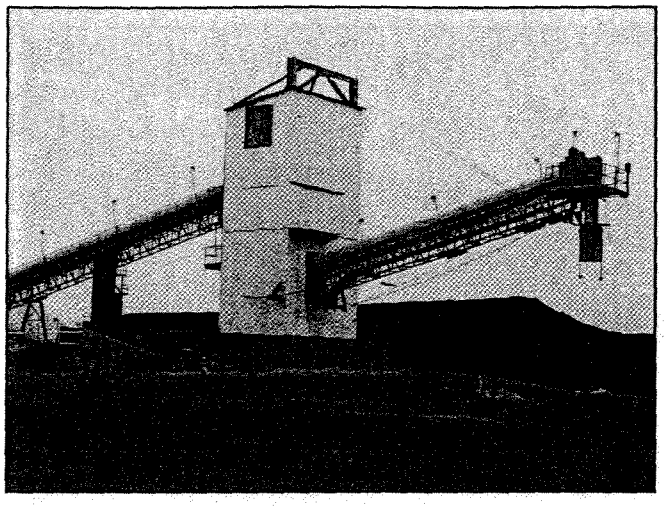


Figure B.112. Building C-606, north and east façades.

Building C-607 – Emergency Air Compressor Generator (Survey Number MCN-192)

Building C-607 is a one-story prefabricated metal building. The building has a poured-concrete foundation, a gable roof of steel panels, and exterior walls of steel panels. On the main (east) façade is a garage-bay entrance with an overhead steel track door. A pedestrian entrance on this façade has a single-light steel and glass door. The west façade of the building has a pedestrian entrance with a steel and glass door.

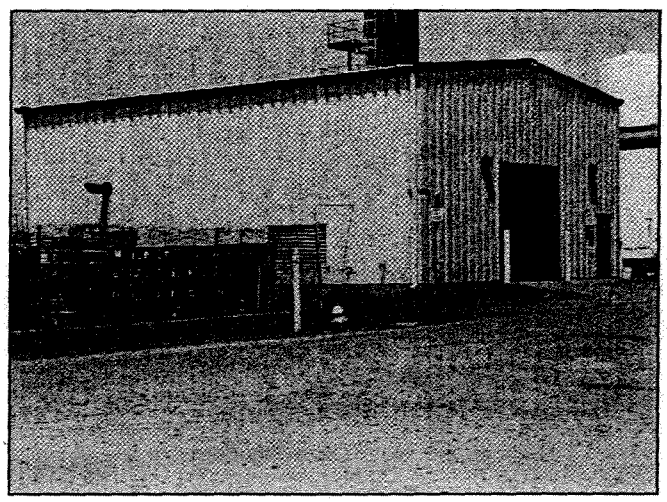


Figure B.113. Building C-607, south and east façades.

Building C-710-A – Gas Cylinder Storage Facility (Survey Number MCN-231)

Building C-710-A is a one-story open-air structure used as a gas cylinder storage facility, adjacent to Building C-710. Built in 1953, the structure has a poured-concrete raised foundation and a gable roof of transite supported by steel posts. The structure has two storage platforms divided by a central concrete wall.

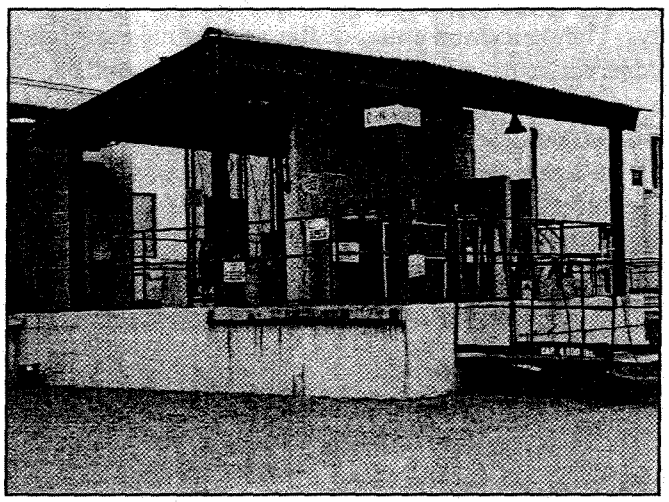


Figure B.114. Building C-710-A, south and east façades.

Building C-711 – Gas Manifold Facility (Survey Number MCN-232)

Building C-711 is a one-story open-air structure used as a gas manifold facility. Built in 1953, the structure has a poured-concrete raised foundation and a gable roof of transite supported by steel posts. The structure has two storage platforms divided by a central concrete wall. This area is also used for storage.

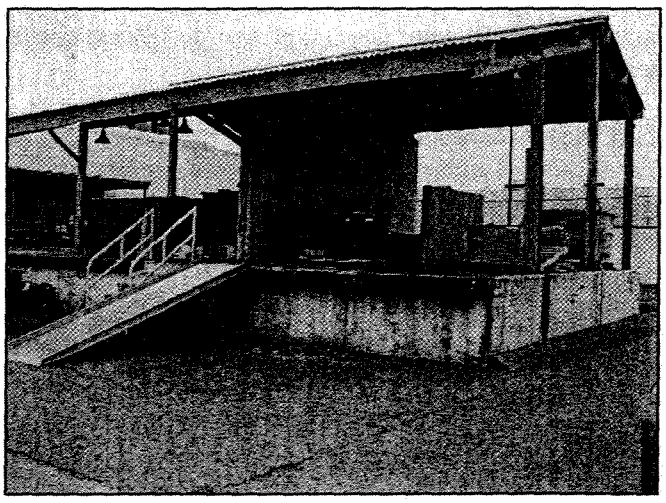


Figure B.115. Building C-711, south and west façades.

Building C-720 – Maintenance and Storage Building (Survey Number MCN-234)

C-720 is a one-story steel and concrete building constructed in 1952. The building has a flat roof of gravel and tar and exterior walls of concrete and steel. The building's south wing is lower than the main section of the building, which contains a mezzanine level. The west façade of the south wing has an exterior of transite panels and multi-light steel and glass windows. Across the width of the façade is a concrete loading dock and a metal flat-roof canopy. The west façade of the main section has a pedestrian entrance and two garage bays. The pedestrian entrance has an original two-light steel and glass door. The garage bays are set within concrete surrounds and have steel roll-up doors. This façade has concrete walls extending approximately seven feet in height with window walls and transite panels above. The windows are of ten-light and 15-light steel and glass design. The ten-light window panels are fixed, while the 15-light windows have hinged six-light panels. Four banks of windows extend across the width of the building separated by steel-belt courses. On the west façade is a one-story concrete-block wing (C-720-E) that has a flat roof of gravel and tar and a pedestrian entrance on the north façade. Just west of the west façade is Building 720-D, a prefabricated metal transformer building erected ca. 1975. This building has a concrete foundation and exterior walls and roof of steel panels. On the south façade is an entrance with a solid-steel door.

The north façade of the building has a garage bay with a roll-up steel door at the northwest corner. The upper façade windows are similar to the west façade. This façade has a large paint shop wing that was added in 1976. This wing has a garage bay on the west façade with a roll-up steel door. The walls of this wing are of corrugated steel panels. The north façade of Building C-720 consists of three overhead roll-up steel doors and four pedestrian doors of steel and glass design.

The east façade has an original projecting wing that has an exterior solid wall of transite panels. This wing has a garage bay with an overhead steel door and two pedestrian entrances with two-light steel and glass doors. Attached to the south façade is a garage bay with a garage entrance. It has a roll-up door and a steel and glass pedestrian entrance. This bay has a flat roof and walls of steel panels.

The south façade of the building has a full-width concrete loading dock. Above this loading dock is a steel flat-roof canopy. This façade has a partial-height concrete wall, above which is a window wall with ten-light and 15-light steel and glass windows. The windows are divided by steel mullions. This façade has five garage bays with overhead steel doors and five pedestrian entrances with steel and glass doors. Above the canopy are transite panels.

Building C-720's east façade consists of a concrete first story and window walls above and transite panels similar to other façades. On the east façade are two garage bays with overhead steel doors. Pedestrian entrances on these façades are single-light steel and glass design. Attached to the east façade is Building C-720-K, an Instrument Shop Addition. This wing is of concrete-block construction and was built in 1979. On the north façade of this wing is an entrance with paired, three-light steel and glass doors. There is no fenestration on the east and south façades of this wing.

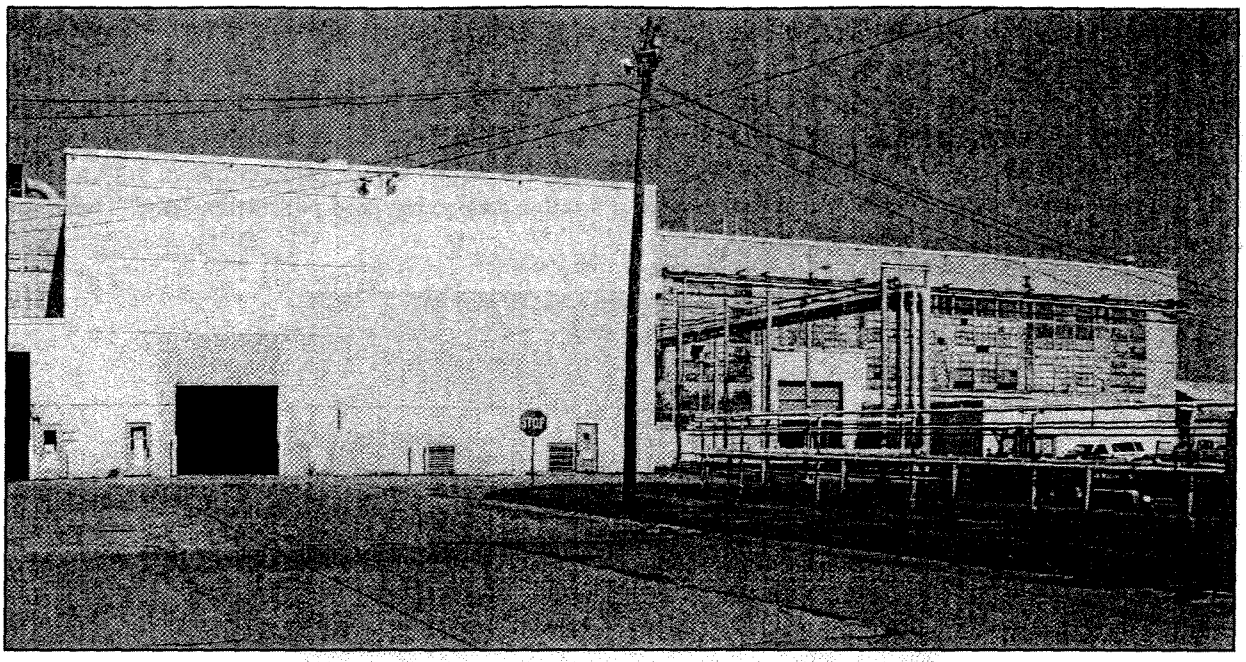


Figure B.116. Building C-720, east façade.

Building C-720-G – Warehouse (Survey Number MCN-235)

C-720-G is a one-story steel, rectangular-plan building erected in 1976. The building has a poured-concrete foundation and a gable roof and exterior walls of steel panels. On the north façade are two garage bays with steel roll-up doors and two pedestrian entrances with single-light steel and glass doors. On the east façade is a pedestrian entrance with a solid-steel door. On the south façade are two garage and pedestrian entrances similar to those on the north façade. On the west façade is a steel and glass, single-light door.

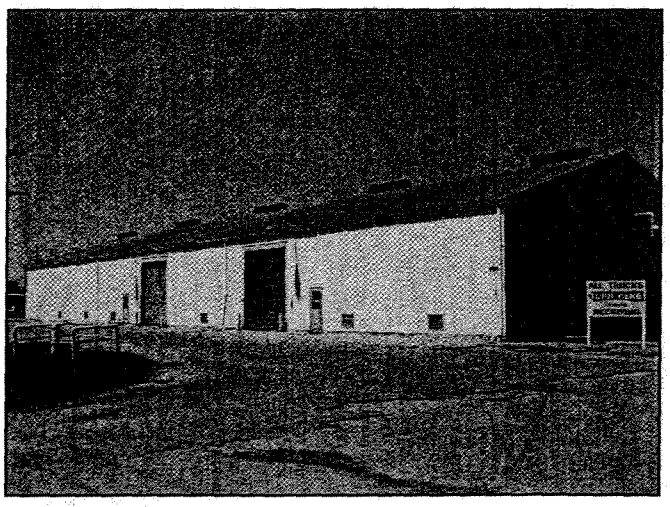


Figure B.117. Building C-720-G, south and east façades.

Building C-720-H – Warehouse (Survey Number MCN-236)

C-720-H is a one-story prefabricated steel building that was erected in 1978. The building has a poured-concrete foundation and roof and exterior walls of steel panels. On the main (north) façade is a garage-bay entrance with an overhead steel door. Flanking this bay is a pedestrian entrance with a single-light steel and glass door. On the east façade is also a similar garage bay and pedestrian door. There is no fenestration on the west and south façades.

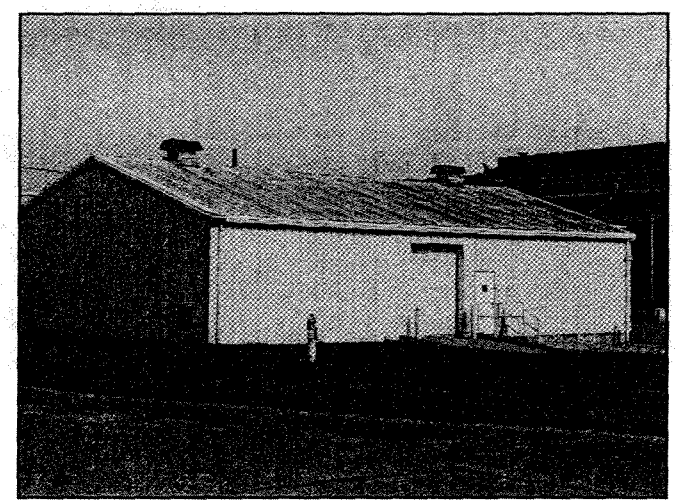


Figure B.118. Building C-720-H, south and east façades.

Building C-721 – Gas Manifold Storage (Survey Number MCN-237)

Building C-721 is a one-story steel building with a concrete foundation and a gable roof of transite panels. Built in 1952, the building has exterior walls of transite. On the main (south) façade is a concrete porch with a shed roof. This façade has two entrances: the west entrance has solid-steel double doors and the east entrance has a two-light glass and steel door. This façade also has eight-light steel and glass windows. On the east façade is a ca. 1980 entrance with double steel doors.

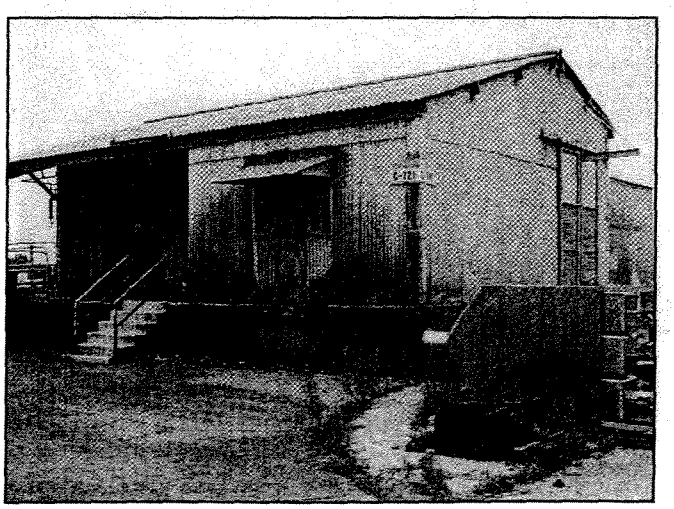


Figure B.119. Building C-721, south and east façades.

Building C-724 – A - Carpenter Shop Annex (Survey Number MCN-238)

This is a one-story concrete-block building built in 1956. The building has a poured-concrete foundation, a flat roof of gravel and tar, and an exterior of concrete-block. On the south façade is a pedestrian entrance and garage bay. The pedestrian entrance has a single-light steel and glass door. The garage bay has a roll-up steel door and a pedestrian door of single-light steel and glass design and a fixed-single light window. The north façade has five bays of 15-light steel and glass windows grouped in sections of three.

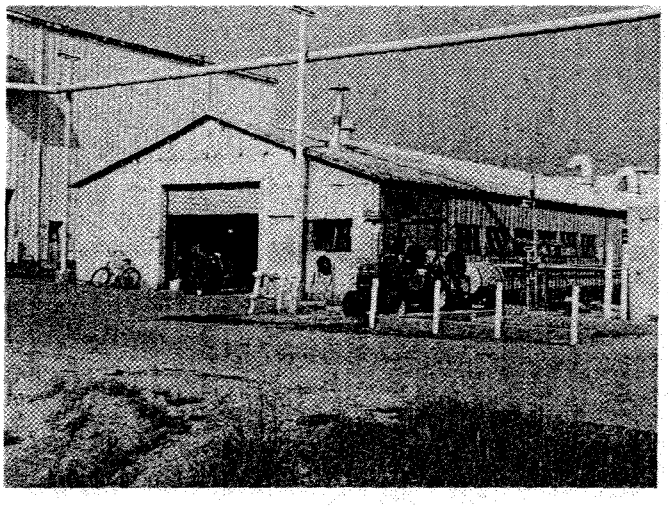


Figure B.120. Building C-724-A, west and north façades.

Building C-724-B – Carpenter Shop (Survey Number MCN-239)

Attached on the east façade is Building C-724-B, which is a one-story steel building, built in 1954. This building has a concrete foundation and gable roof and walls of crimped steel panels. Windows are original six-light hinged design. At the northeast corner of the north bay are paired solid-steel doors. On the east façade is a garage-bay entrance with a roll-up steel door. The south façade of the building also has original six-light steel windows.

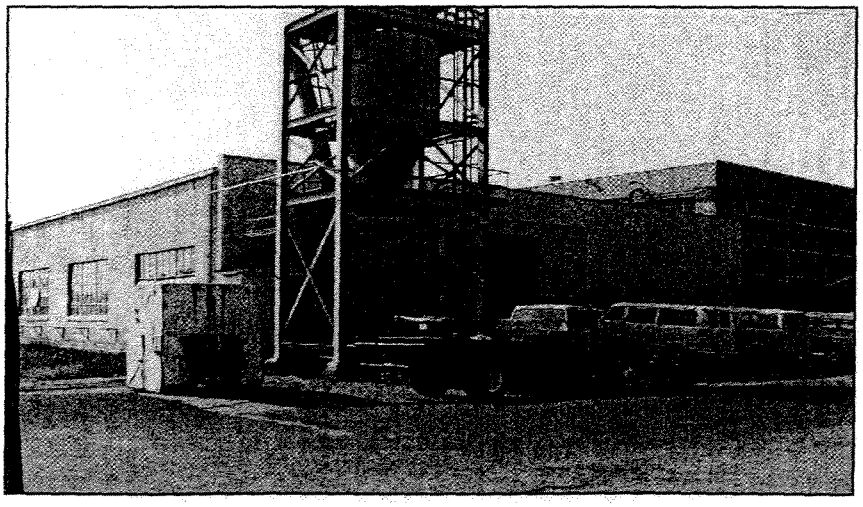


Figure B.121. Building C-724-B, east and north façades.

Building C-724-C – Paint Shop (Survey Number MCN-240)

Building C-725 is a one-story steel building that was constructed in 1954. It has a gable roof of steel panels, an exterior of steel panels, and a concrete foundation. The west façade has a bank of three eight-light steel and glass windows. At the roofline is a circular vent. On the main (north) façade is a garage bay with an overhead steel roll-up door. This façade also has a single-light glass and steel pedestrian door. On the east façade is a bank of three eight-light steel and glass windows. At the rear (south) façade is an open-air steel wing with a metal shed roof.

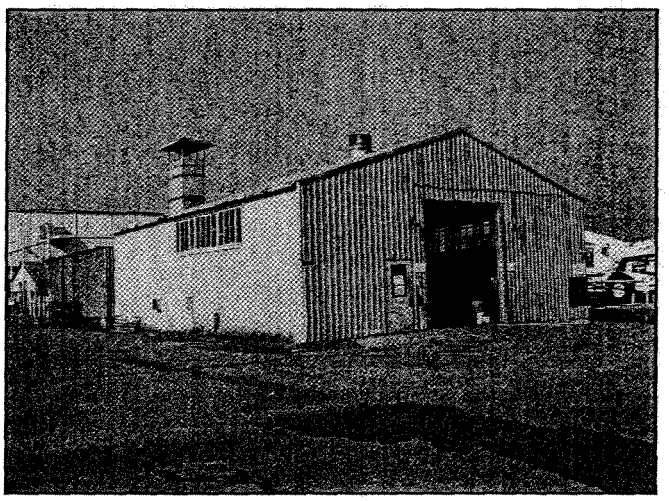


Figure B.122. Building C-724-C, south and east façades.

Building C-724-D – Lumber Storage Building (Survey Number MCN-241)

Building C-724-D is a one-story steel building that was constructed in 1956. This building has a concrete foundation, shed roof of steel panels, and an exterior of steel panels. On the west façade is a garage bay with a roll-up steel door. Attached on the east façade is a four-bay open-air shed for lumber storage. This wing is supported by steel posts and has a concrete foundation. Some bays are enclosed by chain-link fencing.

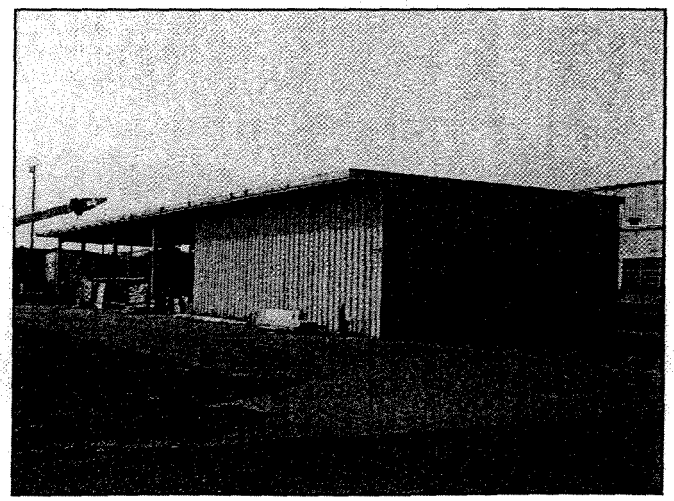


Figure B.123. Building C-724-D, north and west façades.

Building C-726 – Sandblast Building (Survey Number MCN-242)

Building C-726 is a one-story building that was built in 1973 and used to conduct sandblasting operations. The building has a poured-concrete foundation, a gable roof of transite panels, and exterior walls of transite. On the main (south) façade is a shed-roof drive-through bay supported by steel posts. This façade has a large open bay enclosed with hanging felt strips. There is no fenestration on the west façade. On the north façade are large exhaust fans and filters. On the north façade is also a partially enclosed storage wing with transite panels. On the east façade is a projecting storage wing with transite panels. This building is no longer used.

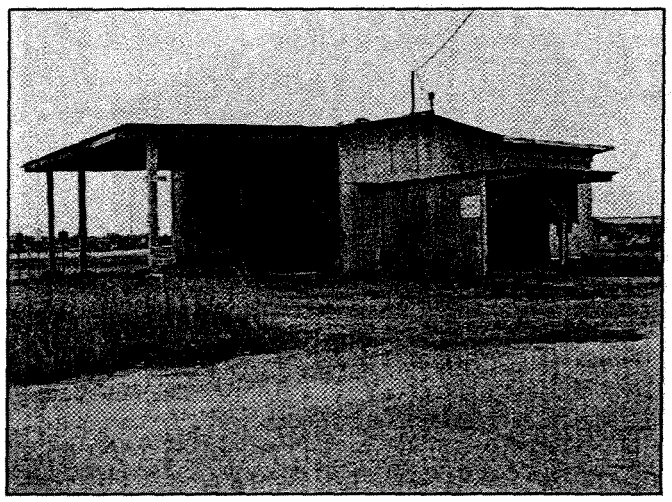


Figure B.124. Building C-726, south and east façades.

Building C-727 – 90-Day Mixed Waste Accumulation (Survey Number MCN-243)

Building C-727 is a one-story steel, prefabricated building that was erected in 1954. This building has a poured-concrete foundation, exterior walls of vertical metal panels, and a gable roof of crimped steel panels. The west section of the building has raised a gable roof section that lacks fenestration. On the main (east) façade is an entrance with hinged steel double doors. Windows are original eight-light steel and glass design with hinged four-light panels. On the north façade are five eight-light windows. On the south façade is a garage bay with paired steel doors. On the west façade are two eight-light steel windows.

Figure B.125. Building C-727, south and east façades.

Building C-728 – Motor Cleaning Facility (Survey Number MCN-244)

Building C-728 is a one-story steel building that was constructed in 1958. It has a concrete foundation, gable roof transite panels, and exterior walls of transite. On the main (north) façade is a garage bay with a roll-up steel door. This façade also has a pedestrian entrance with a solid-steel door. There is no fenestration on the west façade. On the east façade is a solid-steel door and on the south façade is a two-light steel and glass door. This building is in standby.

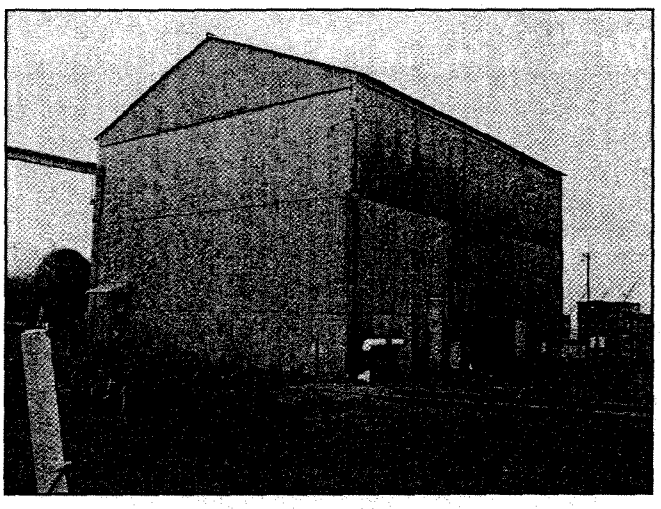


Figure B.126. Building C-728, south and east façades.

Building C-729 – Acetylene Building (Survey Number MCN-245)

Building C-729 is a one-story, rectangular-plan building that was erected in 1956. The building has a poured-concrete foundation, an exterior of transite panels and a shed roof of transite. On the main (west) façade are original paired six-light steel and glass doors. On the south façade, below the roofline, are two metal-louvered vents. On the east façade is an original 20-light steel and glass window. On the north façade are original double doors of six-light steel and glass design. The window bay on this façade has paired 20-light steel and glass windows with inset four-light hinged panels.

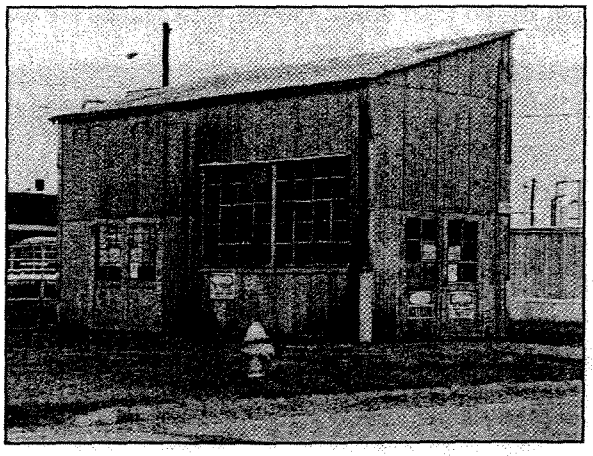


Figure B.127. Building C-729, north and west façades.

Building C-730 – Maintenance Services (Survey Number MCN-246)

Building C-730 is a one-story, concrete-block building that was constructed in 1955. The building has a poured-concrete foundation, a built-up flat roof, and exterior walls of concrete-block. On the main (west) façade is a central bay entrance with ca. 1990 single-light steel and glass doors. Windows on this façade are of 12-light steel and glass design with hinged six-light central panels. On the north façade are two paired, nine-light steel and glass windows that have been altered for the addition of air-conditioning units. On the east façade are similar windows with added air-conditioning units. The east façade has an original entrance with a four-light steel and glass door and flanking; paired eight-light steel and glass windows. All of the windows have concrete sills. Over the entrance on the east façade is a wood and metal canopy.

Figure B.128. Building C-730, south and west façades.

Building C-731 – Railroad Repair Equipment Storage (Survey Number MCN-247)

Built in 1981, this is a one-story metal, prefabricated building composed of two-garage bays. The building has a concrete foundation and walls and a roof of crimped steel. The garage bays have roll-up steel garage doors. On the north façade is a pedestrian entrance with a single-light steel and glass door.

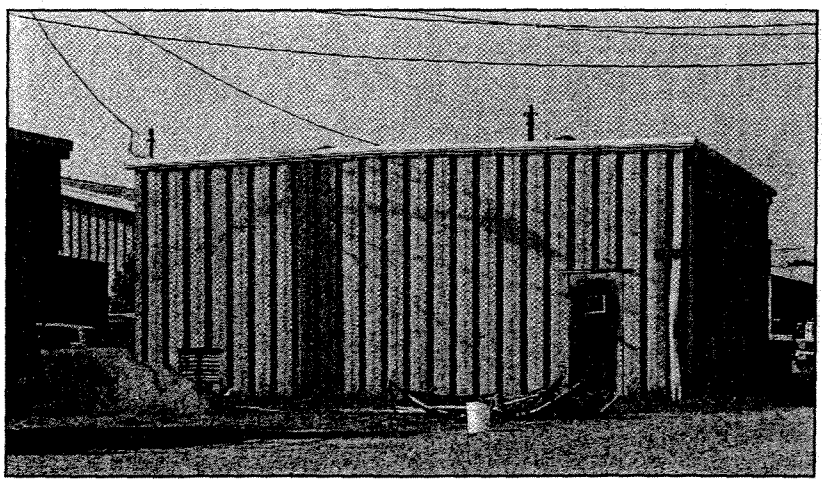


Figure B.129. Building C-731, north and west façades.

Building C-732 – Maintenance Materials Storage (Survey Number MCN-248)

Building C-732 is a one-story, open-air storage building built in 1981 with a concrete foundation, shed roof of metal, and exterior walls composed of poured-concrete and vertical-board panels. The building has an open-bay on the east façade and is presently used to store salt for winter road de-icing.

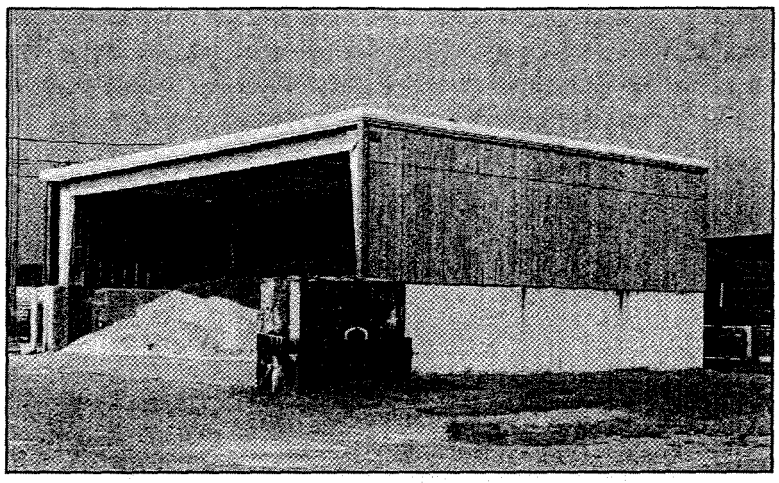


Figure B.130. Building C-732, north and east façades.

Building C-733 - Waste Oil and Chemical Storage Building (Survey Number MCN-249)

This is a one-story steel and metal storage building built in 1985 with a flat roof of corrugated metal, exterior walls of transite, and a concrete foundation. On the rear and west bays are drive-through wings, which are open-air and supported by steel posts. These open-air sections are enclosed by chain-link fencing.

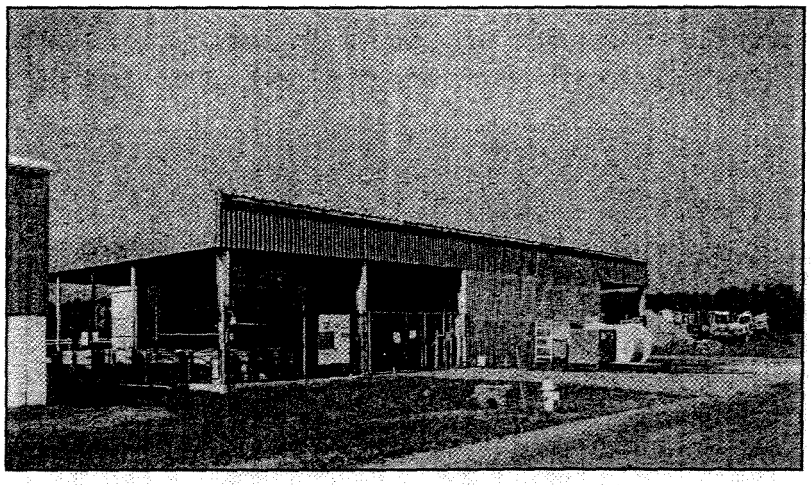


Figure B.131. Building C-733, north and east façades.

Building C-741 – Mobile Equipment Building (Survey Number MCN-251)

Building C-741 is a one-story steel building constructed in 1952 and composed of six vehicular storage bays. The building has a concrete foundation, a shed-metal roof, and exterior walls of steel panels. The east façade of the building is open and has a shed-roof canopy across the width of the façade. The building is supported by steel posts.

Figure B.132. Building C-741, north and east façades.

Building C-742 – Cylinder Storage Building (Survey Number MCN-252)

Building C-742 is a one-story steel and concrete-block building built in 1952. This building is composed of a one-story office and an attached open-air storage wing. The office has walls of concrete-block and a flat metal roof. On the east façade is an original entrance with a two-light steel and glass door. Windows are fixed, and of single-light glass and wood design on the west, north, and east façades. The building rests on a poured-concrete foundation. The west façade is an attached open-air storage shed with a shed roof of transite panels. The shed is supported by steel posts and enclosed with wire mesh fencing. On both the east and west façades are three sets of paired metal-hinged doors that access this storage area.

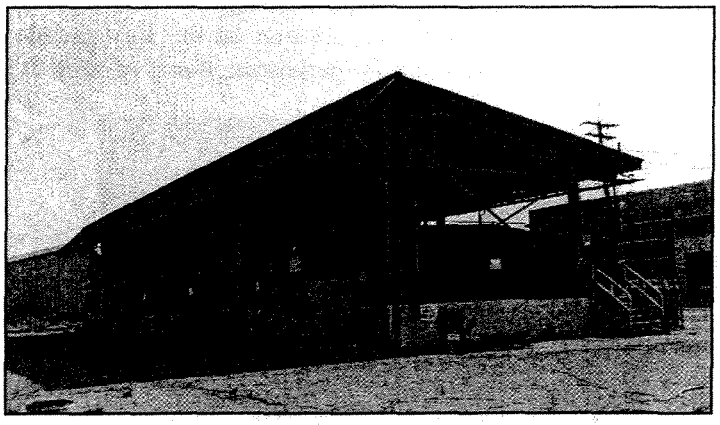


Figure B.133. Building C-742, south and west façades.

Building C-744 – Material Handling (Survey Number MCN-254)

This is a one-story steel and concrete building constructed in 1952. It has a concrete foundation, metal roof and an exterior of concrete and steel panels. The west façade is of poured-concrete and lacks fenestration. On the north façade, the walls are of steel panels and this façade has a pedestrian entrance and two garage bays. The pedestrian entrance has an original two-light steel and glass door. The garage bays have overhead, roll-up steel doors. The east façade is made of concrete with three small windows containing air-conditioning units. The south façade is made of concrete and it has a pedestrian entrance and two garage bays similar to the north façade. This façade also has a concrete loading dock that is accessed by a concrete ramp at the southeast corner of the building. Over the loading dock is a flat-roof steel canopy.

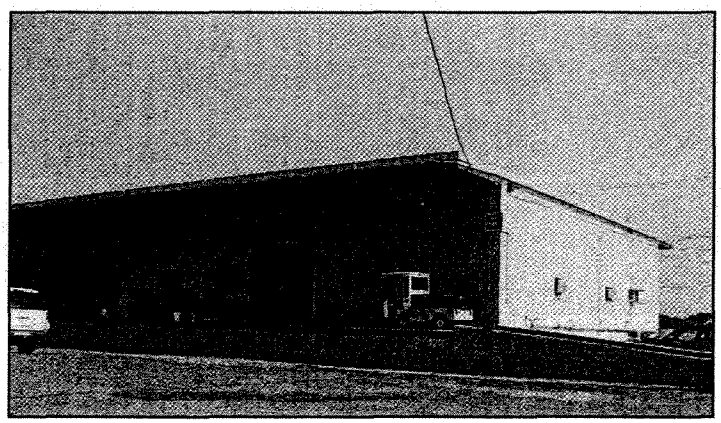


Figure B.134. Building C-744, south and east façades.

Building C-746-A – North Warehouse (Survey Number MCN-255)

Building C-746-A is a one-story prefabricated metal building erected in 1954. The building has a concrete foundation, a gable roof of steel panels, and exterior walls of steel panels. The building has three attached sections with gable roofs. On the east façade, the central section has an overhead steel-track garage-bay door. Adjacent to this entrance is a three-light steel and glass pedestrian door. The flanking two sections of this building have three-light steel and glass doors on the east façade. The south two sections also have a roof addition of steel panels and this addition has a gable roof. The south façade has several bays with sliding-track doors. There is no fenestration on the west façade. The north façade has six garage bays with overhead steel-track doors and six pedestrian doors of solid steel.

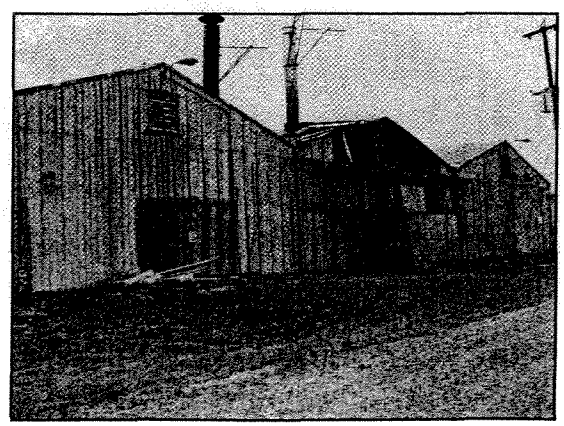


Figure B.135. Building C-746-A, west façade.

Building C-746-B – South Warehouse (Survey Number MCN-256)

Building C-746-B is a prefabricated metal building erected in 1959 with a concrete foundation, a gable roof of crimped steel, and exterior walls of steel panels. Except for louvered vents, there is no fenestration on the east façade. On the south façade are six garage bays with overhead-track steel doors. Adjacent to these doors are solid-steel pedestrian doors. The west façade lacks fenestration except for exhaust fans in the gable fields. There is no fenestration on the north façade.

Figure B.136. Building C-746-B, south and west façades.

Building C-746-G (Survey Number MCN-257)

This is a one-story prefabricated steel building erected in 1974. It has a poured-concrete foundation, a gable roof of crimped steel, and exterior walls of steel panels. On the east façade is a garage bay with an overhead-track steel door. On the west façade is a similar garage-bay entrance and a pedestrian entrance with a single-light steel and glass door. There is no fenestration on the north and south façades.

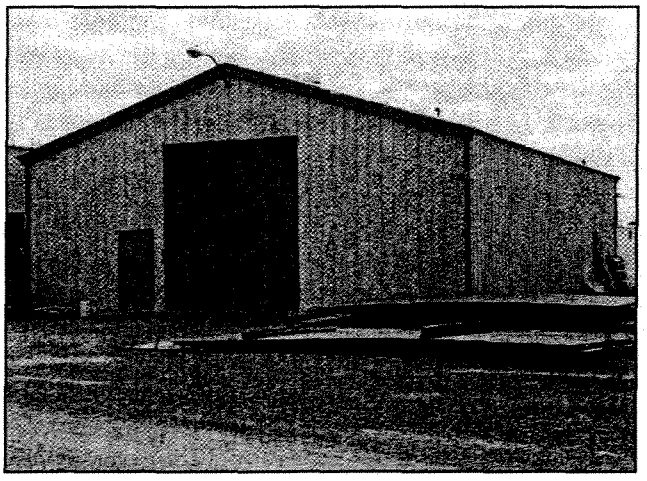


Figure B.137. Building C-746-G, south and west façades.

Building C-746-Q and C-746-Q1 – Hazardous and Low-Level Waste Storage and High-Assay Waste Storage Buildings (Survey Number MCN-260)

These buildings are similar one-story prefabricated metal buildings erected in 1965. They have concrete foundations, gable roofs of steel panels, and exterior walls of vertical steel panels. On the west façade is a garage-bay entrance with an overhead-track steel door. Also on this façade is a pedestrian entrance with a steel and glass door. On the north façade is a garage bay with an overhead-track door and two pedestrian entrances with single-light steel and glass doors. This façade also has a series of louvered vent openings. On the east façade are two garage bays with overhead-track doors and two single-light steel and glass pedestrian doors. On the south façade is a garage bay with an overhead-track door. This façade also has a series of louvered vents.

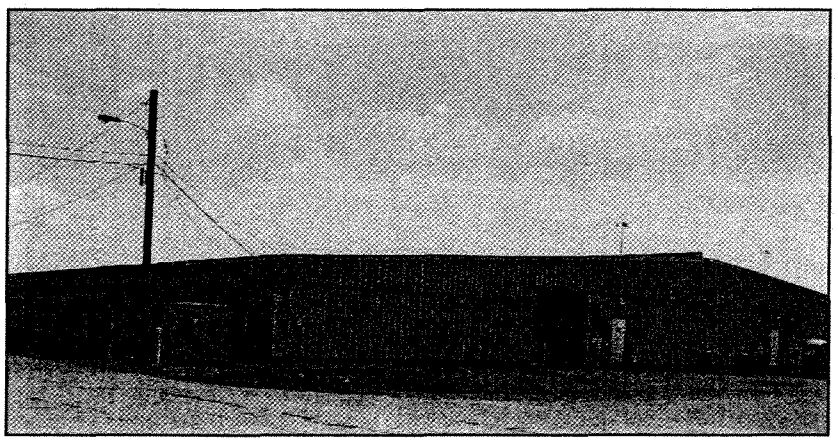


Figure B.138. Building C-746-Q, north and west façades.

Building C-750 – Garage (Survey Number MCN-262)

Building C-750 is a one-story garage built in 1952. The building has a poured-concrete foundation, exterior walls of concrete and transite panels, and a built-up roof of crimped metal. The building is composed of a large garage facility with a three-bay concrete wing on the west façade. The concrete wing has three drive-through bays with each bay having an overhead steel door. This concrete wing lacks fenestration on the west façade and is attached to the main garage on its east façade. The main garage has a large bay on the north façade. This bay has a sliding-track metal door. Windows are original fixed 24-light steel and glass design.

The upper façade of this building is composed of transite panels and there is no fenestration on the upper area of the north façade. The west façade of the building is composed of a large window wall on the lower level divided by the concrete wing. This window wall has eight rows of continuous rectangular steel and glass windows, some fixed, while others are open in hopper fashion. The upper façade has a continuous window wall of five rows, and these windows are fixed with nine two-light panels that open in an awning design. On the east façade of the building is a continuous window wall with eight rows of windows. These windows are fixed with some hopper-design windows on the lower row. On the north façade of this wing is an original two-light steel and pedestrian door. On the east façade of the building is also a 15-light steel and glass window with a metal awning. A pedestrian entrance on this façade has a two-light steel and glass door flanked by paired, two-light steel and glass windows.

On the south façade of the building is a large garage bay in the central section. This entrance has sliding-track steel and glass doors. The east concrete wing has a pedestrian door of single-light steel and glass design and a nine-light steel and glass window. Flanking the garage bay on this façade are 24-light steel and glass doors. The west concrete wing has three garage bays with overhead-track steel doors.

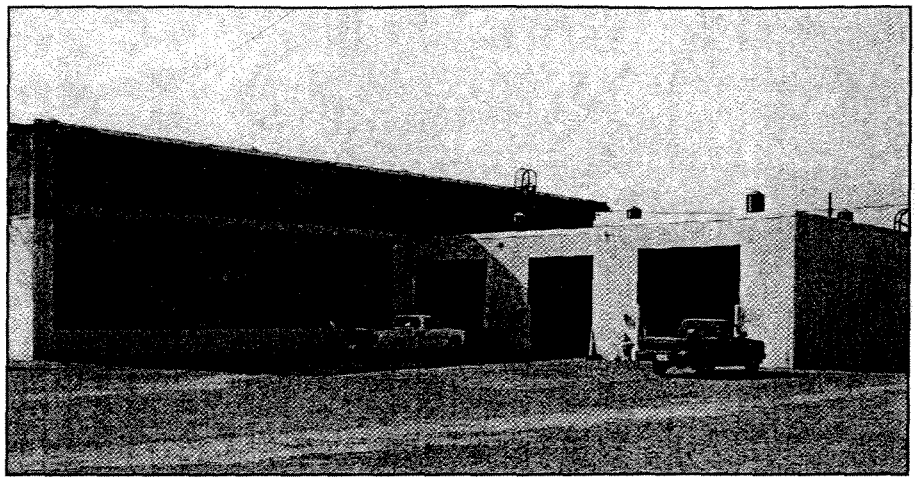


Figure B.139. Building C-750, north and west façades.

Building C-751 – Fuel Dispensing Facility (Survey Number MCN-263)

Building C-751 is a one-story prefabricated steel building erected in 1991. The building has a poured-concrete foundation and a flat roof and exterior of steel panels. On the main (south) façade is a steel and glass single-light door. On the west façade is a two-light steel fixed window.

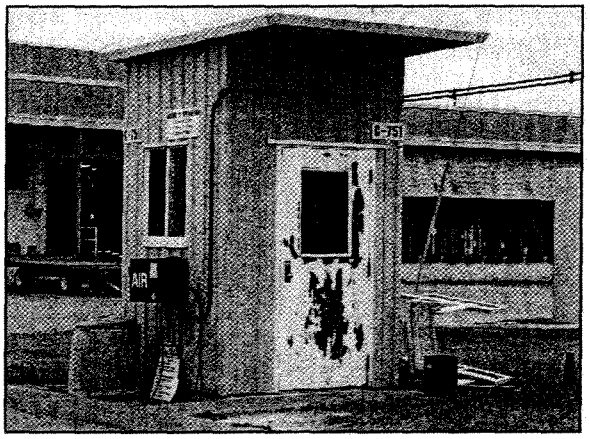


Figure B.140. Building C-751, south and west façades.

APPENDIX C

KENTUCKY HISTORIC RESOURCES INDIVIDUAL SURVEY FORMS, MCN-95 THROUGH MCN-263

~~OFFICIAL USE ONLY~~ NR 7/12/17

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-95
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-100 Administration Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /

12. CONSTRUCTION DATE: 2 / 1953 estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 67516 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
S / poured concrete replacement

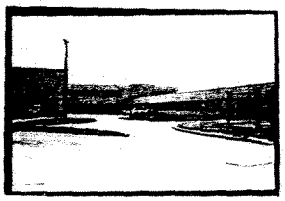
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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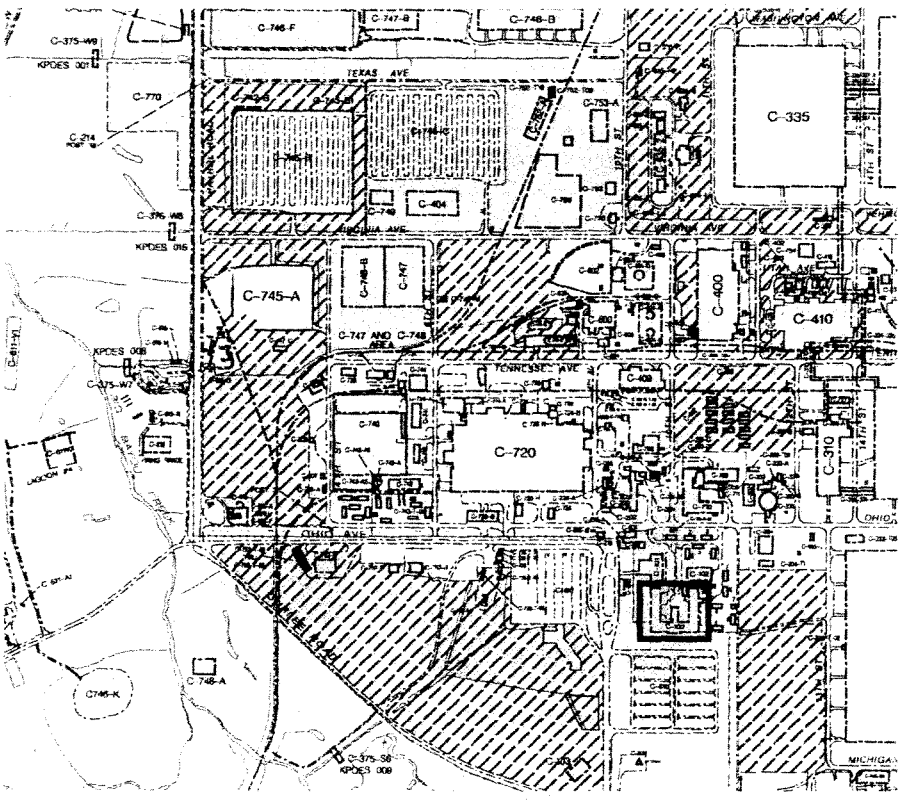
7-12-12

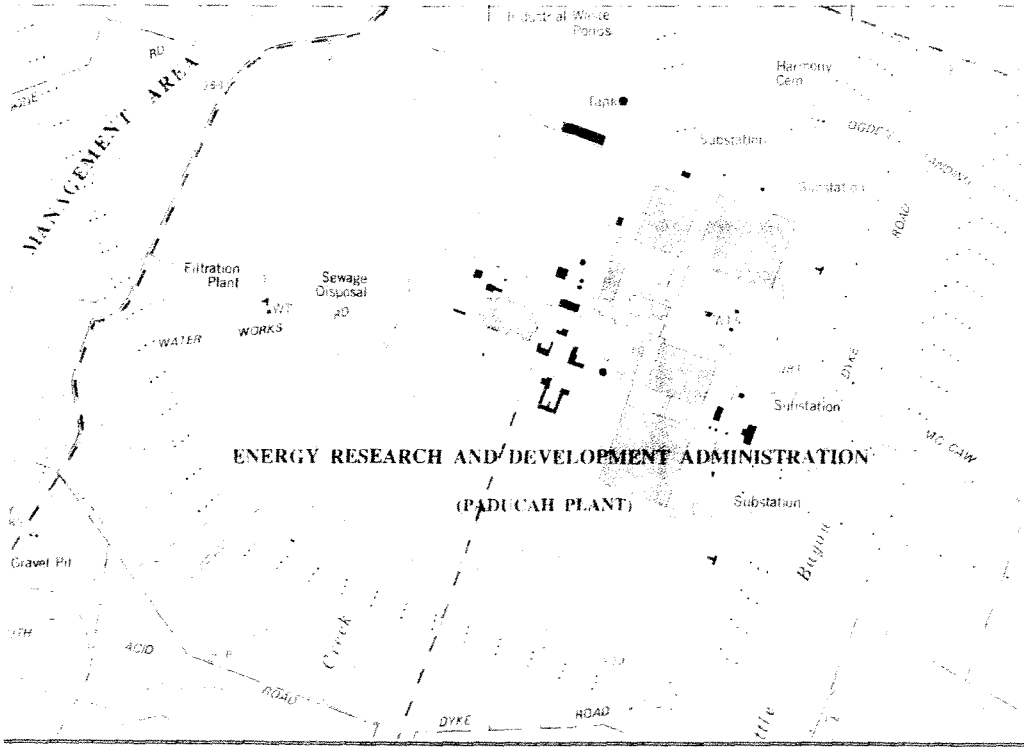
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

C-100 is a W-shaped office building built in 1953. The main section is two-stories and has two, one-story wings which forms a "U". A two-story wing also projects at the rear of the building between these two wings to form a "W" shape. This wing contains a reinforced concrete vault. The building has a flat roof of gravel and tar, a poured concrete foundation and an exterior of smooth concrete. The concrete walls are scored in rectangular patterns. Windows throughout the building are fixed, single-light, steel and glass design. Some windows are grouped together in sections of four each. Entrances have single-light glass and steel doors and solid steel doors. The main (south) façade has an entrance with a single-light glass and wood door. Turnstiles have been added at this entrance. Windows on this façade are fixed, single-light design grouped in sections of three or four on both facades.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-96
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-101 Cafeteria Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 18326 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete original
S / smooth poured concrete replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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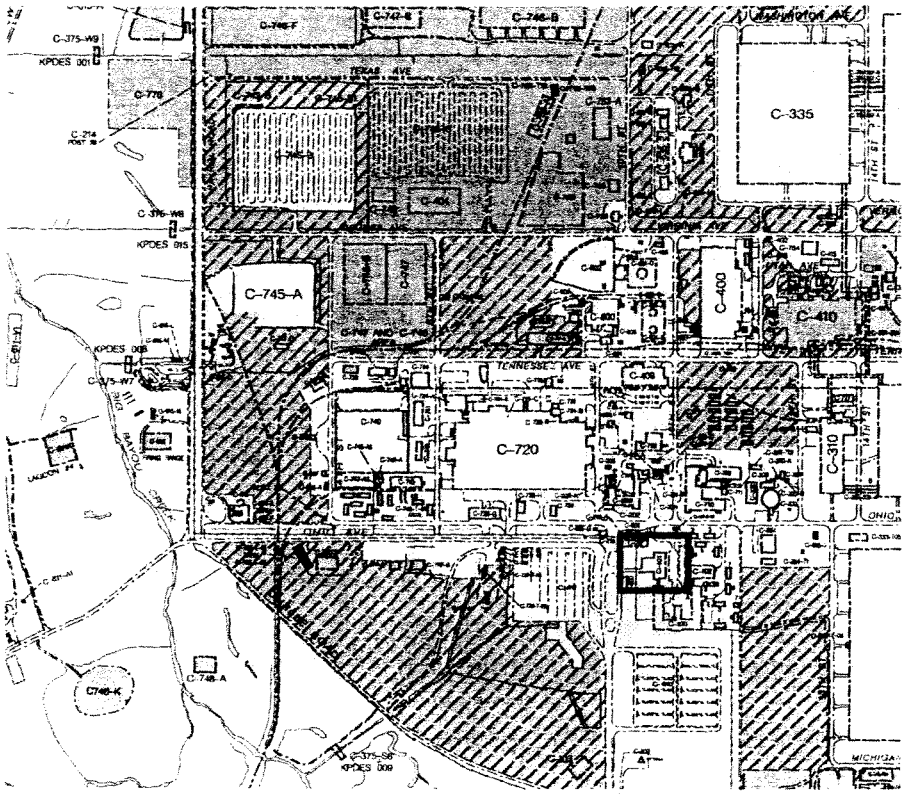
7-12-7

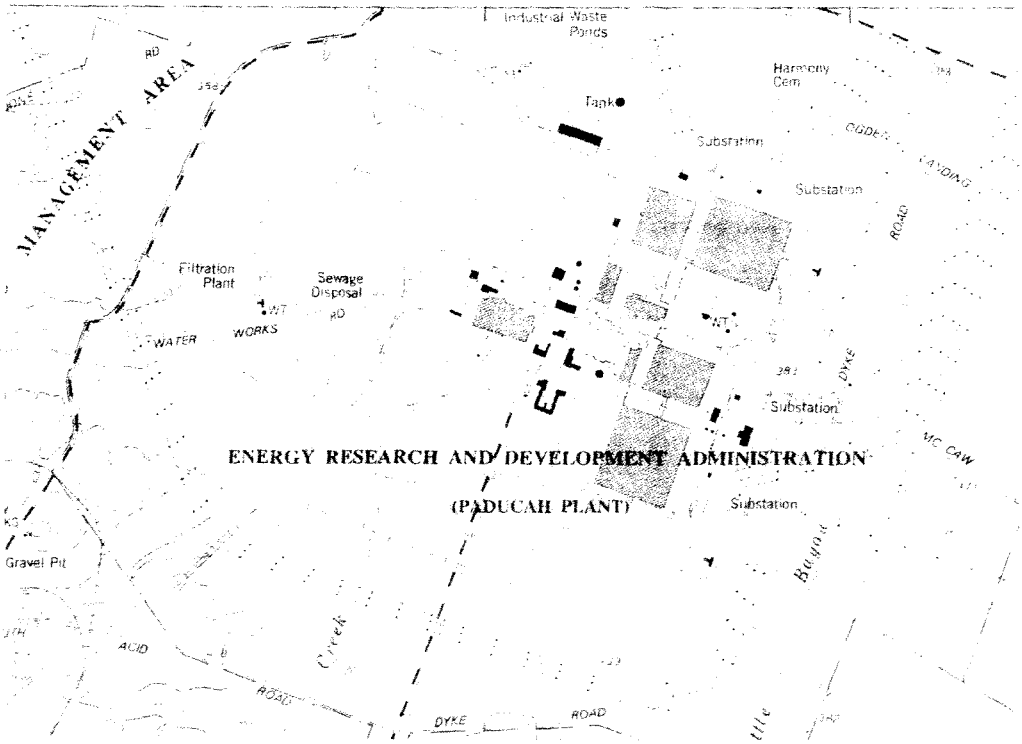
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

The Cafeteria was built in 1953 to serve as the main dining hall facility for the plant. The building has a poured concrete foundation, an exterior of smooth concrete walls and a flat roof of gravel and tar. On the main (north) façade is a recessed entry bay. The entrance has paired, single-light, steel and glass doors. The bay next to the entrance has large picture windows. The building has windows of three-light horizontal design with the top two panels hinging in an awning design. The exterior walls of the building are scored in rectangular patterns. On the west façade are five window bays, a garage bay and a loading dock. On the east façade is a window bank of fixed single-light steel and glass windows. At the rear, a one-story wing connects the building with **Building C-100**.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-97
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-102 Hospital

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 11666 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete scored with rectangular panels original
S / poured concrete scored with rectangular panels replacement

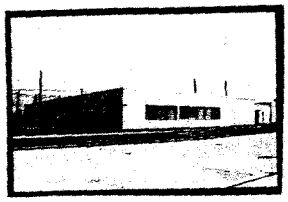
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

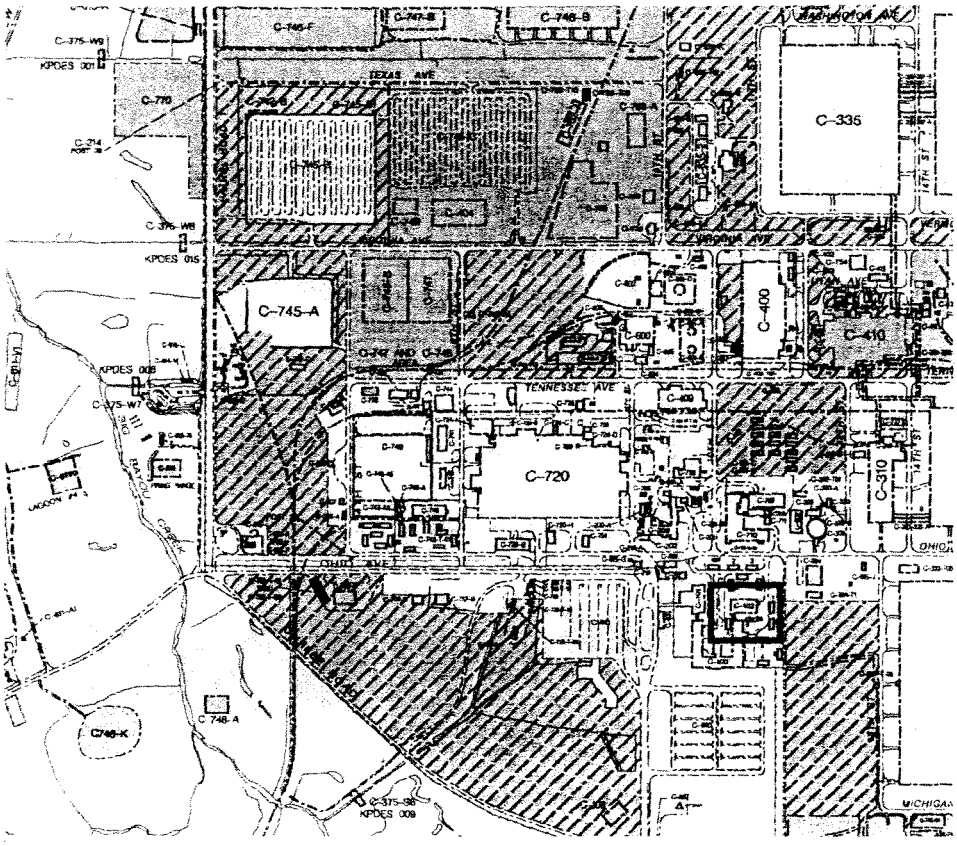
~~OFFICIAL USE ONLY~~

TH
7/20/12

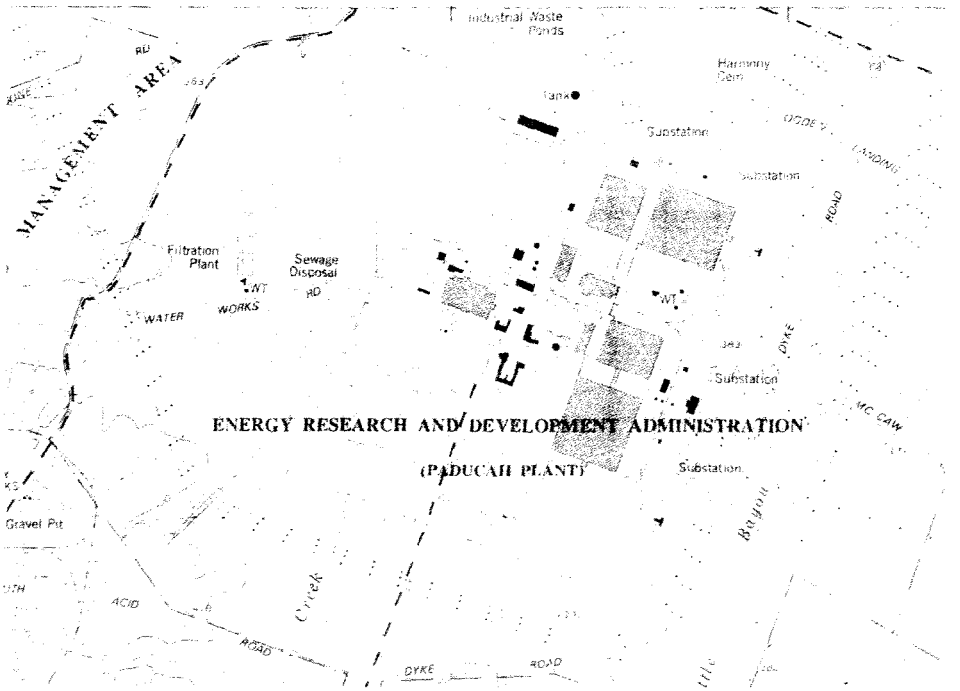
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY

TH 7-12-12

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The hospital (C-102) was built in 1953 to provide medical facilities for workers at the plant. The building was originally detached but is now connected via an addition with **Building C-100** on the south facade. The one-story building has a flat roof of gravel and tar, a poured concrete foundation and an exterior of concrete scored into rectangular panels. On the main (east) façade is an entrance with a flat roof metal canopy and steel posts. This entrance has original double doors of two-light, steel and glass design. In the south bay of this façade is an entrance with a single-light, glass and wood door. Windows are fixed, single-light glass and wood design and are grouped in sections of two, three and four on the south, east and north facades.

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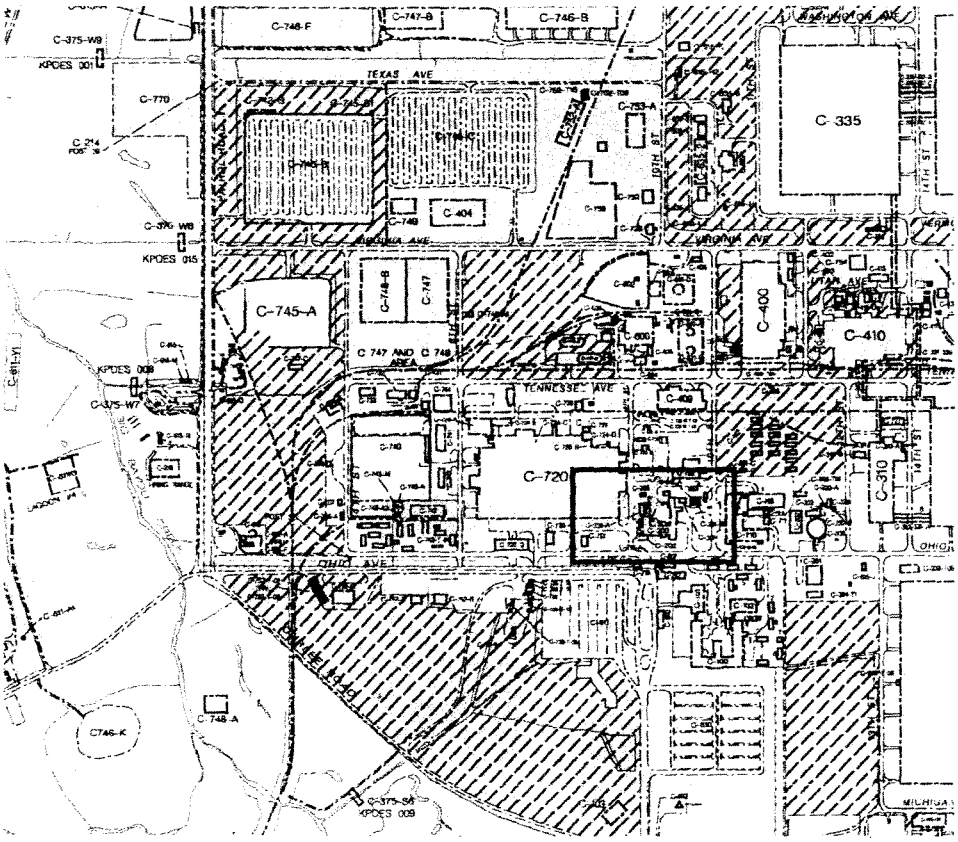
7-12-12

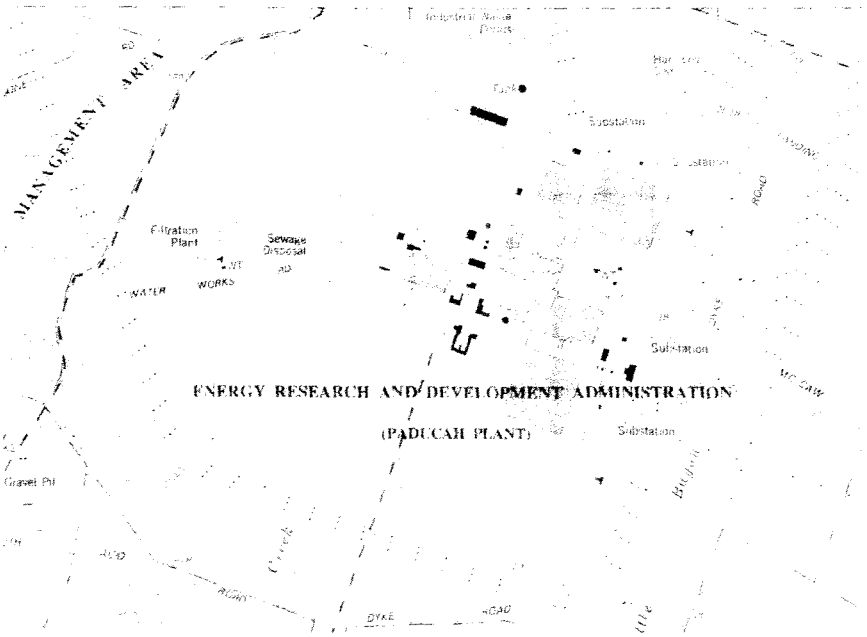
25. SUPPORT RESOURCES:

SITE PLAN KEY	FUNCTION	CONSTRUCTION DATE	METHODMATERIAL
Building C-200-A	Emergency Vehicle Shelter	1979	
Building C-201	Restricted Information	1979	concrete; steel; concrete block
Building C-202	Guard Training Building	1986	concrete block
Building C-203	Restricted Information	1979	
Building C-204	Restricted Information	1965	

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-98
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-200 Guard and Fire Headquarter Complex
(includes C-201, C-202, C-203 and C-204)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / 1953 estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
2 / wing addition
1 / wing additions

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
P / 1 / concrete block subsequent

15. DIMENSIONS: 19490 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / "U" shaped first
___/ _____ second
___/ _____ third

17. STYLISTIC INFLUENCE:
___/ _____ ; ___/ _____ first
___/ _____ ; ___/ _____ second
___/ _____ ; ___/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL	
2	/ continuous	R	/ poured concrete original
2	/ continuous	R	/ poured concrete replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete with rectangular pattern original
S / poured concrete with rectangular pattern replacement

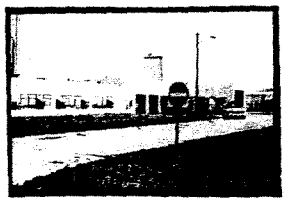
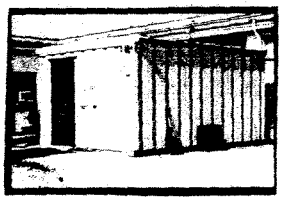
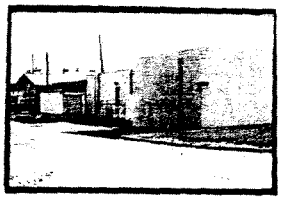
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING	
Q	/ flat	6	/ built-up original
Q	/ flat	6	/ built-up replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.


COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Security Facilities include the guard posts or portals which provide access into the plant and the Guard and Fire Headquarters (Building C-200). Some of the original portal buildings have been replaced by later structures and new portal buildings have also been erected in recent years due to heightened security threats. Original portal buildings include Post 37 (Building C-216) and Post 43 (Building C-217).

Building C-200 was constructed in 1953 to serve as the plant's police and fire station. This is a one-story, U-shaped building which has a flat roof of gravel and tar, a concrete foundation and an exterior of concrete walls scored in rectangular patterns. The main (south) façade has an entrance with a single-light, steel and glass door and flanking steel and glass sidelights and a four-light transom. At this entrance is an original flat roof wood and metal canopy supported by concrete columns. There are two secondary entrances on this façade which have single-light steel and glass doors and a single-light sidelight. Windows on this façade are three-light steel and glass design and grouped together in sections of four.

Building C-200 was enlarged several times with added wings from the 1960s to the 1980s. At the southwest and west facades of the original building is a one-story wing built in 1986 (Building C-202). This building was designed by architects Lockwood-Greene to serve as a Guard Training Building. This building is of concrete block construction with solid steel doors on the east and south facades.

At the northwest corner of the building is C-200-A which was added in 1979 as an Emergency Vehicle Shelter.

On the east façade is a wing containing six drive-thru bays for fire engines and other vehicles. Each bay is divided by a concrete pier and the bays have overhead track steel doors. The north bay is of concrete block construction. On the north façade are entrances with single-light, steel and glass doors and similar windows. On the east façade of the west wing is an open-air garage with a flat metal roof supported by steel posts. The west façade of the east wing has a four-story tower which contains a water tank. The west façade of the west wing lacks fenestration except for a solid steel door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-99
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-205 Respirator Issue Facility

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / 1998 estimated
1 / 9 / 9 / 8 / 1998 documented

13. DATE OF MAJOR MODIFICATIONS:
____/ ____
____/ ____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 3600 ft²
Height 1 story Width ____ Depth ____

16. PLAN:
____/ ____ first
____/ ____ second
____/ ____ third

17. STYLISTIC INFLUENCE:
____/ ____ ; ____/ ____ first
____/ ____ ; ____/ ____ second
____/ ____ ; ____/ ____ third

STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

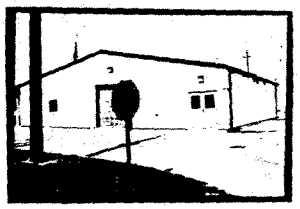
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
A	/ side gable	7	/ standing metal seam	original
A	/ side gable	7	/ standing metal seam	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: ____/ ____/ ____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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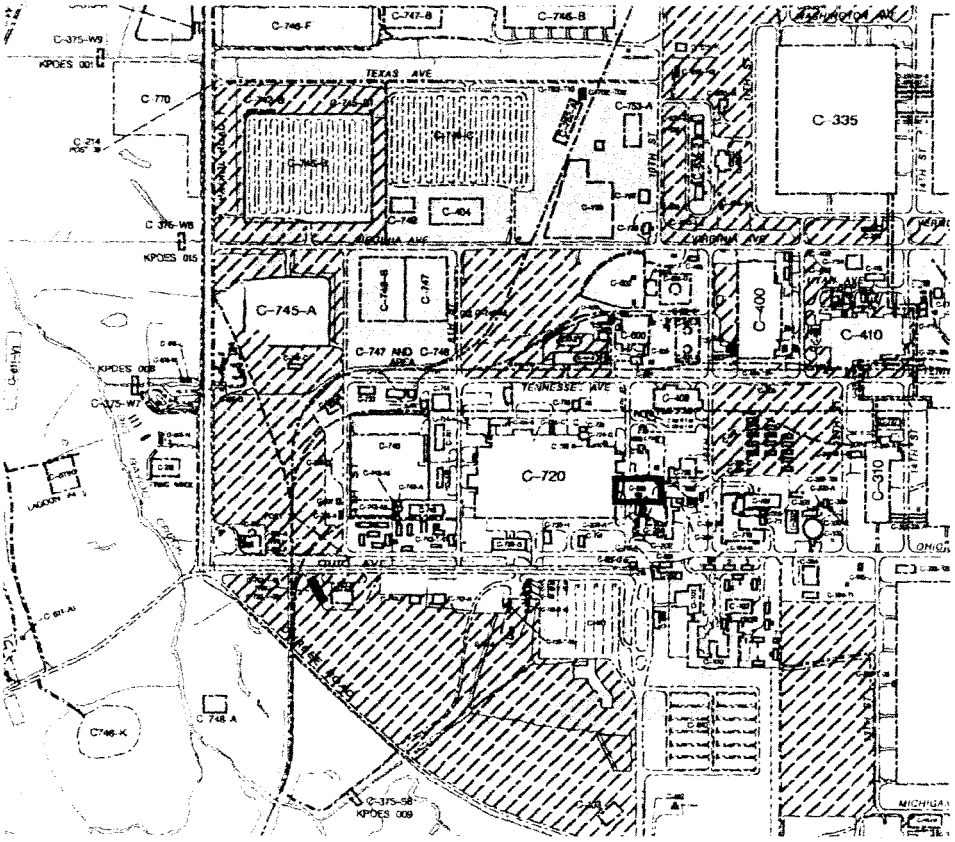
7-12-12

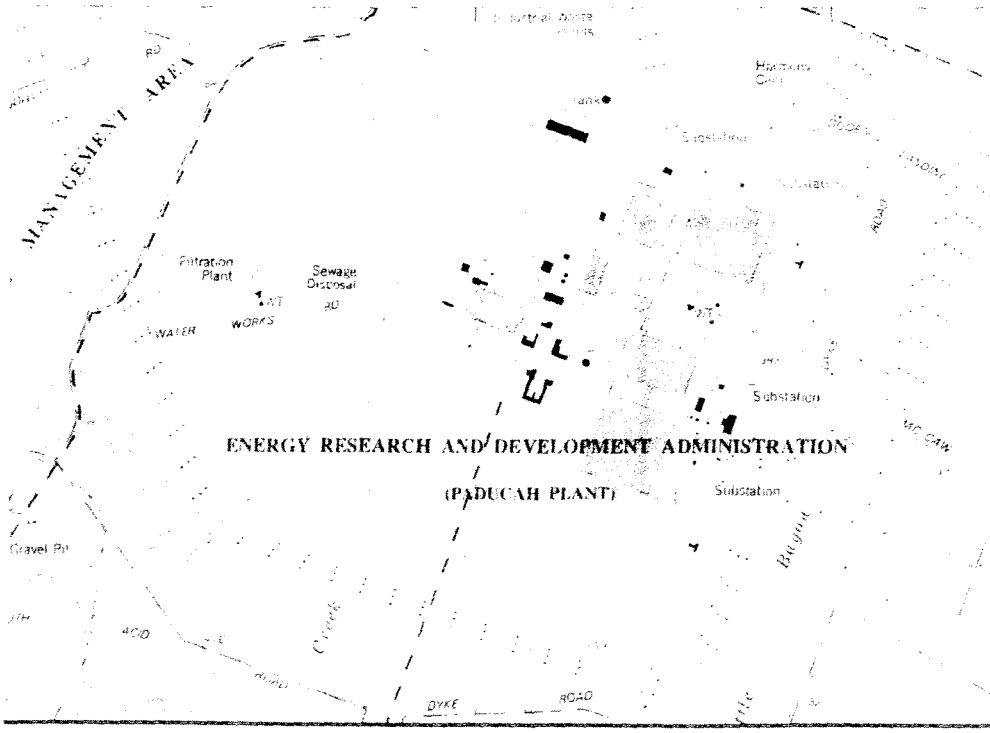
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Security Facilities include the guard posts or portals which provide access into the plant and the Guard and Fire Headquarters (Building C-200). Some of the original portal buildings have been replaced by later structures and new portal buildings have also been erected in recent years due to heightened security threats. Original portal buildings include Post 37 (Building C-216) and Post 43 (Building C-217).

Building C-205 is a one-story prefabricated metal building. The building has a poured concrete foundation, gable roof of crimped metal and an exterior of vertical steel panels. On the east façade is a pedestrian door with paired single-light steel doors and a garage bay with a steel roll-up door. There is one window on this façade which is single-light, fixed metal design. The main (W) façade has two pedestrian entrances with single-light steel and glass doors. The two window bays on this façade have fixed single-light metal and glass windows. The pedestrian entrances are accessed by concrete and steel stairs.

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7-12-12

KENTUCKY HISTORIC RES...
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # [illegible]
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-207 Fire Training Facility

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / 1993 estimated
1 / 9 / 9 / 3 / 1993 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 900 ft²
Height 3 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

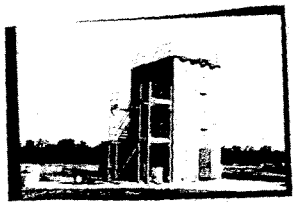
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel panels	original
Q / flat	8 / steel panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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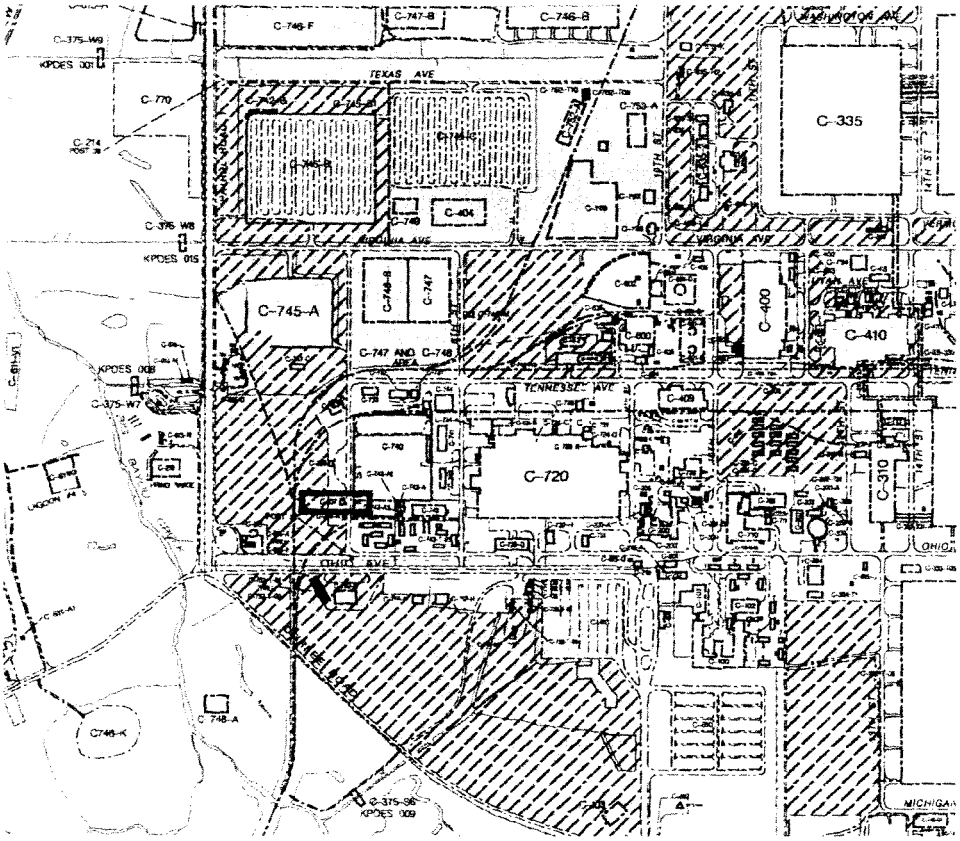
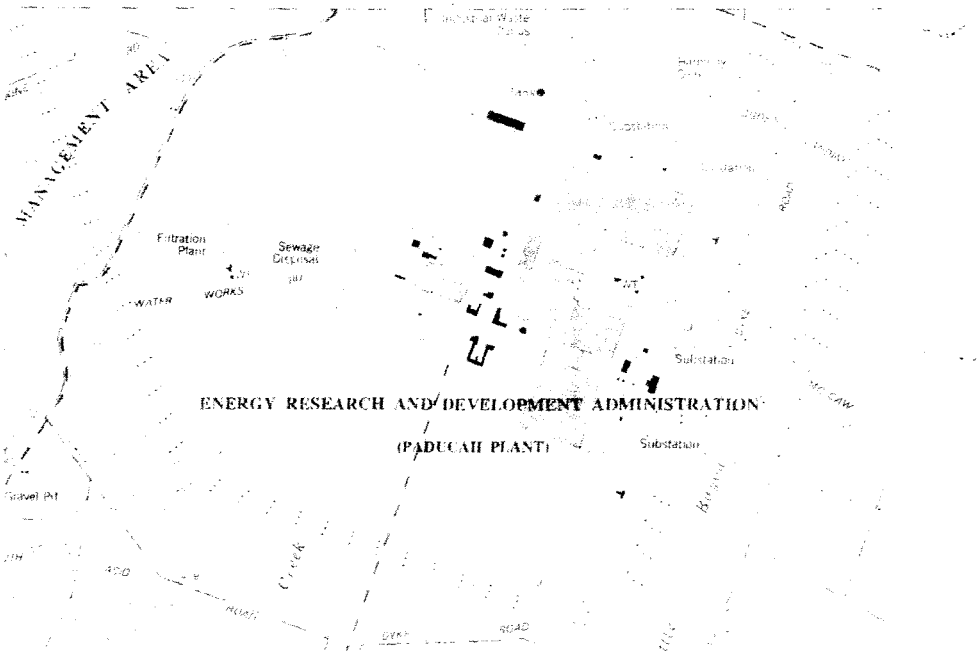
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Security Facilities include the guard posts or portals which provide access into the plant and the Guard and Fire Headquarters (Building C-200). Some of the original portal buildings have been replaced by later structures and new portal buildings have also been erected in recent years due to heightened security threats. Original portal buildings include Post 37 (Building C-216) and Post 43 (Building C-217).

Building C-207 is a three-story, steel frame building built in 1993, Fire Training Facility. The building has a poured concrete foundation, a steel, flat roof and an exterior of steel panels. On the south façade is a two-story, steel staircase. On the main (east) façade is an entrance on the first floor with a solid steel door. Window openings are covered with metal shutters. At the roofline is a steel railing. On the west façade is a one-story wing. On the west façade of this wing is a solid steel door. On the south façade of the building is also a solid steel door.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-101
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-212 Office Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

HER DOCUMENTATION/RECOGNITION:

_____ Survey	_____ HABS/HAER
_____ KY Land	_____ Local Land
_____ NR	_____ NHL

Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /

12. CONSTRUCTION DATE: 2 / 1953 estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS:3471 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

TYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

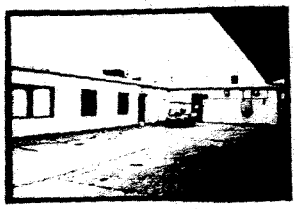
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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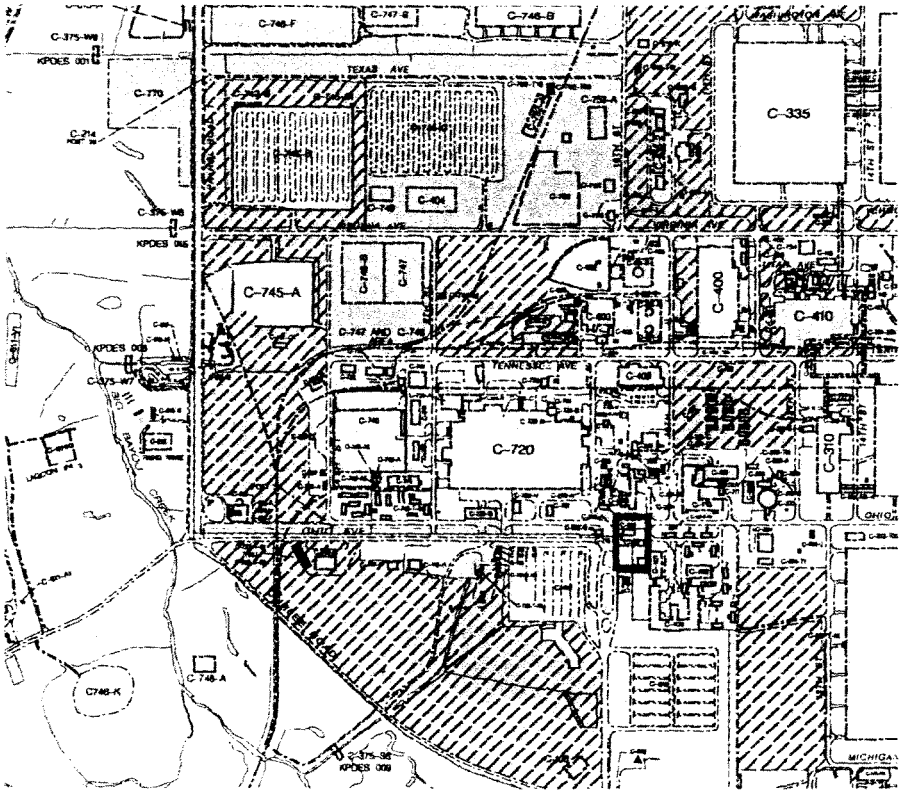
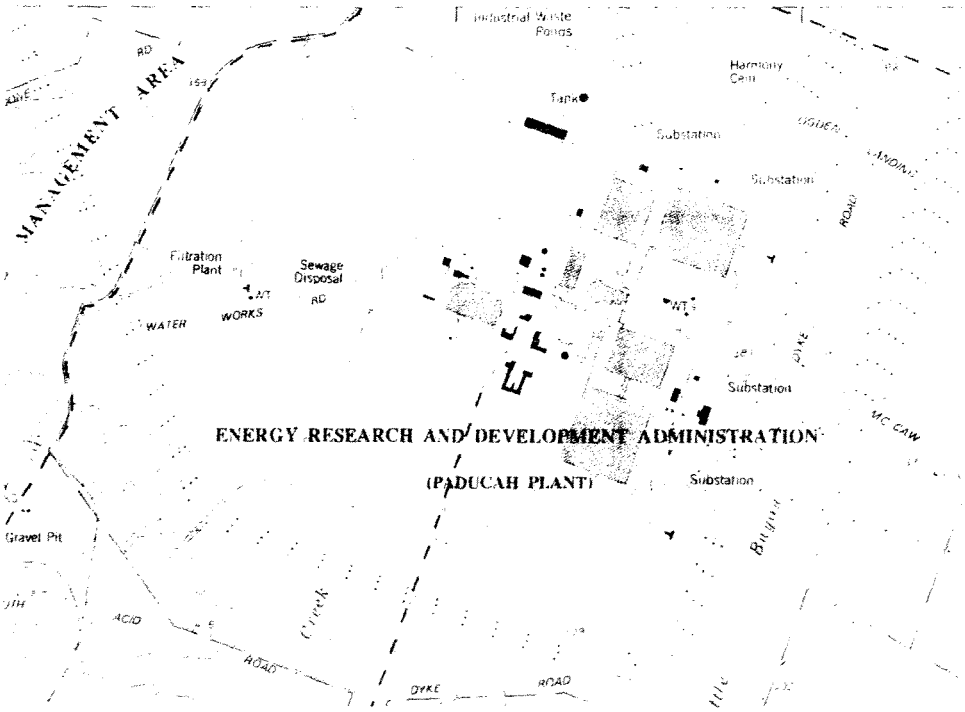
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

C-212 is a one-story, concrete block building constructed in 1953 with a flat roof of gravel and tar, a poured concrete foundation and an exterior of concrete block. The east façade has an entrance with a steel and glass, single-light door. Windows are fixed, single-light steel design. On the main (North) façade is an entrance with a single-light steel and glass door and fixed, single-light windows. On the east façade is an entrance with a steel and glass door. The east wing of 212 has concrete walls and a bank of single-light fixed windows below the roofline. The south facade lacks fenestration except for the east wing which has an entrance with a steel and glass door.

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KENTUCKY HERITAGE COUNCIL

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-212-U Utility Operations Office

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
_____ / _____ / _____ original
_____ / _____ / _____ subsequent

15. DIMENSIONS: 1715 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

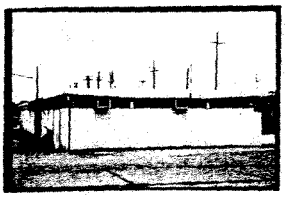
21. ROOF CONFIGURATION/COVERING:

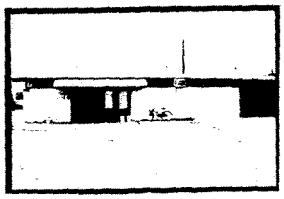
CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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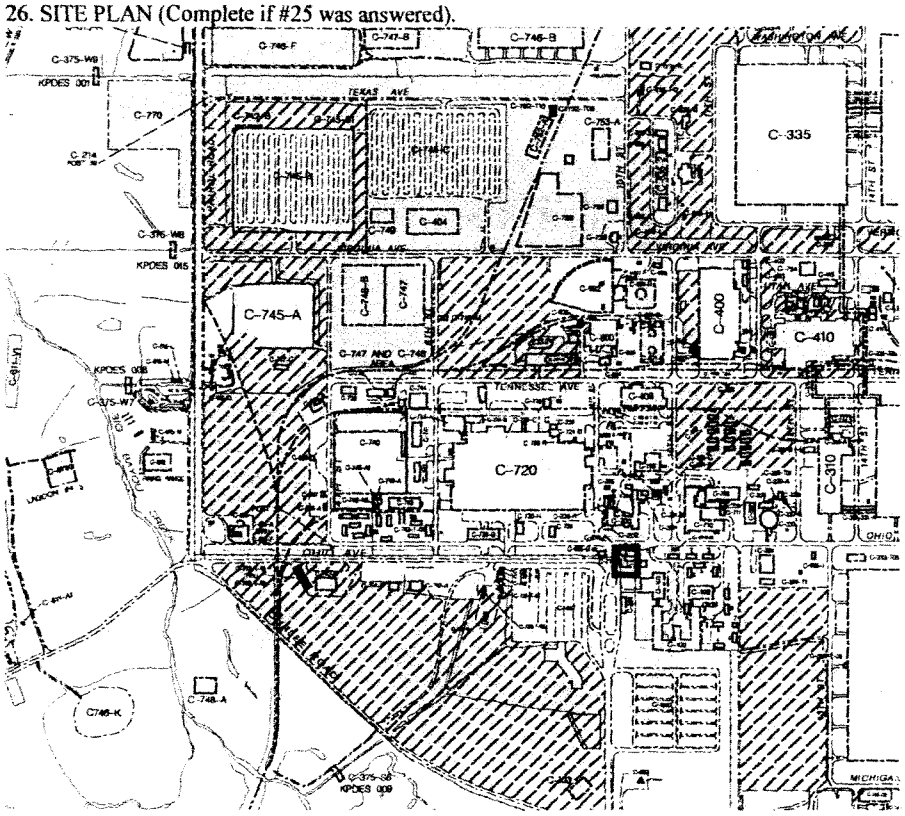
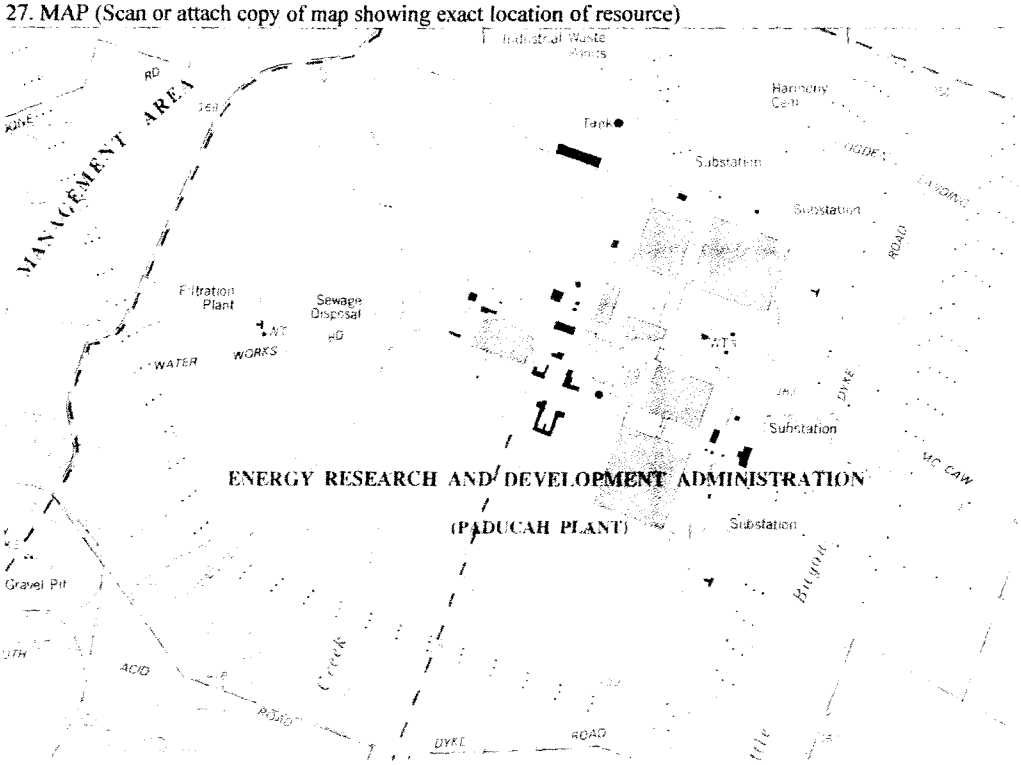
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

Building C-212-U is a one-story, concrete block building constructed in 1953 with a flat roof of gravel and tar, a poured concrete foundation and an exterior of concrete block. The east façade has an entrance with a steel and glass, single-light door. Windows are fixed, single-light steel design. On the main (North) façade is an entrance with a single-light steel and glass door and fixed, single-light windows. On the east façade is an entrance with a steel and glass door. The east wing of 212 has concrete walls and a bank of single-light fixed windows below the roofline. The south facade lacks fenestration except for the east wing which has an entrance with a steel and glass door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-105
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-215 Portals 18 and 19

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 7 / 1957 documented

13. DATE OF MAJOR MODIFICATIONS:
2 / wing addition
1 / wing additions

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
P / 1 / concrete block subsequent

15. DIMENSIONS: 1045 ft²
Height 1 story Width _____ Depth _____

16. O / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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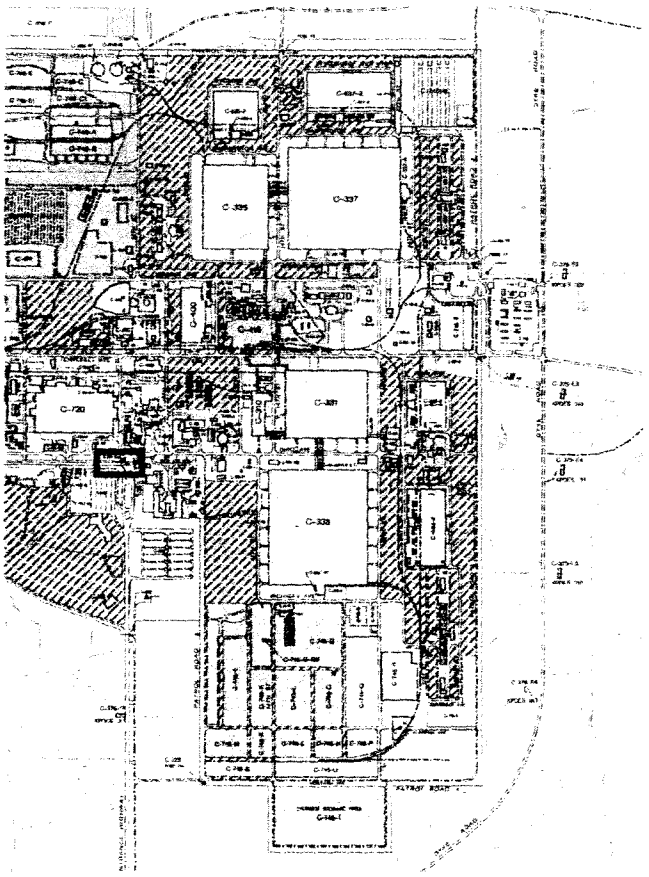
7-12-12

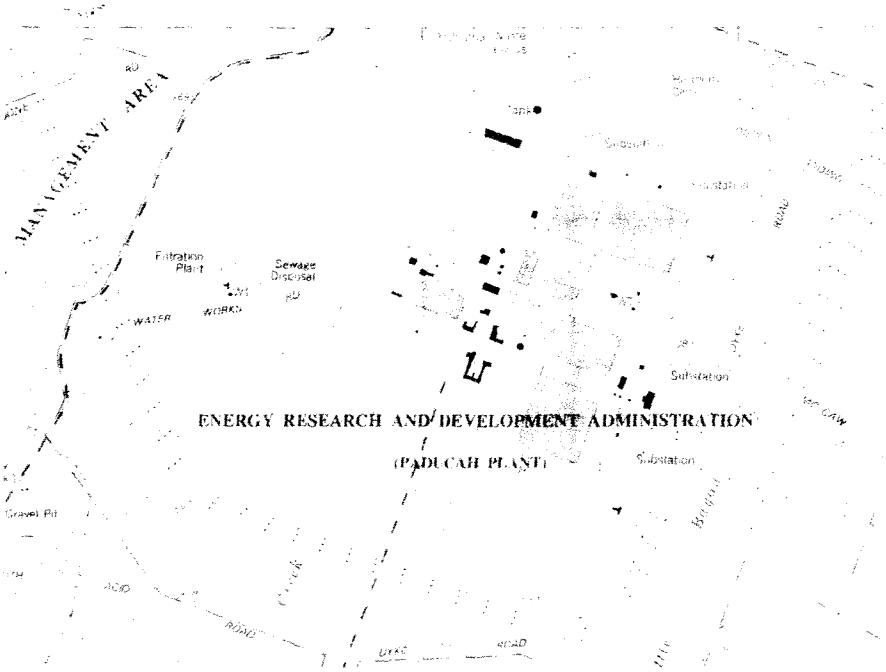
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Security Facilities include the guard posts or portals which provide access into the plant and the Guard and Fire Headquarters (Building C-200). Some of the original portal buildings have been replaced by later structures and new portal buildings have also been erected in recent years due to heightened security threats. Original portal buildings include Post 37 (Building C-216) and Post 43 (Building C-217).

Portals 18 & 19 is a one-story building with a flat roof of gravel and tar, walls of concrete blocks and a poured concrete foundation. This building consists of two offices and a central open-air pedestrian access with metal turnstiles. The offices have steel and glass doors and fixed, single-light steel windows. A flat roof metal canopy extends over the office areas and is supported by steel posts.

~~OFFICIAL USE ONLY~~

TH
7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-216 Post 47

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 3 / 1983 documented

13. DATE OF MAJOR MODIFICATIONS:
____/ _____
____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / concrete original
P / 0 / concrete subsequent

15. DIMENSIONS: 500 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____ ; _____ / _____ first
____/ _____ ; _____ / _____ second
____/ _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
S / poured concrete replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____/ ____/ _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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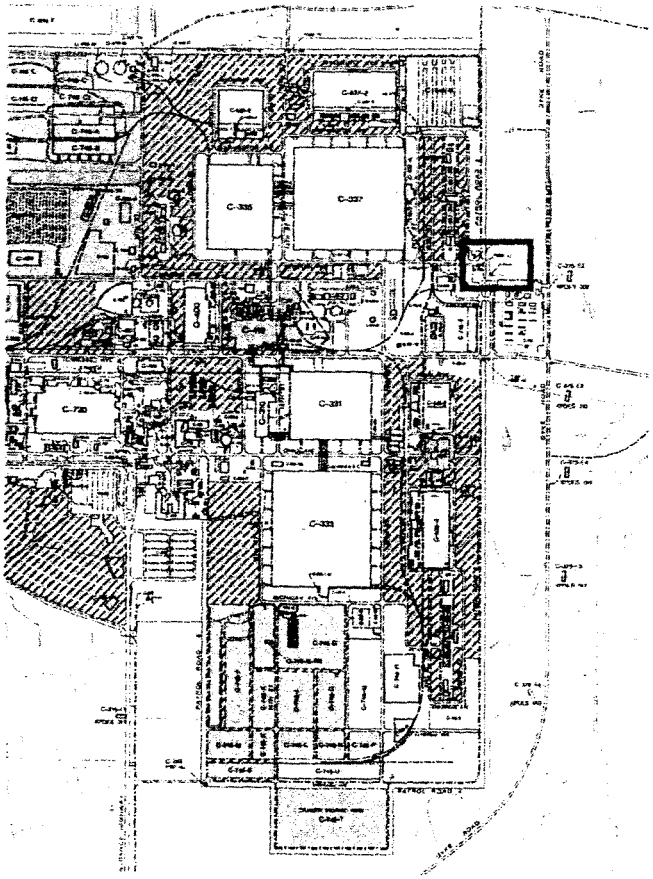
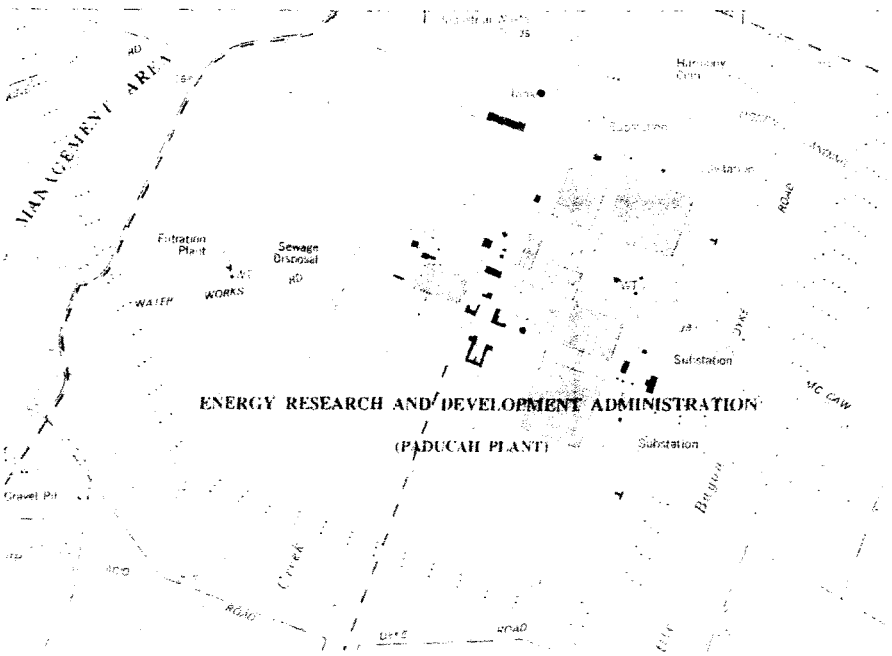
25. SUPPORT RESOURCES: SITE PLAN KEY | FUNCTION | CONSTRUCTION DATE | METHOD/MATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Post 37 is a one-story, concrete guard post. The building has a poured concrete foundation, a built-up, flat roof and exterior walls of concrete. On the main (north) façade is an entrance with an original single-light, steel and glass door. Windows are fixed, single-light design. The building has a projecting wood and metal canopy with steel siding. On the south façade is an entrance with an original, single-light, steel and glass door. The building was designed with chamfered corners at the northwest, southwest and southeast corners.

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7-12-12

KENTUCKY HISTORIC ...
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-217 Post 43

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 5 / 1985 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 108 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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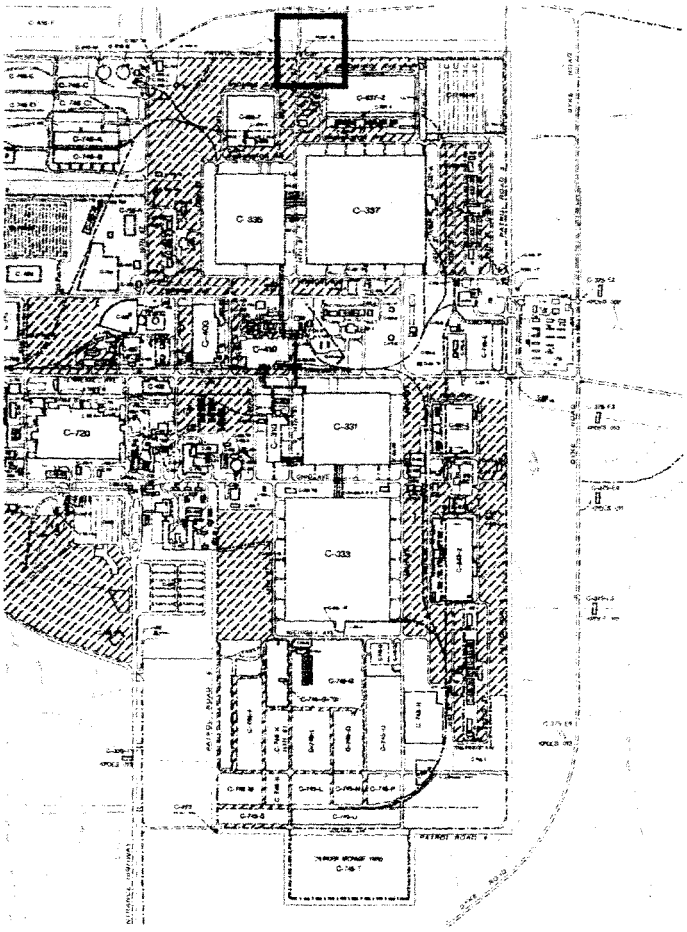
7-12-12

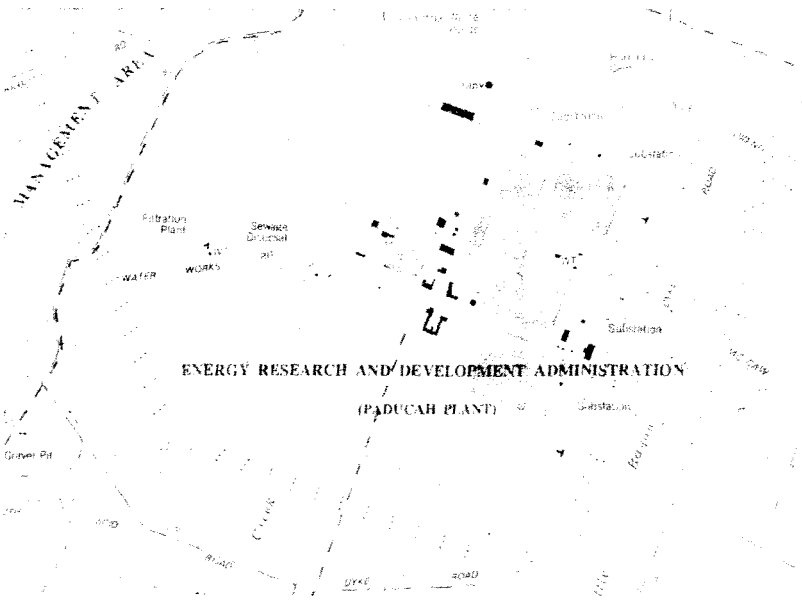
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Security Facilities include the guard posts or portals which provide access into the plant and the Guard and Fire Headquarters (Building C-200). Some of the original portal buildings have been replaced by later structures and new portal buildings have also been erected in recent years due to heightened security threats. Original portal buildings include Post 37 (Building C-216) and Post 43 (Building C-217).

Post 43 is a one-story, steel frame, guard post. The building has a built-up, flat roof, a poured concrete foundation and exterior walls of steel panels. On the main (west) façade is a single-light, steel and glass door. Windows are fixed, single-light, steel and glass design. On the east, north and south facades are fixed, single-light windows.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-300 Central Control Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 16022 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / circular first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL
2 / continuous	R / poured concrete original
2 / continuous	R / poured concrete replacement

20. PRIMARY WALL MATERIAL:
S / reinforced poured concrete original
S / reinforced poured concrete replacement

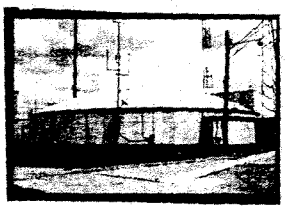
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING
S / elliptical	8 / reinforced concrete original
S / elliptical	8 / reinforced concrete replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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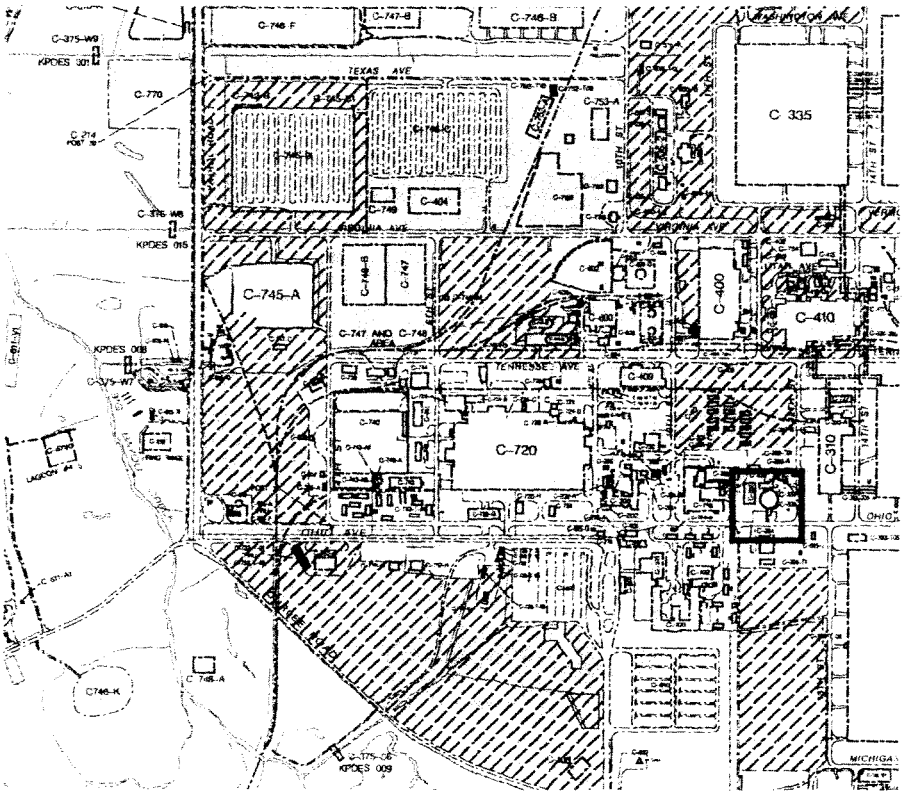
7-12-N

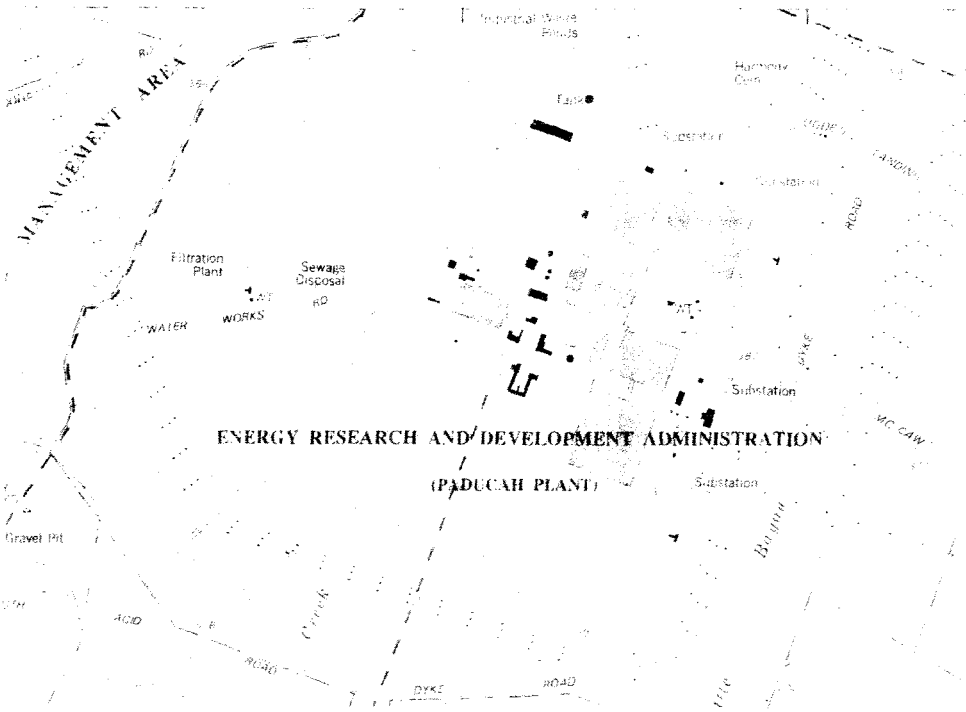
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315 the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

The Central Control Building was constructed in 1953 to serve as the main control center for the gaseous diffusion operation. The Central Control Building is circular in design of reinforced concrete construction. The foundation, walls, and elliptical roof are all of reinforced concrete. On the main (S) façade is a ca. 1980 carport with a metal canopy supported by steel posts. The main entrance is located within a vestibule with a concrete wall and roof. This entrance has a ca. 1980, single-light, steel and glass door. An elliptical, one-story wing is located on the south façade. A secondary entrance is located at the northwest façade of the building with a ca. 1980, steel and glass door. Adjacent to the building are three, steel antennas.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-301 Low Level Waste Storage

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 9 / 1959 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 2802 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / vertical steel panels original
Q / vertical steel panels replacement

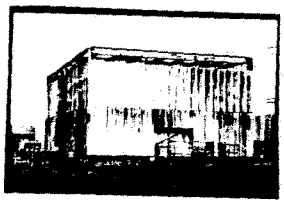
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel	original
Q / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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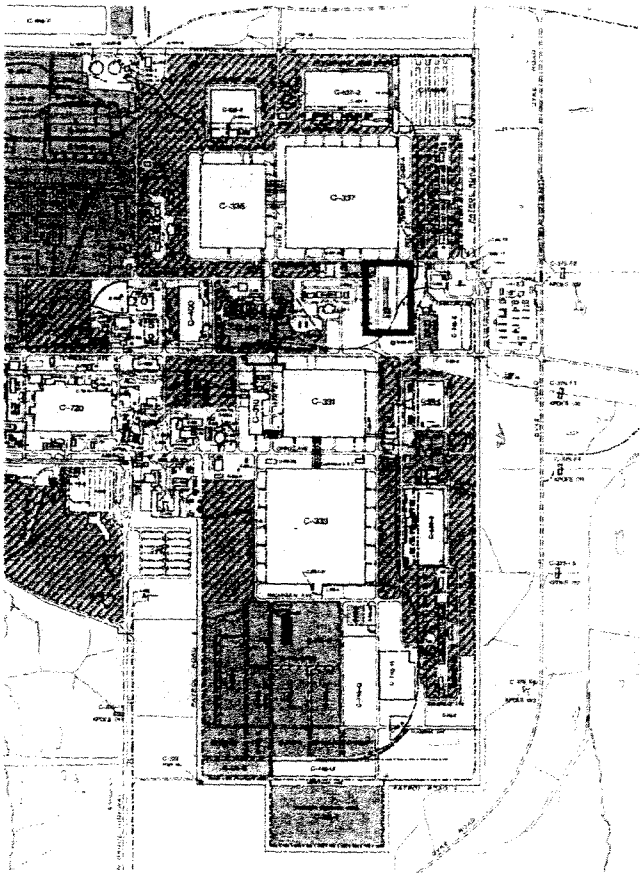
7-12-12

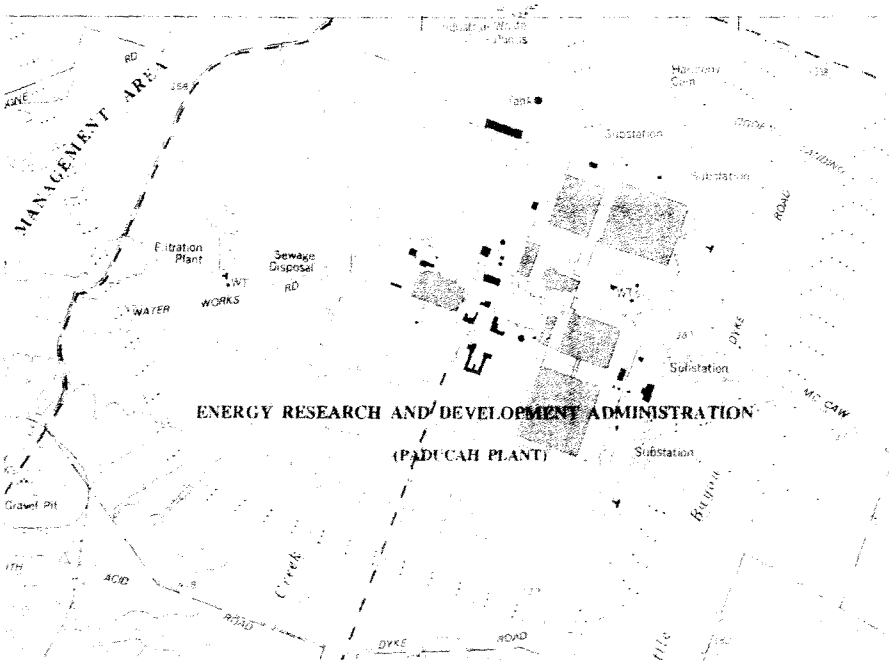
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-301 is a Low Level Waste Storage facility constructed in 1959. The rectangular plan building has a poured concrete foundation, a flat, steel roof and exterior walls of vertical steel panels. On the main (west) façade is a garage bay entrance with an overhead steel track door. There are two similar entrances on the north and south facades. On the east façade is a garage bay entrance with an overhead track door. There is no other fenestration.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-302 Operations Division Data Center

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: _____ / _____ estimated
1 / 9 / 8 / 1 / 1981 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 7366 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
M / Stucco original
M / Stucco replacement

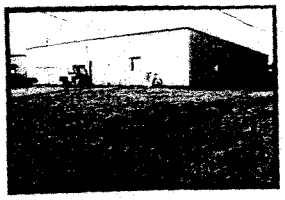
21. ROOF CONFIGURATION/COVERING:

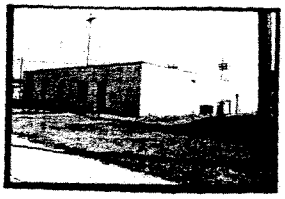
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

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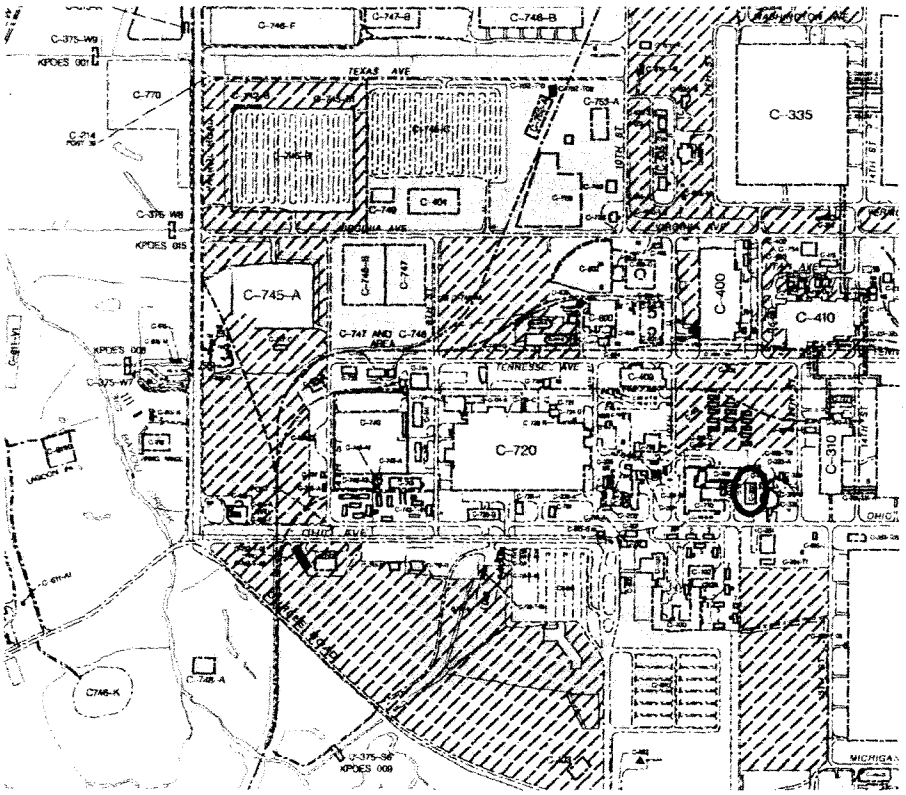
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ A
7-12-12

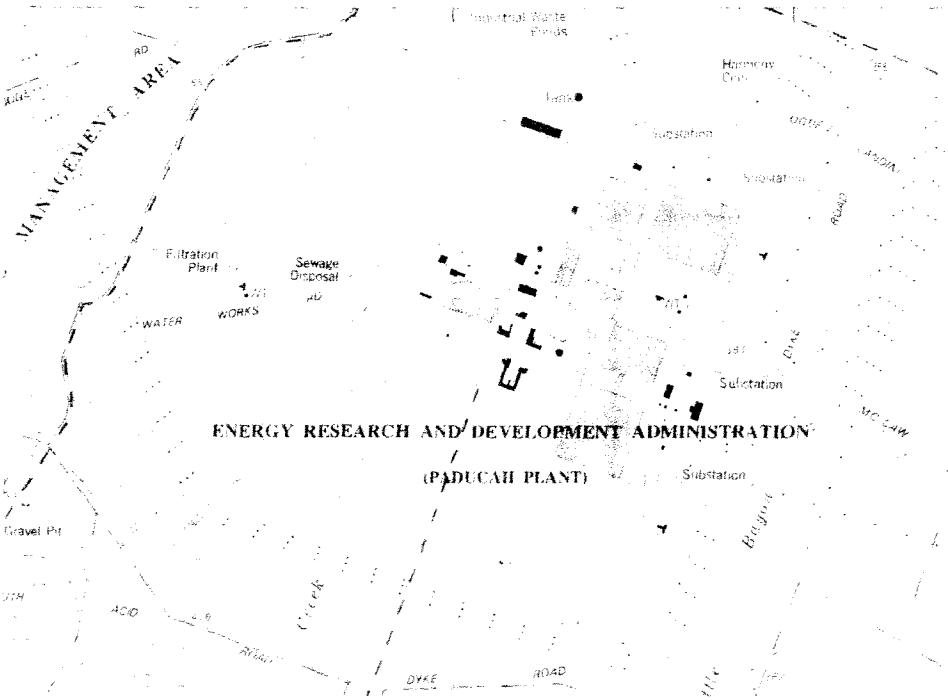
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY 7-12-12

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Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

Building C-312 is a one-story building which was built in 1981 as a data center. The building has a concrete foundation, a flat built-up roof and an exterior of synthetic stucco. On the main (S) façade is an entrance with a steel and glass door. Windows are single-light and double-light of fixed anodized aluminum. On the east façade are two entrances with single-light, steel and glass doors. At the rear façade is a single-light steel and glass door. There is no fenestration on the west façade.

~~OFFICIAL USE ONLY~~

7-12-12

KENTUCKY HERITAGE

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-303 Acquisitions Systems Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 4 / 1984 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / concrete original
P / 0 / concrete subsequent

15. DIMENSIONS: 2109 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / textured poured concrete original
S / textured poured concrete replacement

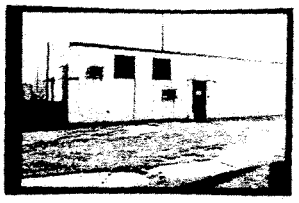
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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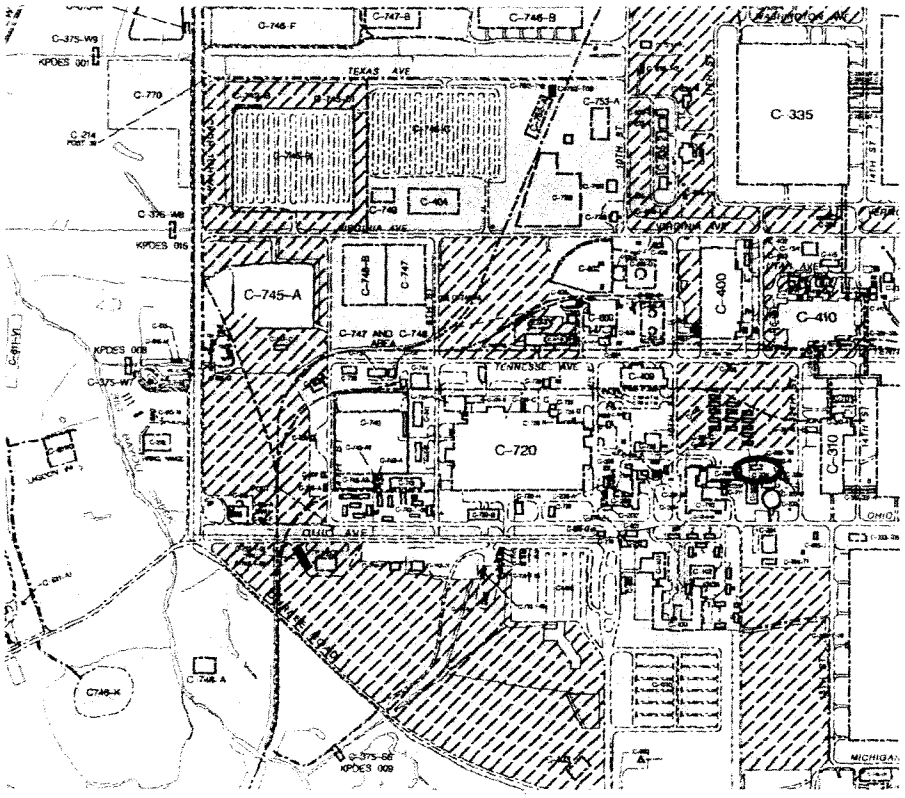
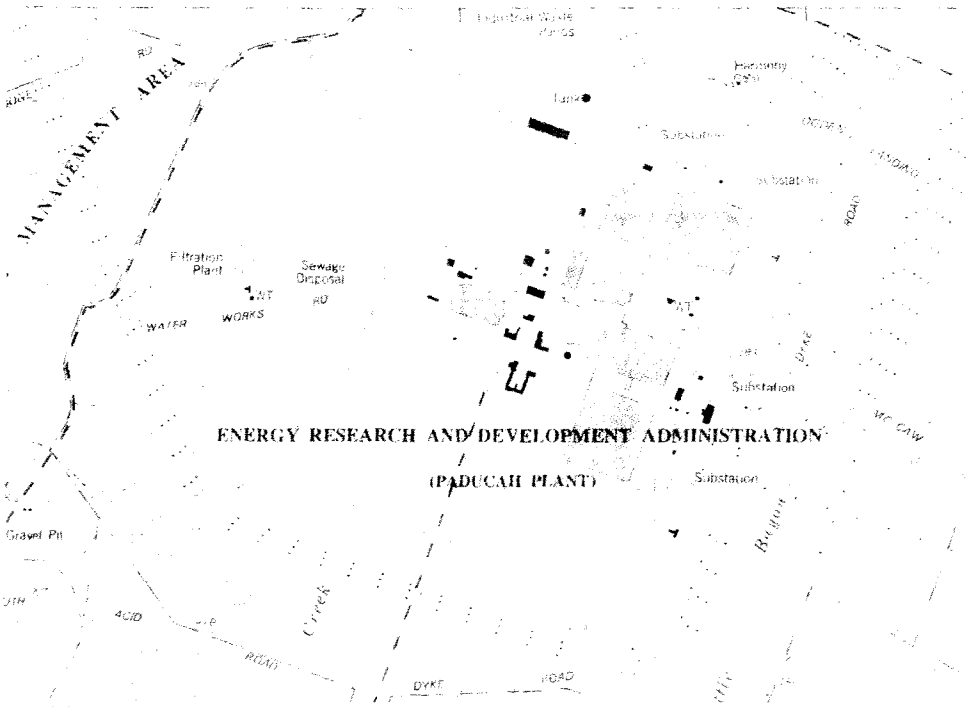
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



COUNTY McCracken

~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

C-303 is a one-story, rectangular plan building of concrete construction built in 1984. The building has a concrete foundation, a flat, built-up roof and an exterior of textured concrete. On the main (S) facade is an entrance with a solid steel door. There is no other fenestration on this façade except for louvered vents. The east façade has an entrance with a solid steel door and no other fenestration. The north façade has an entrance with double doors of solid steel design. On the west façade is an entrance with a steel door with a louvered vent.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-304 Training and Cascades Office Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 9 / 1 / 1991 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 8000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
C / brick veneer stretcher bond original
C / brick veneer stretcher bond replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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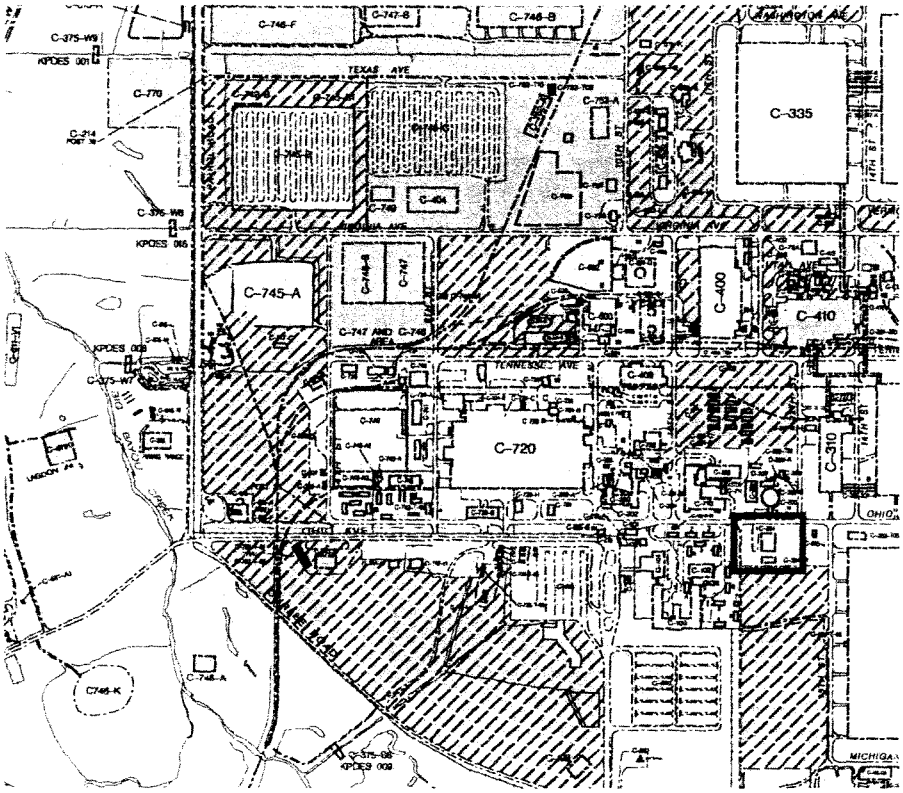
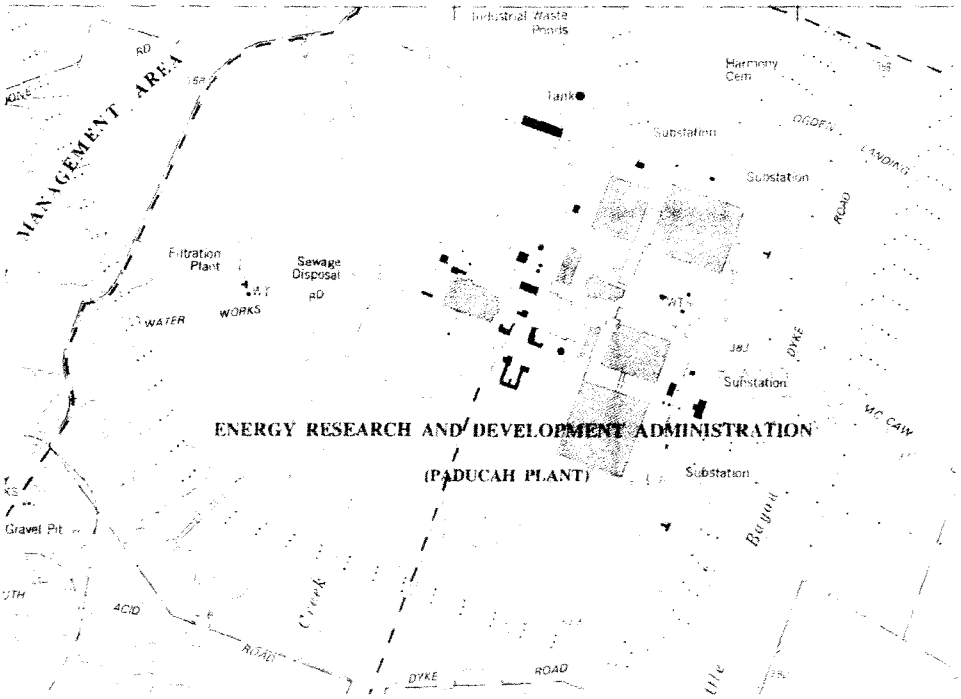
25. SUPPORT RESOURCES: SITE PLAN KEY | FUNCTION | CONSTRUCTION DATE | METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectior of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge anc Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design anc engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 anc was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office anc residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains ir business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the mair administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training anc Cascade Office (Building C-304) and Building C-212.

Building C-304 is a one-story, brick veneer building used as the Training and Cascade Office Building. The building has a poured concrete foundation, a flat built-up roof and an exterior of stretcher bond brick. On the main (N) façade is an entrance with double doors of glass and aluminum. Windows are fixed, single light, anodized aluminum with brick sills. At the roofline is a flat parapet wall with metal coping. On the west façade is an entrance with a single-light, aluminur and glass door. At the rear (S) façade is a similar entrance and door which is accessed by a wood handicap ramp. The exterior walls also display meta downspouts.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # KHC ...
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-310 – Purge and Product Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 112240 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

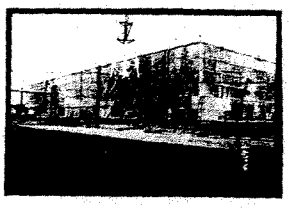
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

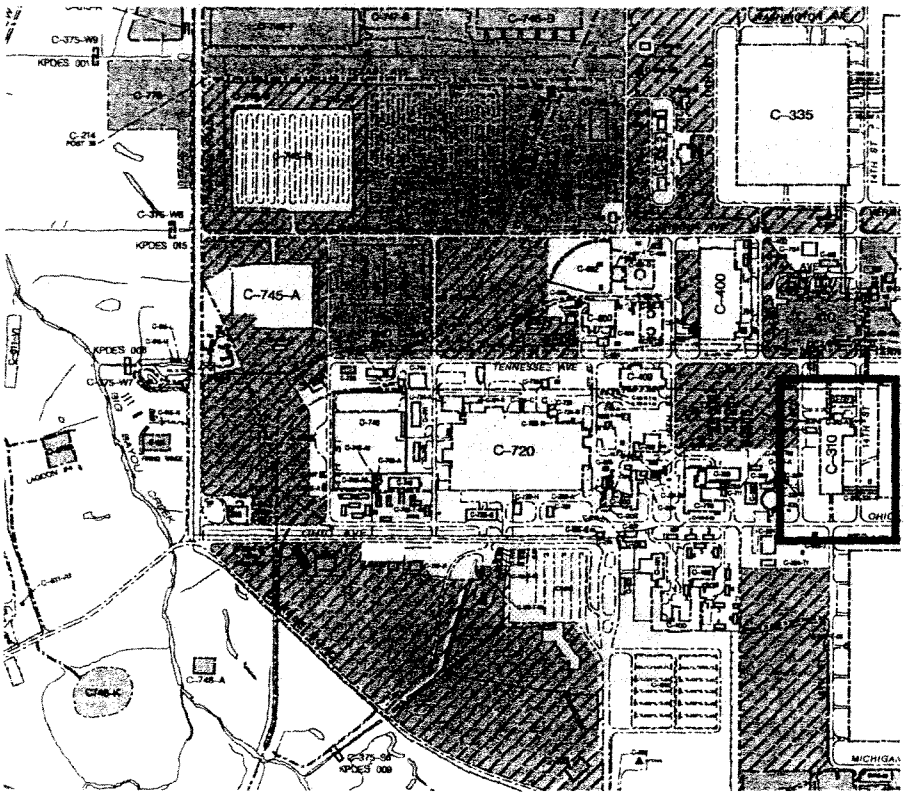
~~OFFICIAL USE ONLY~~

7-12-12

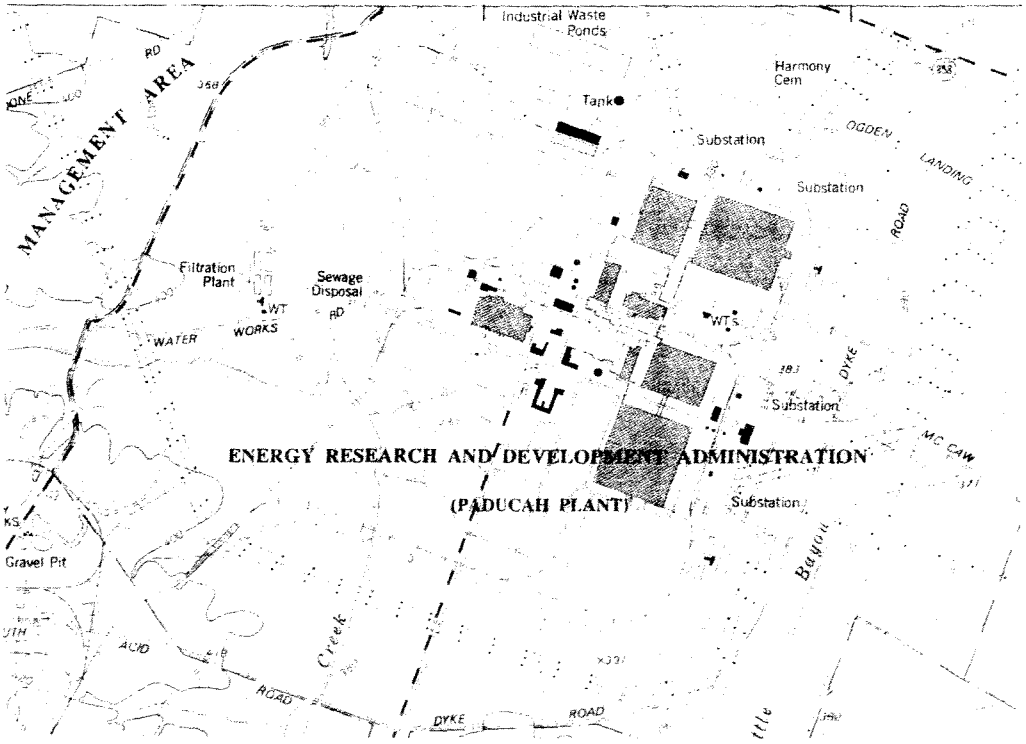
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

Building C-310 is a two-story building which extracts the depleted and enriched uranium produced by the plant. The building was completed in 1952. The building has a poured concrete foundation, a built-up, flat roof and an exterior of transite panels. On the north façade is a garage bay on the first floor with a steel overhead track door. This façade has a steel staircase which connects with a second story entrance. This entrance has a ca. 1980, steel and glass door. There is no other fenestration on this façade except for louvered, rectangular vents.

On the east façade is a large, metal canopy which extends across approximately a third of the building. This canopy is supported by steel posts and encloses twenty-ton crane used to transport steel cylinders. The first floor of this façade has a one-story section of poured concrete. This section of the building has steel and glass pedestrian entrance and two garage bays with twenty-four light, steel and glass overhead track doors. To the south of this concrete section of the first floor has an exterior of transite panels. On this section of the façade is a garage bay with an overhead track door. Also on this section of the façade are three, original, two-light, steel and glass pedestrian doors. The upper façade lacks fenestration except for a two-light, steel and glass door on the second story accessed by a steel staircase. Attached to this section of the façade is a second twenty-ton crane for cylinder loading.

The south façade has a wall of transite panels and the only fenestration is an overhead track steel door in the central bay of the first floor. The west façade has three pedestrian doors on the first floor which are original, two-light, steel and glass design. Also on the first floor are two, rectangular louvered vents. The upper façade lacks fenestration except for a pedestrian entrance on the second story which has an original, two-light, steel and glass door. This door is accessed by an exterior wall staircase. At the southwest corner of the building is an attached steel tower which rests on a concrete foundation. This tower supports on exhaust pipe which vents materials from the building.

~~OFFICIAL USE ONLY~~

7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-PA-
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-310-331-A Enclosed Bridge

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal original
X / X / metal subsequent

15. DIMENSIONS: 200 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	/	original
0 /	/	replacement

20. PRIMARY WALL MATERIAL:
Q / metal panels original
Q / metal panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	7 / metal panels	original
Q / flat	7 / metal panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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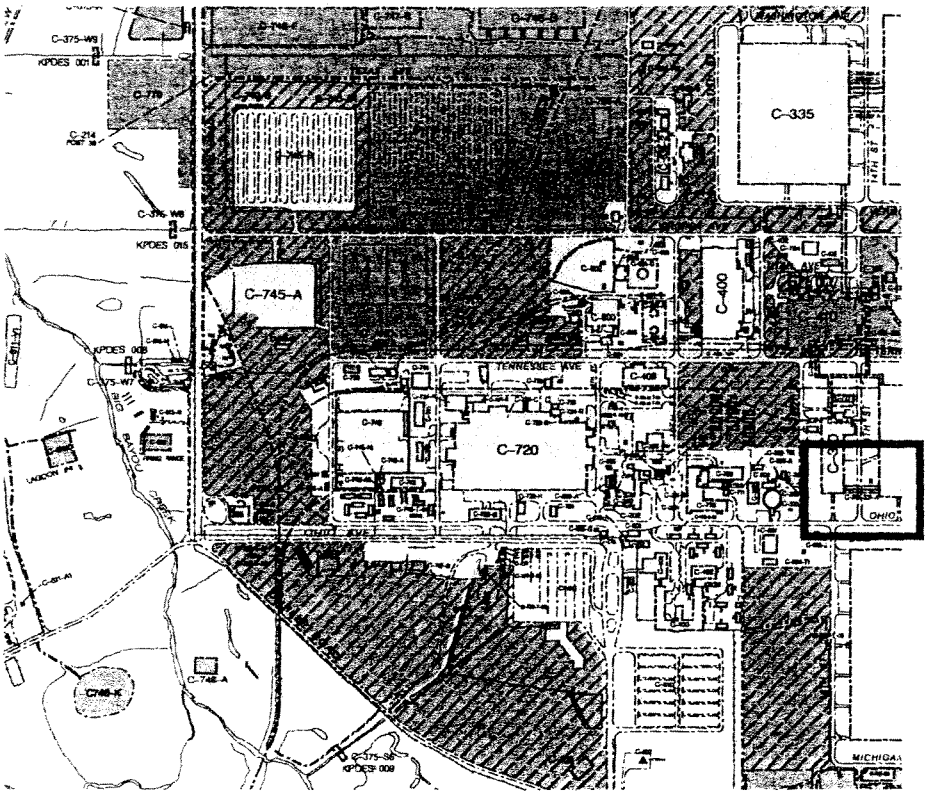
7-12-N

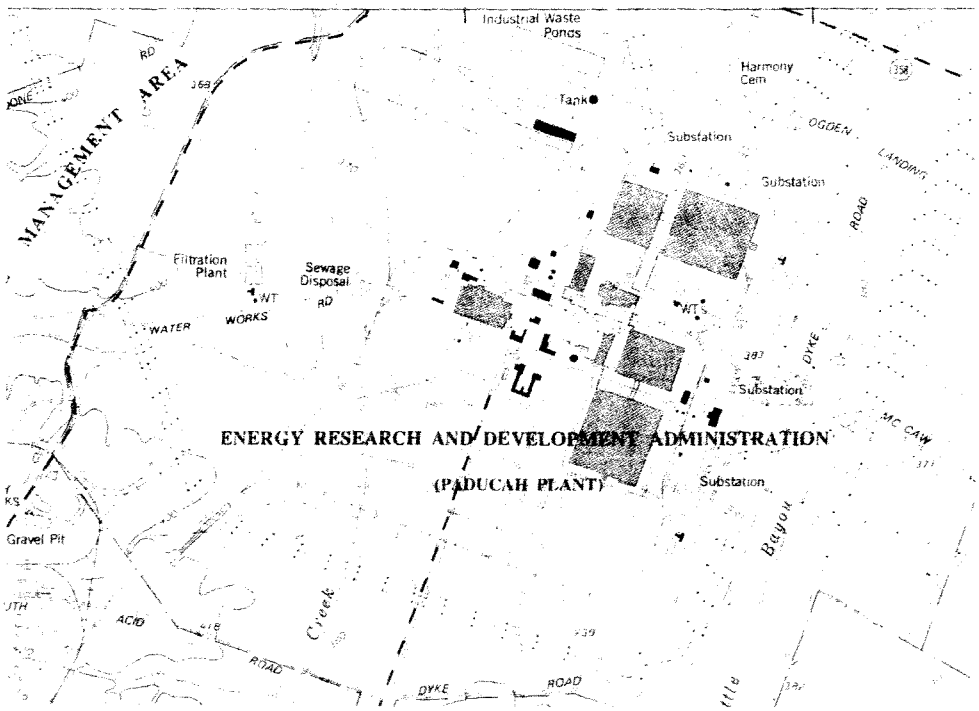
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

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The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processin buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-23 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Produc Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-31 the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, th Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roof and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block an sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C 333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 ar smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction an circular design.

Building C-340 is the DOE Metals Plant Complex which operated from 1955 to 1977 converting UF_6 to uranium metal and hydrogen fluoride. This building is on of two complexes at the site currently under the Decontamination and Decommissioning (D&D) program. This complex includes 7 facilities with a total of 80,00 square feet. Building C-410 is the second of the complexes at the site currently under the D&D program. It operated between 1952 and 1977 manufacturing UF feed and fluorine. It includes nine facilities with a total of 200,000 square feet. Both of these complexes are scheduled for demolition.
Building C-310 is a two-story building which extracts the depleted and enriched uranium produced by the plant. The building was completed in 1952. Th building has a poured concrete foundation, a built-up, flat roof and an exterior of transite panels. On the north façade is a garage bay on the first floor with a ste overhead track door. This façade has a steel staircase which connects with a second story entrance. This entrance has a ca. 1980, steel and glass door. The is no other fenestration on this façade except for louvered, rectangular vents.

On the east façade is a large, metal canopy which extends across approximately a third of the building. This canopy is supported by steel posts and encloses twenty-ton crane used to transport steel cylinders. The first floor of this façade has a one-story section of poured concrete. This section of the building has steel and glass pedestrian entrance and two garage bays with twenty-four light, steel and glass overhead track doors. To the south of this concrete section of t first floor has an exterior of transite panels. On this section of the façade is a garage bay with an overhead track door. Also on this section of the façade a three, original, two-light, steel and glass pedestrian doors. The upper façade lacks fenestration except for a two-light, steel and glass door on the second st accessed by a steel staircase. Attached to this section of the façade is a second twenty-ton crane for cylinder loading.

The south façade has a wall of transite panels and the only fenestration is an overhead track steel door in the central bay of the first floor. The west façade h three pedestrian doors on the first floor which are original, two-light, steel and glass design. Also on the first floor are two, rectangular louvered vents. The up façade lacks fenestration except for a pedestrian entrance on the second story which has an original, two-light, steel and glass door. This door is accessed by exterior wall staircase. At the southwest corner of the building is an attached steel tower which rests on a concrete foundation. This tower supports on exha pipe which vents materials from the building.

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TH 7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-310-331-B Tie Lines

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 200 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
Q / metal pipes original
Q / metal pipes replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	/	original
0 /	/	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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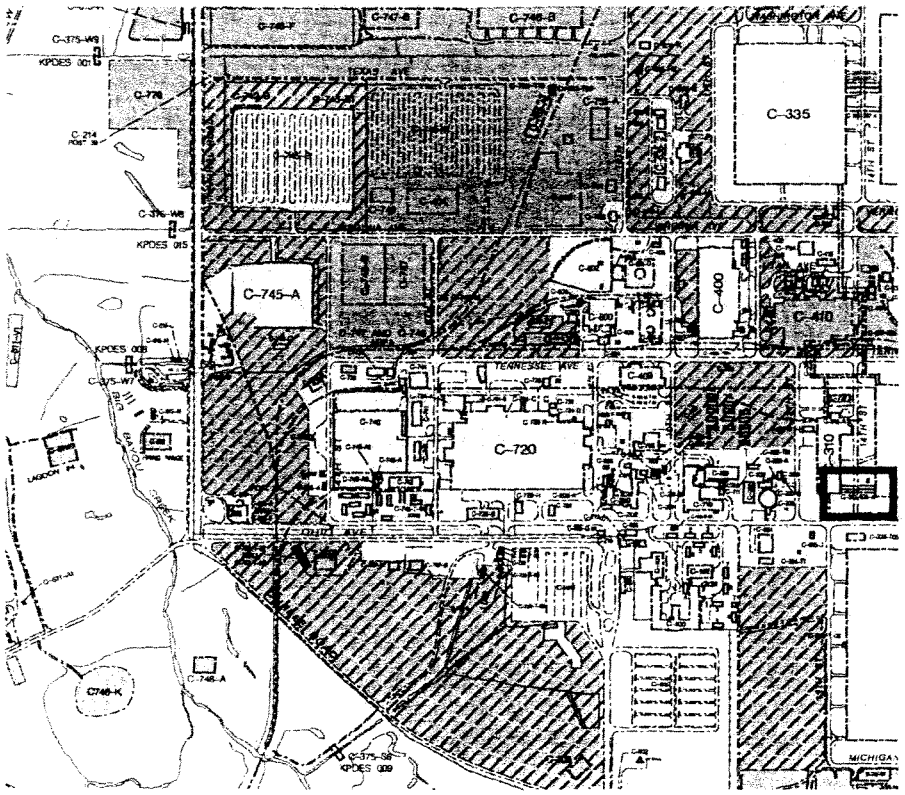
TH
7-12-04

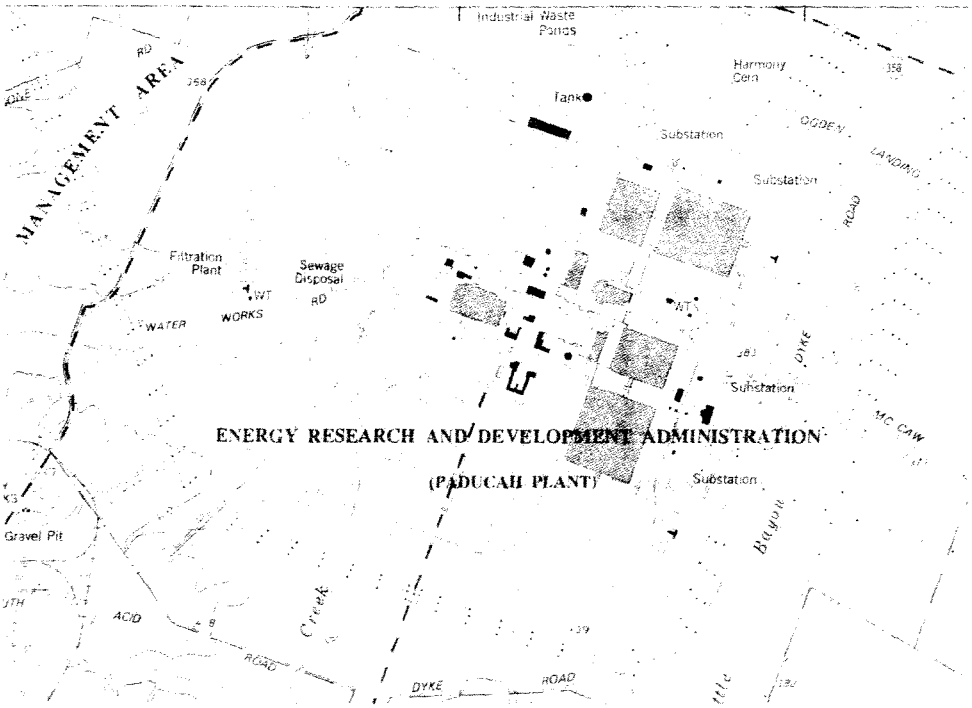
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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TH
7/2-12

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7-12-12

KENTUCKY HISTORIC

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-310-410 Tie Lines

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 520 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
Q / metal piping original
Q / metal piping replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	/	original
0 /	/	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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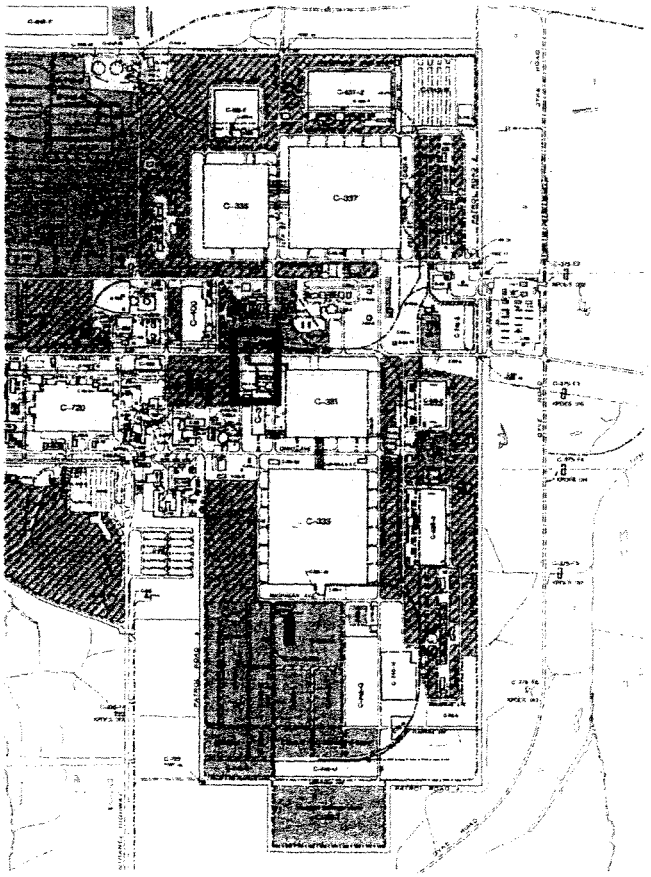
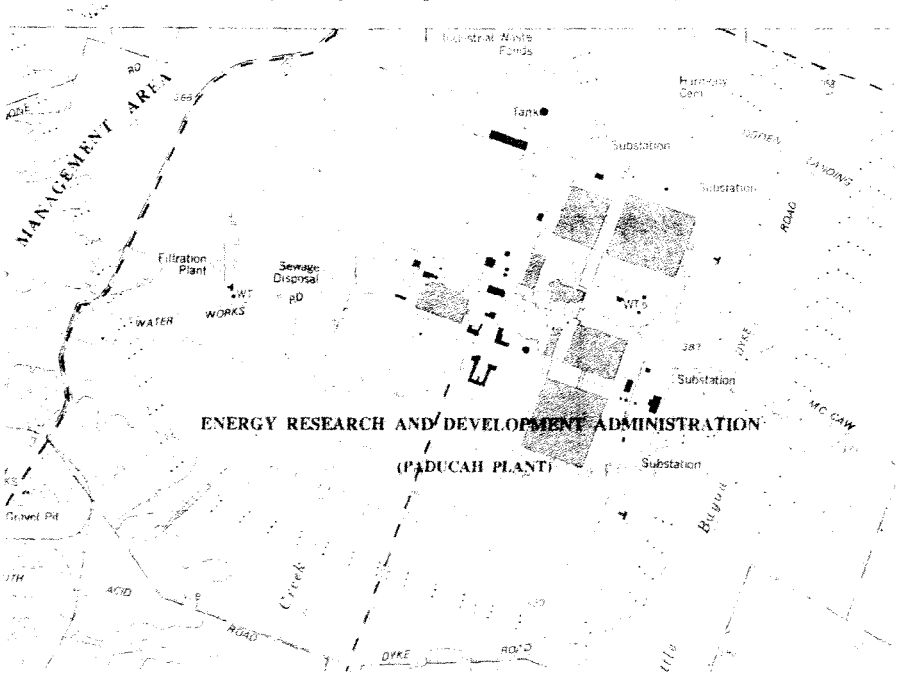
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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III

7-12-1

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4. /

Paducah Gaseous Diffusion Plant
Building No. C-310-A Product Withdrawal Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 3276 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

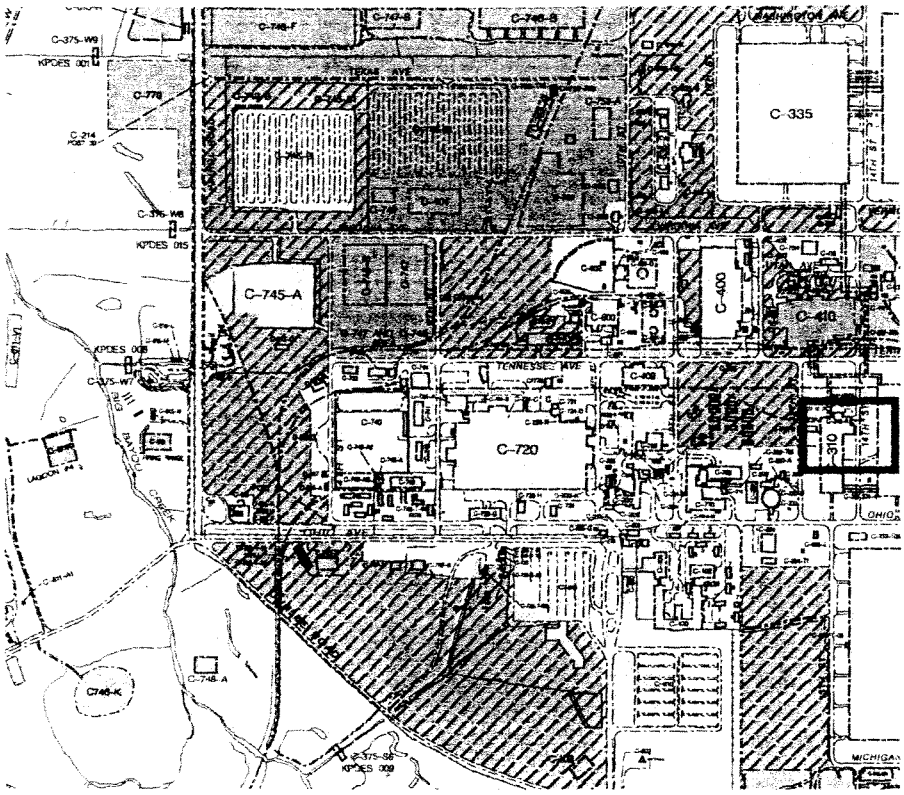
~~OFFICIAL USE ONLY~~

TH
7-12-04

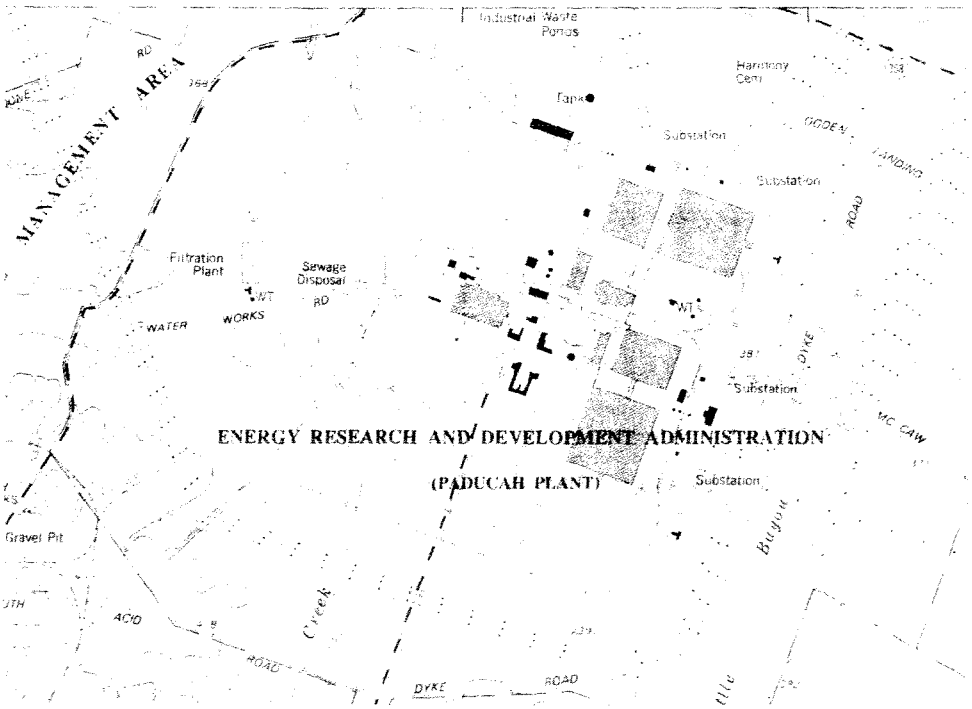
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

TH
7-12-A

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The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315 the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block anc sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction anc circular design.

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7-12-12

KENTUCKY HERITAGE COUNCIL

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-315 Surge and Tails Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 16040 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / reinforced poured concrete original
Q / transite panels replacement

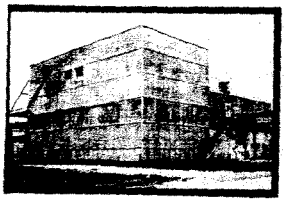
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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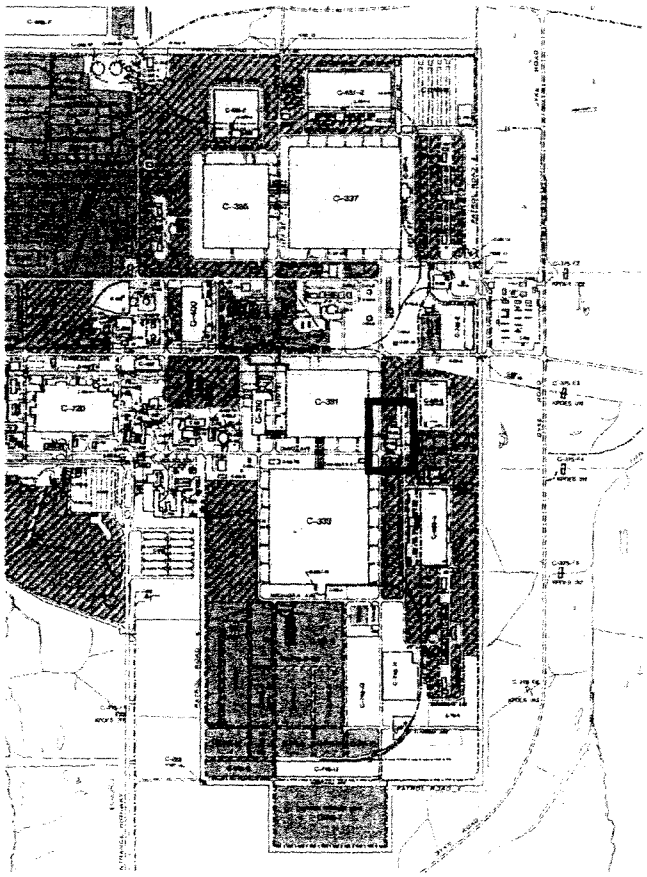
7-12-L

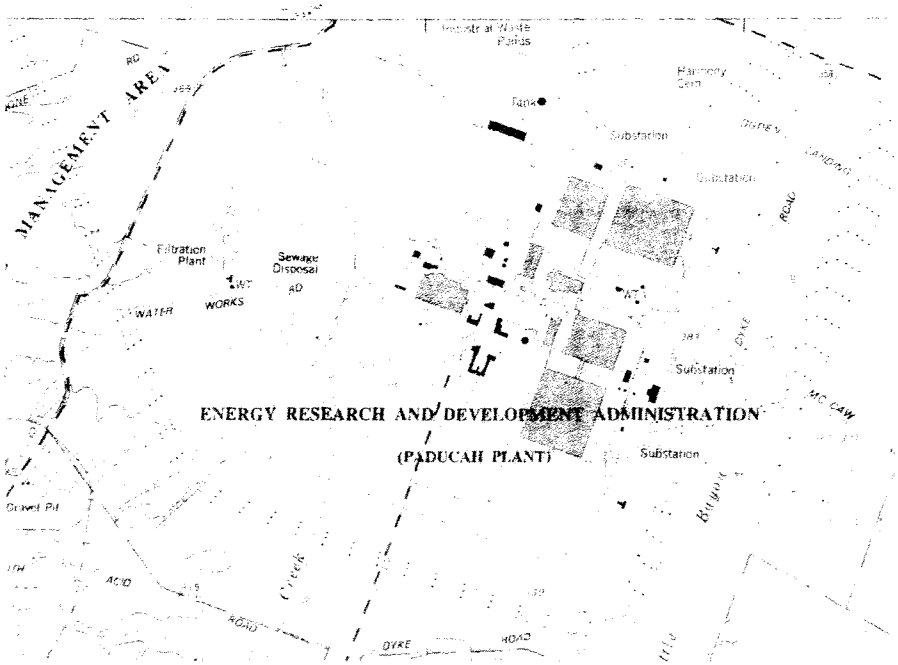
25. SUPPORT RESOURCES: SITE PLAN KEY | FUNCTION | CONSTRUCTION DATE | METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

C-315 is a two-story building which shares a common party wall on the south façade with **Building 620**. The Surge and Tails Building is the site of the extraction of the depleted uranium 238 from the gaseous diffusion process and its placement within steel cylinders. Completed in 1952, this building is of steel and concrete construction on the west façade of the building is a partial-width wall of poured concrete on the first floor. Building C-315 has a poured concrete foundation, a flat, built-up roof and an exterior of transite panels. The upper façade and rest of the first story has an exterior of transite panels. In the concrete section is a pedestrian door with an original, two-light steel and glass door. This façade also has a garage bay with an overhead steel track door. On the upper façade is an entrance with a steel and glass door that is reached by a steel staircase. Extending from the upper façade of this building is an enclosed steel tie line designated as C-315-331 and rests on steel piers. The north façade of the building lacks fenestration except for two louvered vents.

The east façade of the building also has a partial-width wall of poured concrete. Within this wall is a pedestrian entrance with an original steel and glass door and four garage bays with steel overhead track doors. Across the width of the building is a large metal canopy. The canopy protects the loading dock area and beneath the canopy is a twenty-ton crane for loading the uranium cylinders.

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KENTUCKY

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-315-331 Tie Lines

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 10240; 5800 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
Q / metal piping original
Q / metal piping replacement

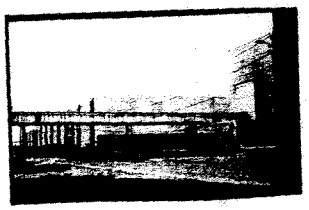
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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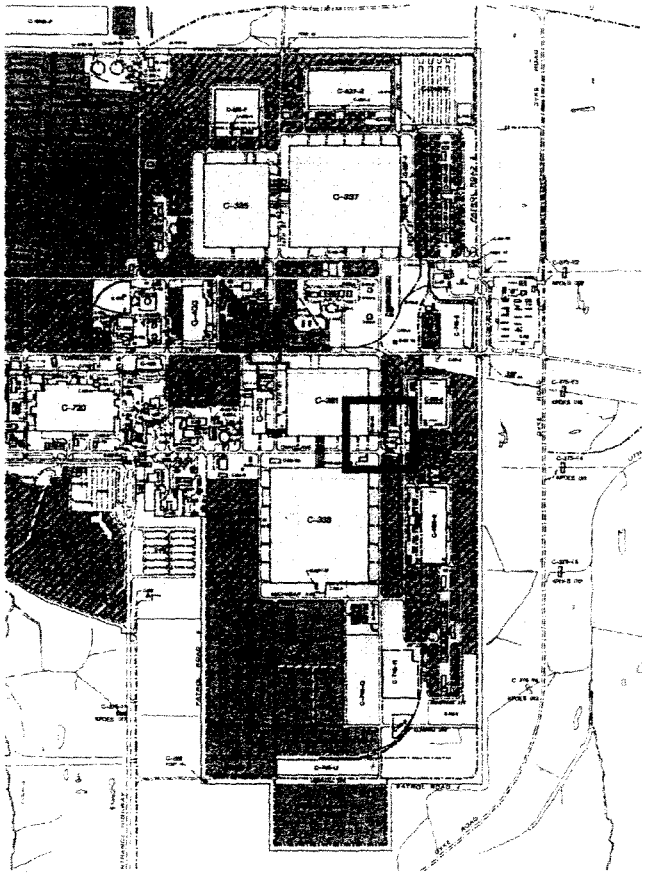
7-12-12

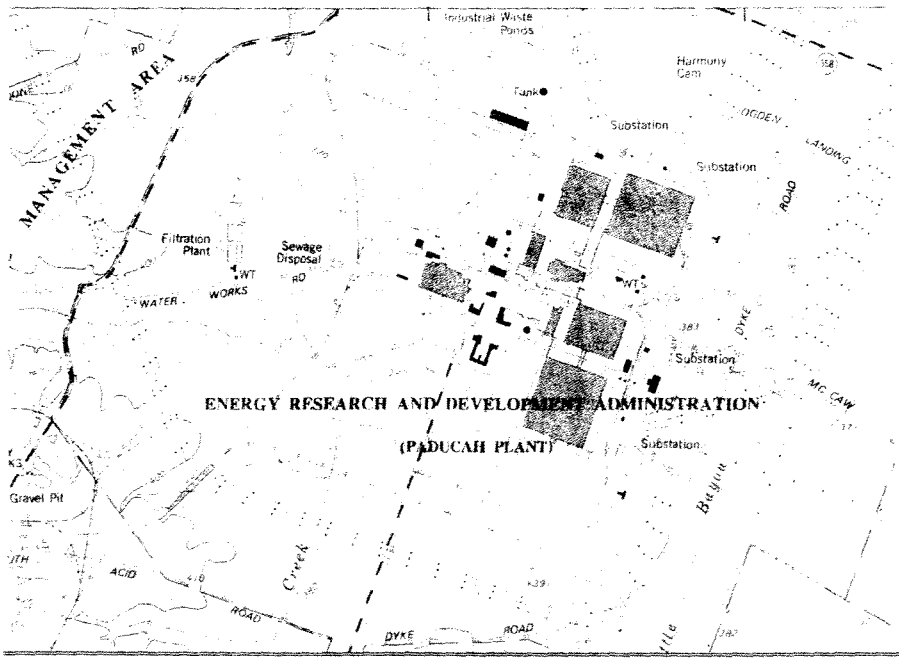
25. SUPPORT RESOURCES: SITE PLAN KEY | FUNCTION | CONSTRUCTION DATE | METHOD/MATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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TH 7-12-11

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KENTUCKY HERITAGE COUNCIL

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-320 Communication Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / concrete original
P / 0 / concrete subsequent

15. DIMENSIONS: 1116 ft²
Height _____ Width _____ Depth _____

16. PLAN:
O / rectangular first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete original
S / smooth poured concrete replacement

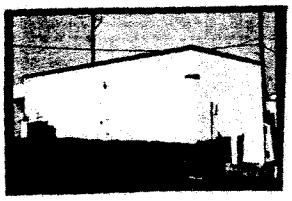
21. ROOF CONFIGURATION/COVERING:

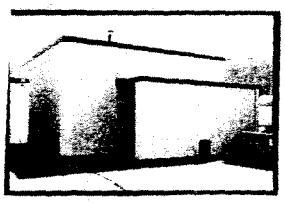
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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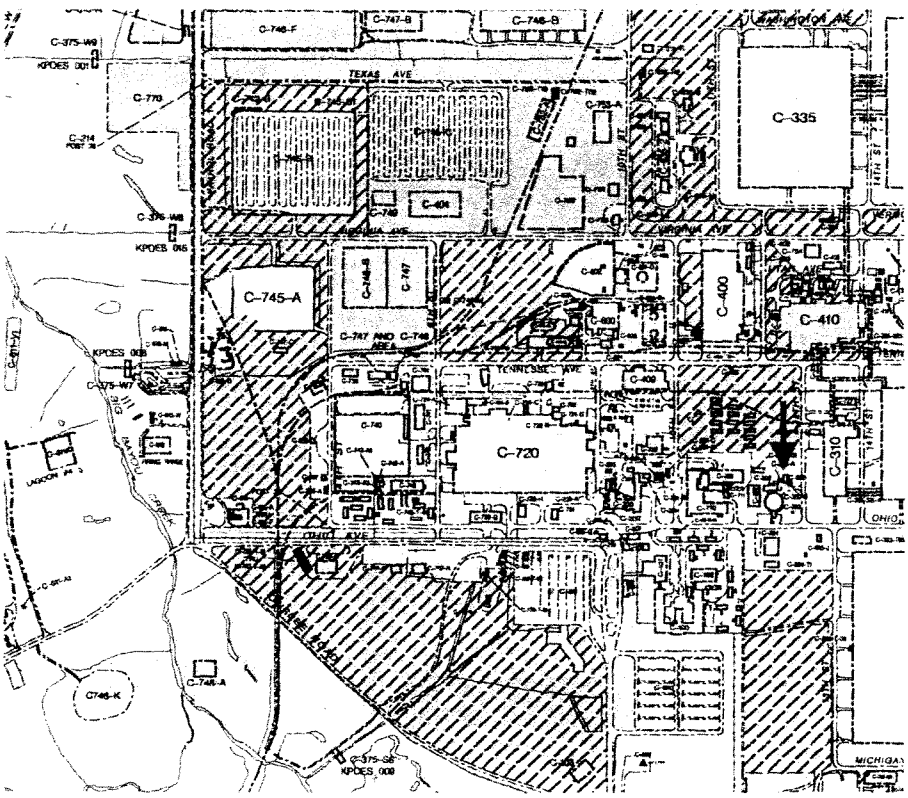
212-N

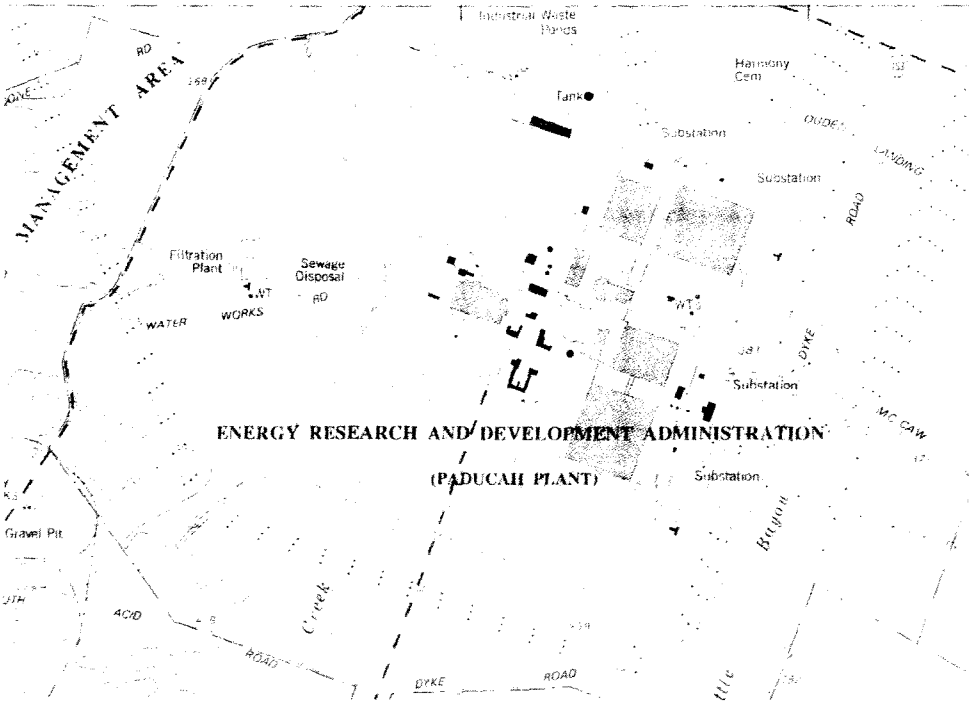
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

Building C-320 is a one-story, concrete building constructed in 1952 in rectangular plan. The building has a built-up roof, exterior walls of smooth concrete and concrete foundation. On the main (S) façade is a vestibule with a concrete wall and roof. The main entrance has a solid steel door. There is no fenestration on the other three facades. The main entrance also has a steel security door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # [illegible]
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-331 Process Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 1029120 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___/ _____ first
___/ _____ second
___/ _____ third

17. STYLISTIC INFLUENCE:
___/ _____; _____/ _____ first
___/ _____; _____/ _____ second
___/ _____; _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

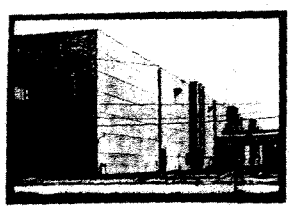
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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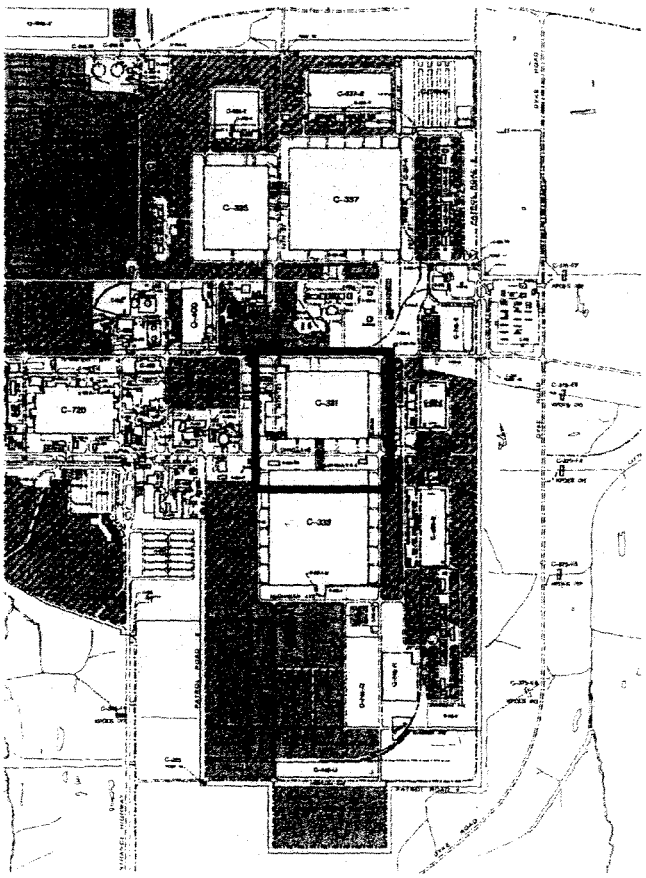
TH
7-12-1

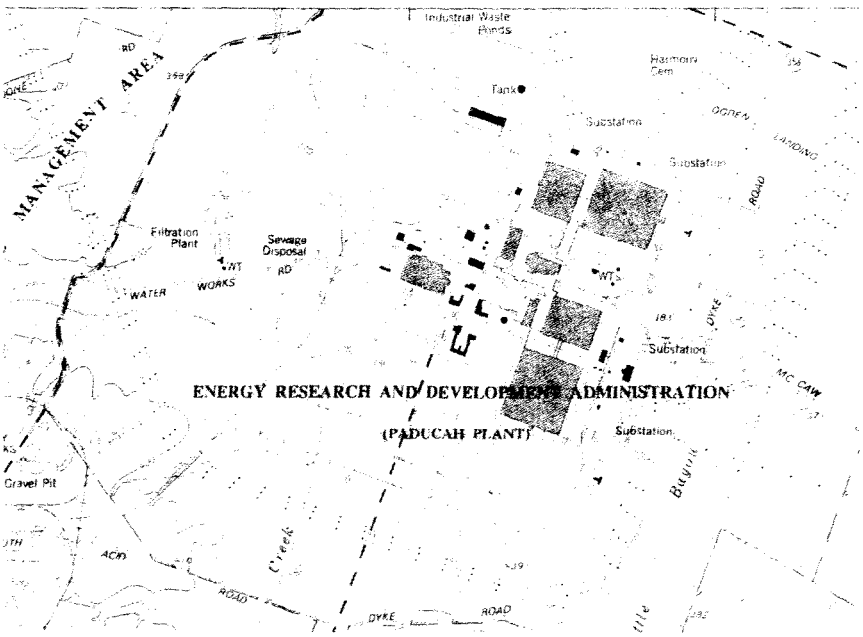
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

TH
7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design anc engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 anc was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office anc residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains ir business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 an enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the to floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or gree salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichmer system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processin buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-23 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Produc Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-31 the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, th Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roo and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block an sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C 333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 ar smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction an circular design.

Building C-331 was completed in 1952 and contains cascade machinery used in the gaseous diffusion process. The building has a flat, built-up roof, a poure concrete foundation and an exterior of transite panels. The north façade is incised with large steel support posts extending the width of the building. Th recessed section is referred to as a "truck alley" and provides protected access to the building for vehicles and railroad cars. The first floor within this recesse façade has four entrances each with paired, sliding track steel doors. These doors are set within concrete surrounds. The upper façade of the north elevati lacks fenestration except for four pairs of exhaust vents. This façade also features three sets of enclosed rectangular exhaust ducts that are grouped in sectio of three. On the first floor recessed section are rectangular, louvered vents between the four entrances.

On the west elevation, this building has two pedestrian doors of original steel and glass design on the first floor. On the second floor in the central bay is a st and glass door accessed by an exterior wall steel staircase. On the first floor of this façade are rectangular louvered vents. The upper façade lacks fenestrati except for the pedestrian door. This façade displays two projecting, rectangular exhaust ducts on the upper façade. On this façade is a tie line which conne with Building C-310 which is designated **C-330-331.**

On the south façade are five garage bays on the first floor with steel overhead track doors. Between the doors are rectangular louvered vents. The upper faç lacks fenestration except for four exhaust vents. Projecting from the main block of the building are three sets of rectangular exhaust ducts grouped togethe sections of three. From the central bay of the building is a tie line which connects with Building C-333 and is designated as **C-331-333**. This tie line is enclo with sheet metal and rests on steel piers.

The east façade of the building has a pedestrian entrance on the first floor with a steel and glass door. This façade also has a pedestrian entrance on the sec story accessed by a steel staircase. Projecting from this façade are two bays of exhaust ducts on the upper façade and metal exhaust vents. On the first floor rectangular louvered vents.

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7-12-11

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-331-333-A Enclosed Bridge

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 * /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 300 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
O / metal piping original
O / metal piping replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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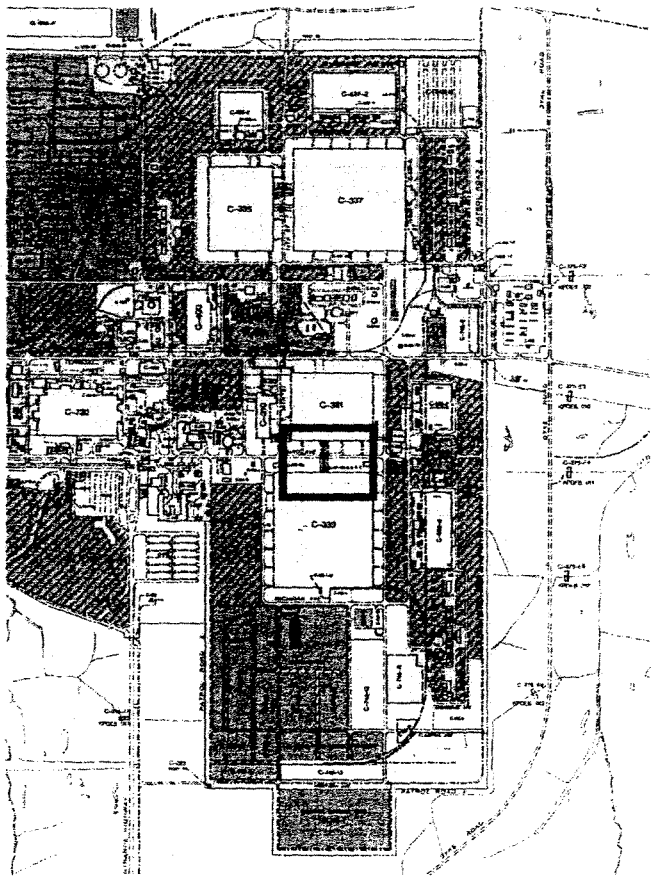
7242

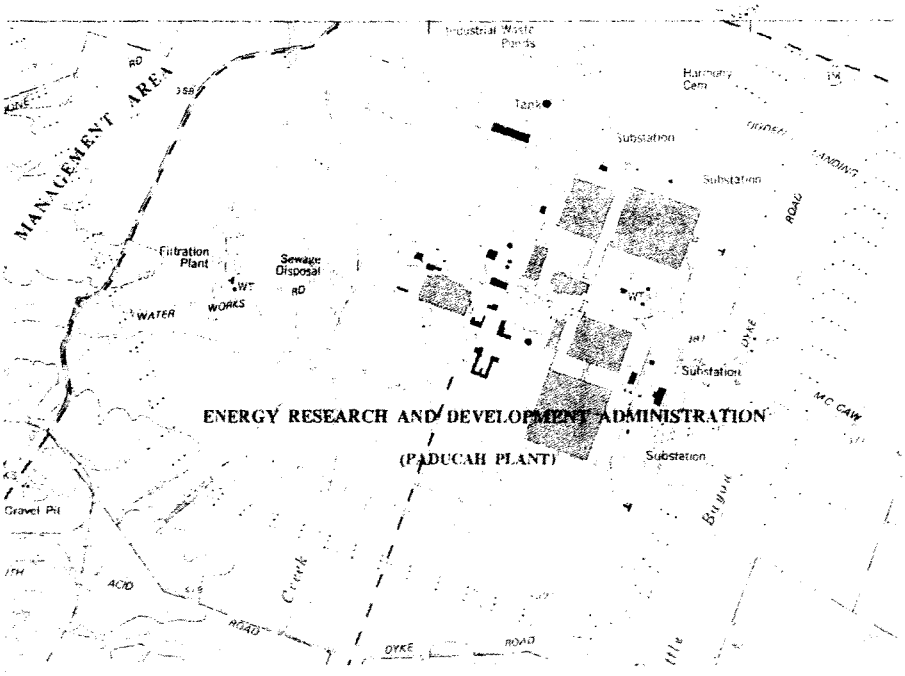
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-11

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The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant
Building No. C-331-333-B Tie Line (East) &
C-331-333-C Tie Line (West)

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 300 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
O / metal piping original
O / metal piping replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications

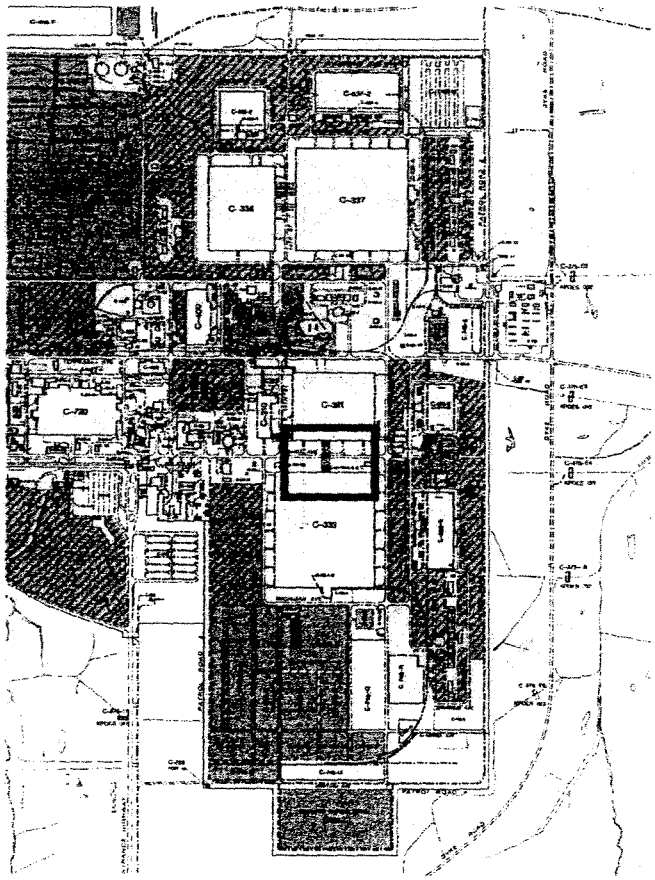
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH 7-12-4

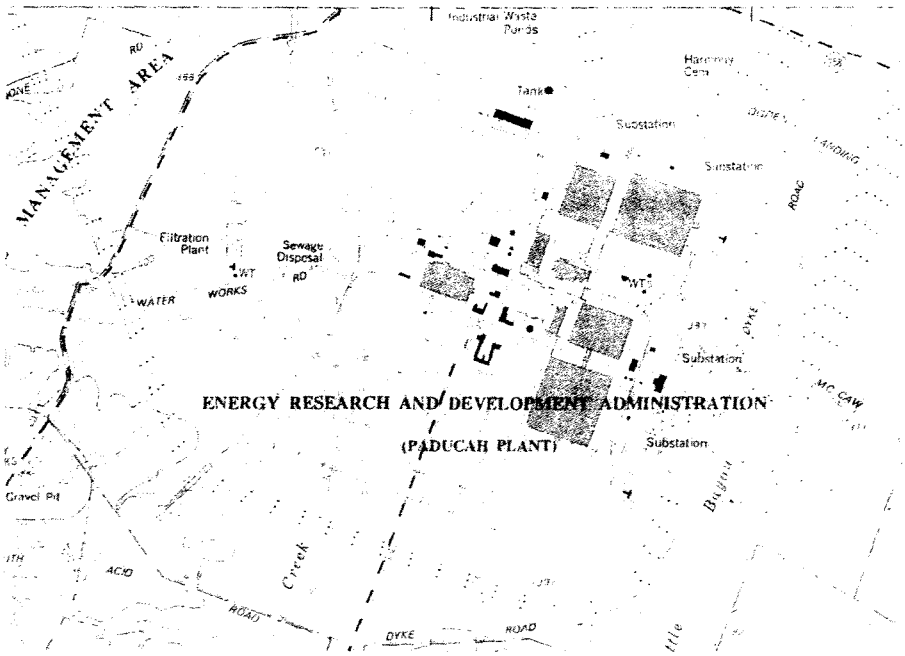
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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~~OFFICIAL USE ONLY~~

7-12-12

KENTUCKY HISTORIC ...
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-103 Administration Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /

12. CONSTRUCTION DATE: 1 / _____ estimated
/ / / / _____ documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS:
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / split face concrete block original
O / split face concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

Surveyed by mistake-constructed after period of significance

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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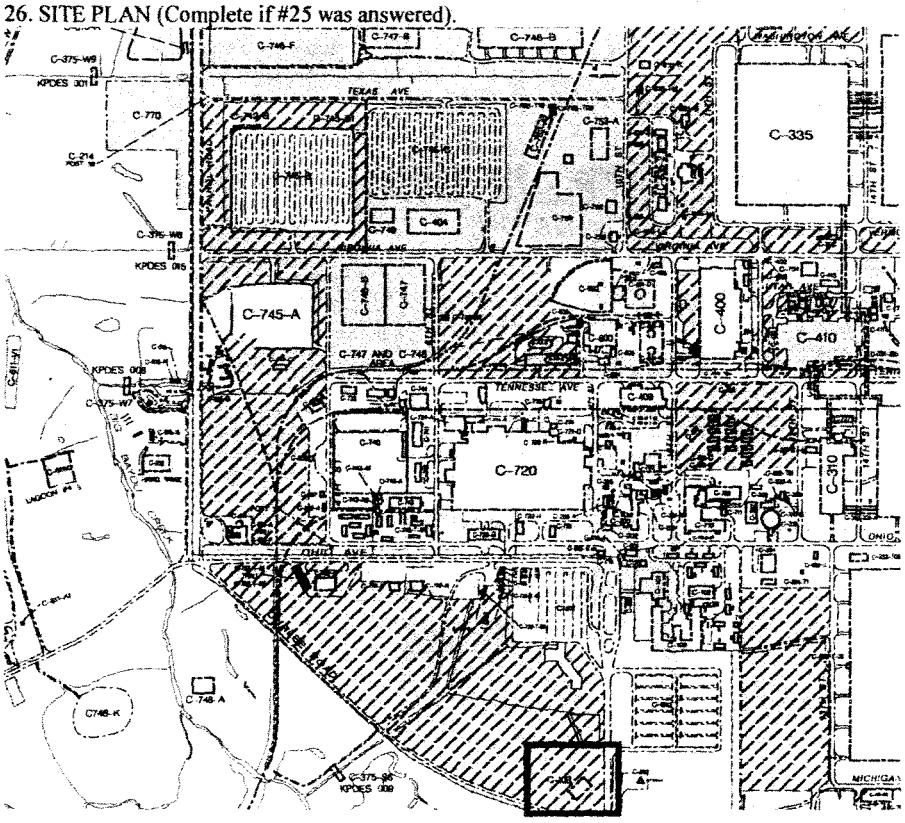
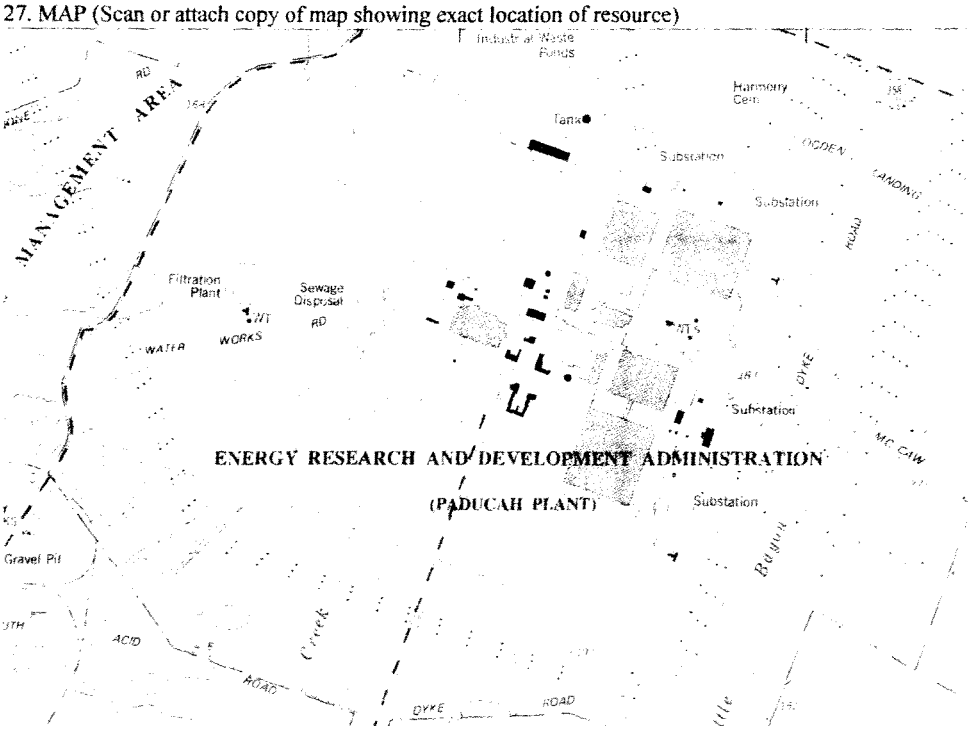
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

TH 7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

C-103 is the DOE Office Facility. This is a one-story administrative building constructed of concrete block. The building has a concrete foundation, a built-up, flat roof and an exterior of split-face concrete block. On the main (south) façade is a central, projecting, entry bay with a flat roof and an entrance with an aluminum and glass double doors. The main façade has eight window bays with paired, fixed, aluminum and glass windows. The west façade has five bays of similar windows while the east façade has four window bays and a central entrance with a solid steel door. The north façade has ten window bays and a central entrance with solid steel door. At the roofline is metal coping.

7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-123
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-331-335 Tie Line

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 38 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 300 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
Q / metal piping original
Q / metal piping replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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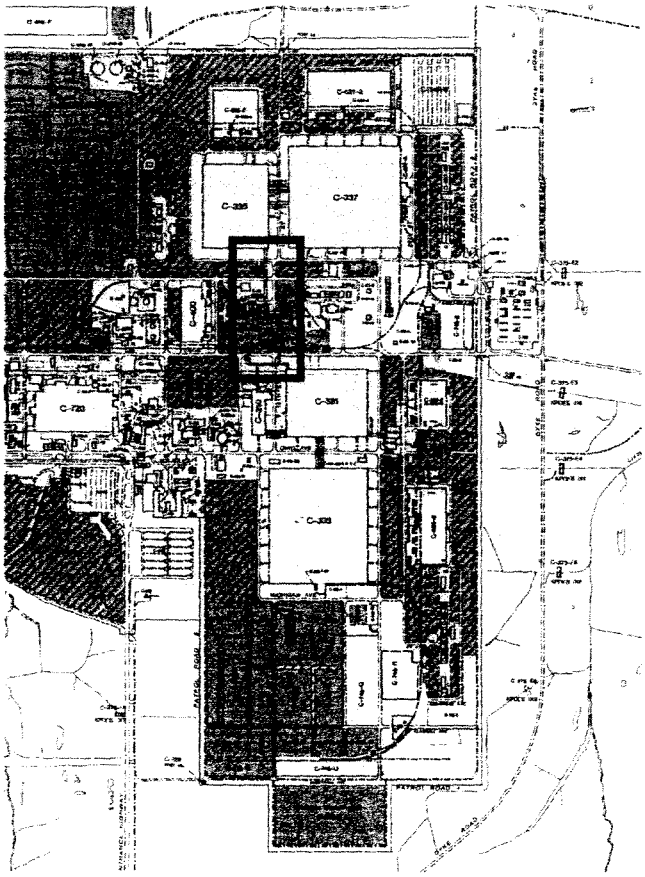
7-12-12

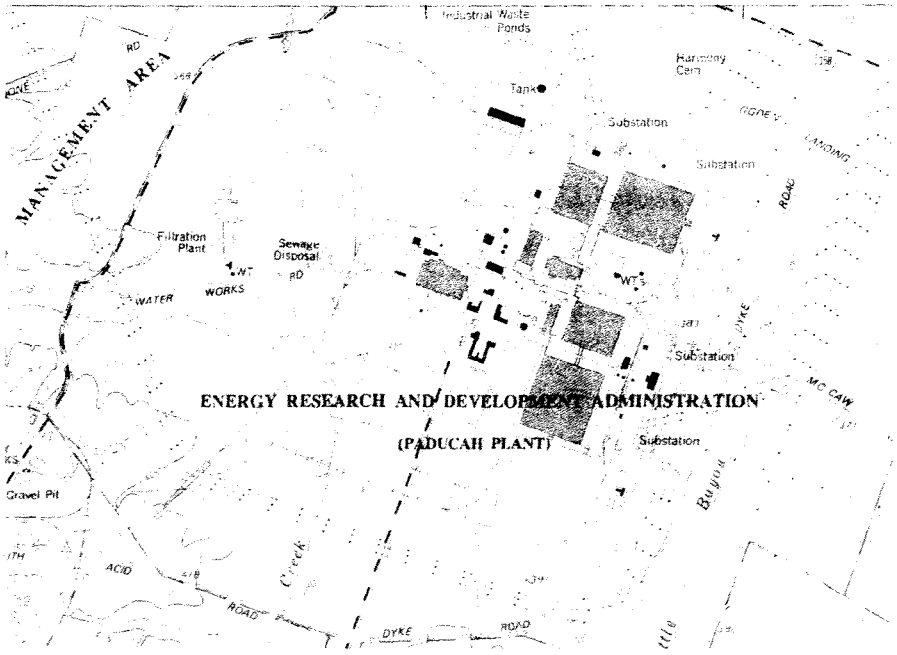
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-331- 410 Tie Lines

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 629 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
O / metal piping original
O / metal piping replacement

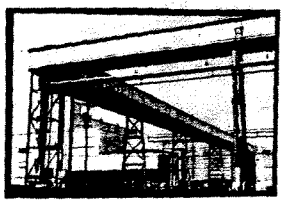
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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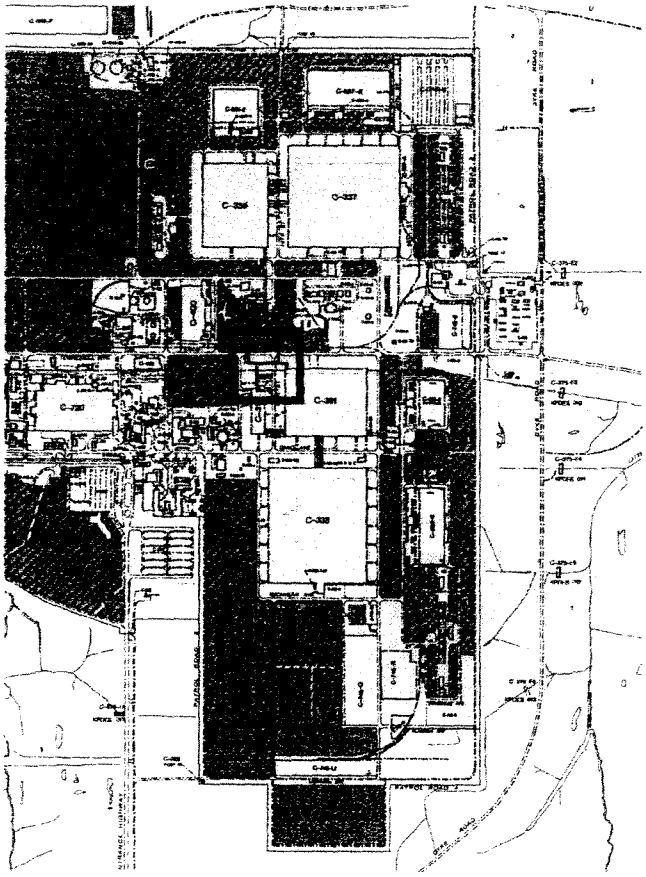
7-12-12

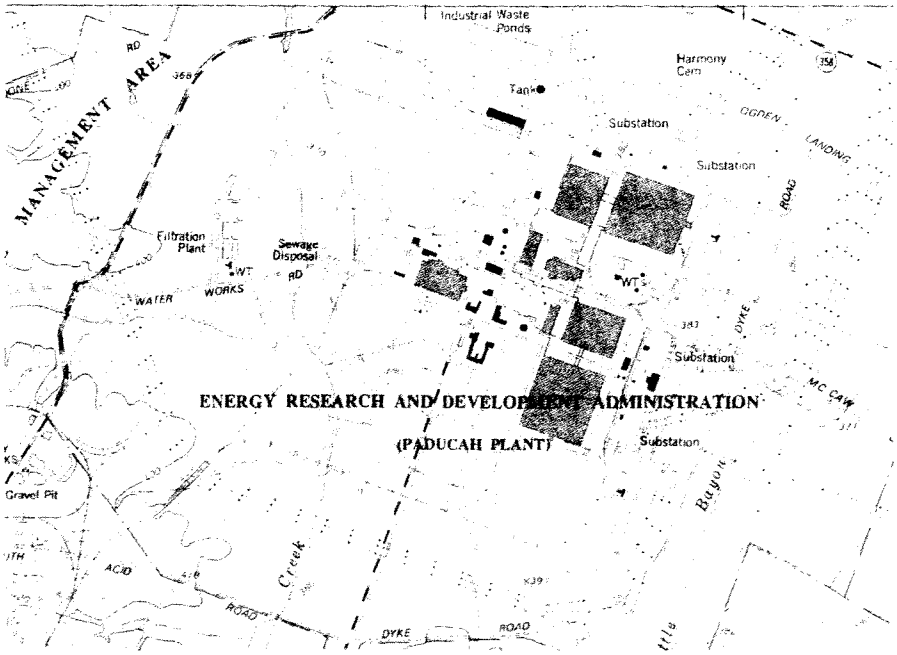
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-13-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectic of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge ar Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secor phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

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7-16-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-123
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-333 Process Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/ _____
_____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete and steel original
X / X / reinforced concrete and steel subsequent

15. DIMENSIONS: 2130120 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____; _____/ _____ first
____/ _____; _____/ _____ second
____/ _____; _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

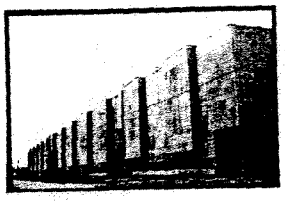
21. ROOF CONFIGURATION/COVERING:

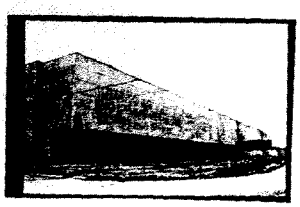
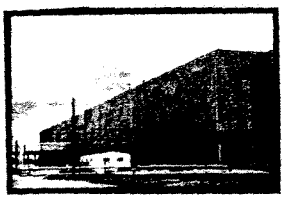
CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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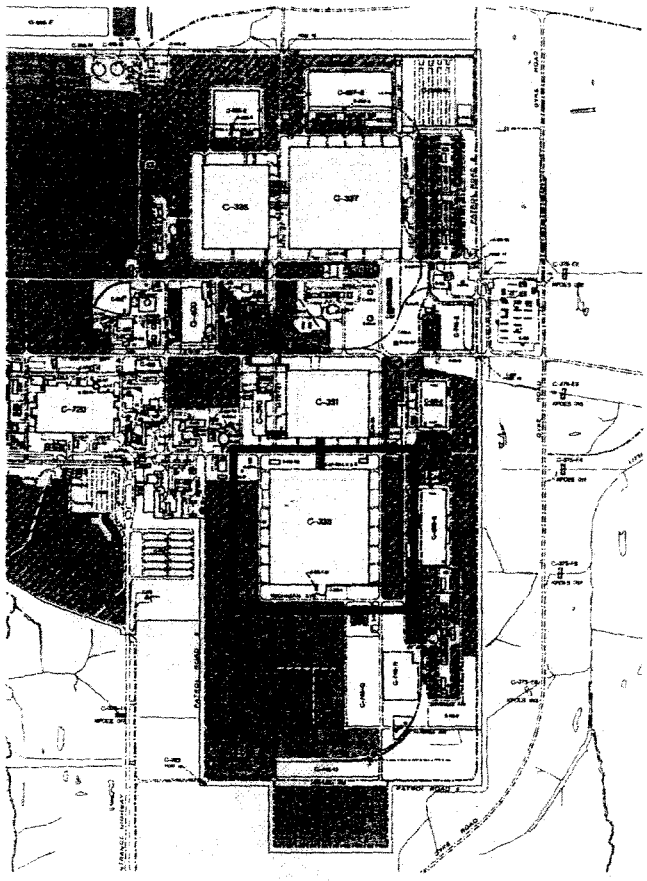
7-12-12

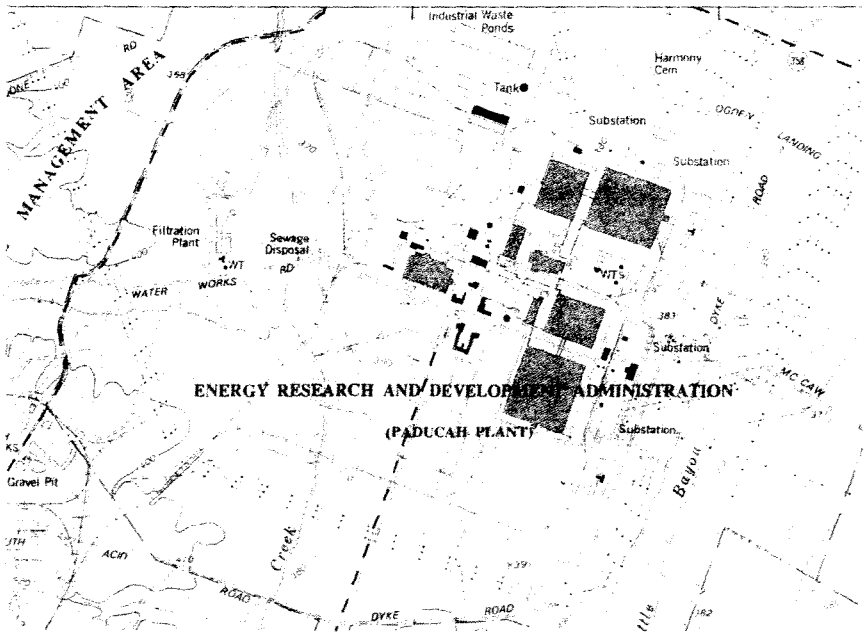
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 an enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the to floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or gree salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichmen system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processin buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-23 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Produc Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-31 the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, th Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roof and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block an sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C 333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 ar smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction an circular design.

Building C-333 is a large processing facility and contains the cascade machinery used in the gaseous diffusion extraction process. The building was complete in 1952. The building has a poured concrete foundation, a flat, built-up roof and exterior walls of transite panels. The main (N) façade has a recessed or incise first floor level. This level has a series of steel posts which support the upper façade above. This first floor level has five pedestrian entrances. Each entrance set within a concrete block surround and has original, three-panel, sliding track, steel doors. With the exception of these doors, the first floor level lack fenestration and the exterior wall material is of transite panels. The upper façade of the north elevation is also of transite an in the center of the building is a original, two-light, steel and glass door which leads to an exterior wall steel staircase. There are three, elevated bridge, or tie lines, which connect buildings C 333 and C-331 on the north façade. Designated C331-333A, B and C, these are enclosed walkways of structural steel. They have elliptical roofs and walls steel panels and rest on a steel post foundation. With the exception of three exhaust fans and the tie line, the upper façade lacks additional fenestration.

The east façade of the building has twelve projecting exhaust ducts on the upper level. The first floor level is composed of a continuous band of rectangul louvered windows which have metal grills instead of glass. These windows are grouped together in a series of five opening each divided by steel mullions. Belc the windows are rectangular steel panels. The windows are continuous except for the garage bay openings on this façade. There are five garage bays on th façade which have original steel overhead track doors. Adjacent to each garage door are pedestrian doors of steel design. These doors have had their gla lights covered with steel panels. The upper façade lacks fenestration except for six exhaust vents and two pedestrian doors near the northeast and southea corners of the building. These doors are of two-light, steel and glass design and lead to exterior wall steel staircases. Attached to this façade are two structu support systems for the electric cables. These support systems are held by steel posts and protect and enclose the electric lines coming from the transformers the building.

The west façade of the building has twelve projecting exhaust ducts on the upper façade. This façade also has window and door openings similar to those on east façade. This façade also features a projecting entrance bay at the center of the façade which contains a garage entrance bay. This entrance has a tv panel, steel overhead track door. Adjacent to this entrance is a pedestrian door of single-light, steel and glass design.

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The south façade of the building has a recessed or incised first floor level. This recessed area contains a railroad spur line and opening onto this spur line are five entrances. The lower level of this façade has steel posts which support the upper façade above. The upper façade on this elevation lacks fenestration. The entrances on the first floor are set within concrete block surrounds and are original, three-panel sliding track steel design doors. This façade has a one-story, loading dock wing. This wing is open on the east façade and contains a 20-ton steel crane for loading processing materials. The roof of the west and south walls of this wing are of transite panels.

Attached to the south wall of this loading dock wing is a one-story concrete block building, **C-333-A** which is a Feed Vaporization Facility added in 1962. This wing has a concrete foundation, a flat built-up roof and exterior walls of concrete block. On the east façade is a fixed, twelve-light, steel and glass window. On the south façade of **C-333-A** are four entrances with original, solid steel single-light, and four-light steel and glass doors. Windows on this façade are original, nine-light, steel and glass hinged design. On the west façade are two entrances with original, four-light, steel and glass doors.

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7-12-2

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-333-A Feed Vaporization Facility

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 8305 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

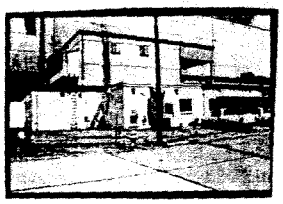
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications

(SEE CONTINUATION PAGE)

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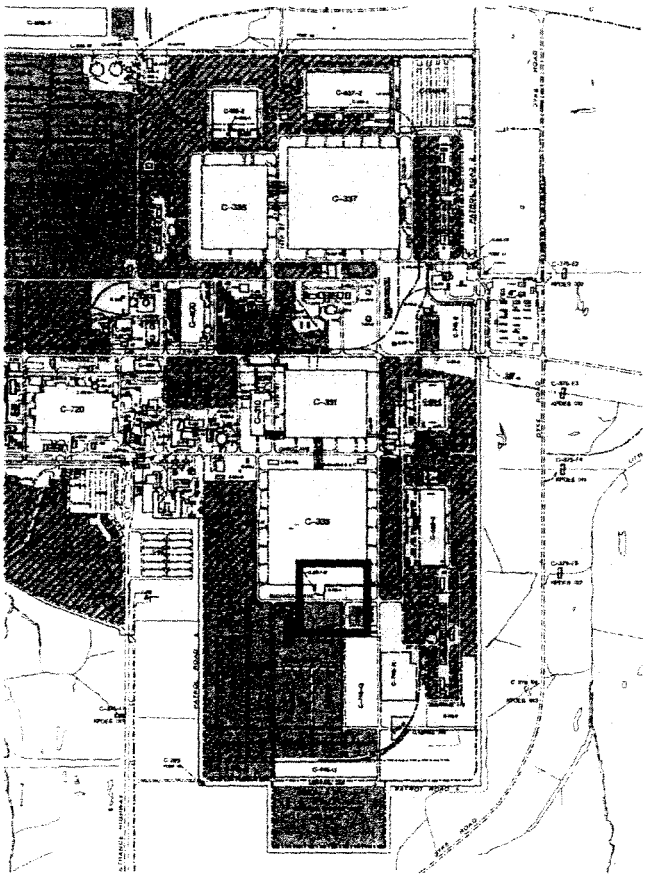
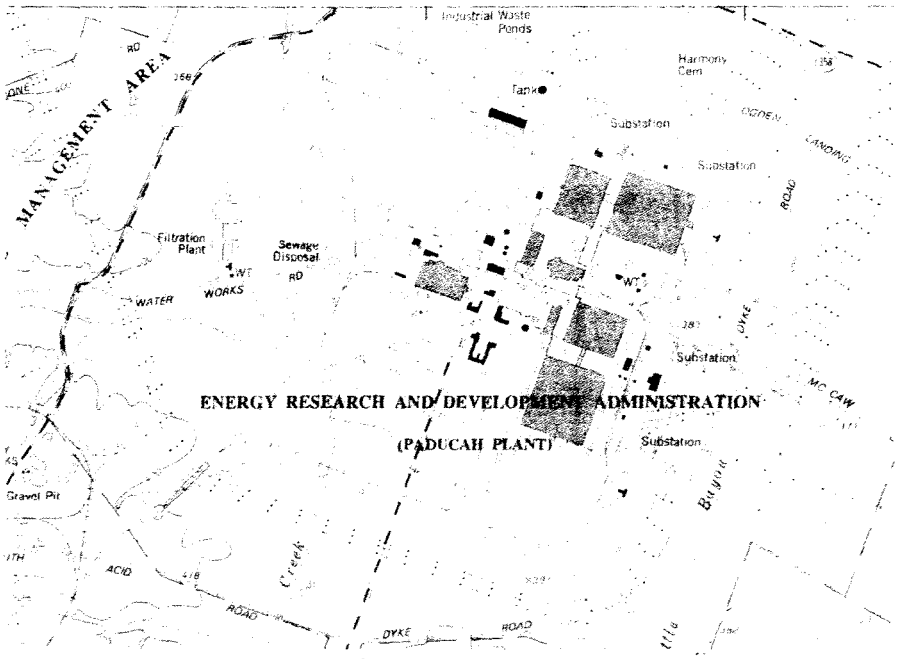
25. SUPPORT RESOURCES: SITE PLAN KEY | FUNCTION | CONSTRUCTION DATE | METHOD/MATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

Attached to the south wall of this loading dock wing of Building C-333 is a one-story concrete block building, **C-333-A** which is a Feed Vaporization Facility added in 1952. This wing has a concrete foundation, a flat built-up roof and exterior walls of concrete block. On the east façade is a fixed, twelve-light, steel and glass window. On the south façade of **C-333-A** are four entrances with original, solid steel single-light, and four-light steel and glass doors. Windows on this façade are original, nine-light, steel and glass hinged design. On the west façade are two entrances with original, four-light, steel and glass doors.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-127
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-335 Process Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete and steel original
X / X / reinforced concrete and steel subsequent

15. DIMENSIONS: 1029120 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

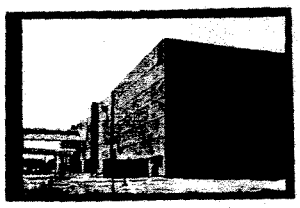
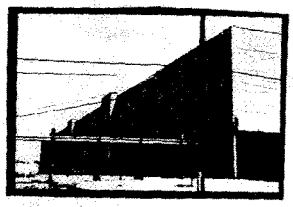
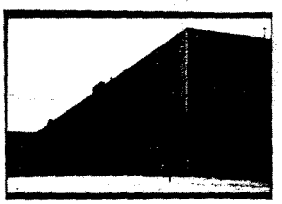
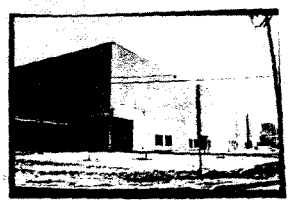
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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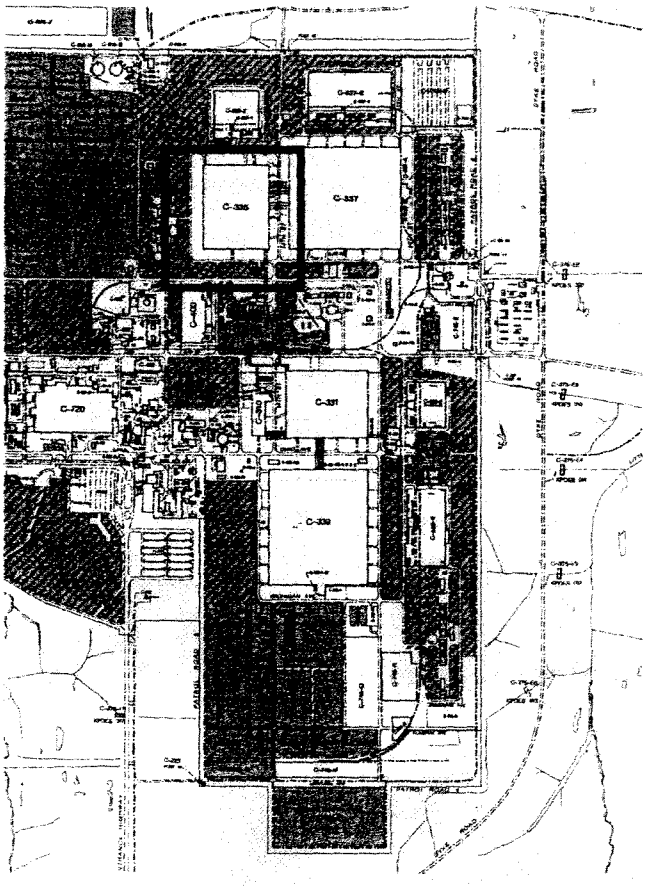
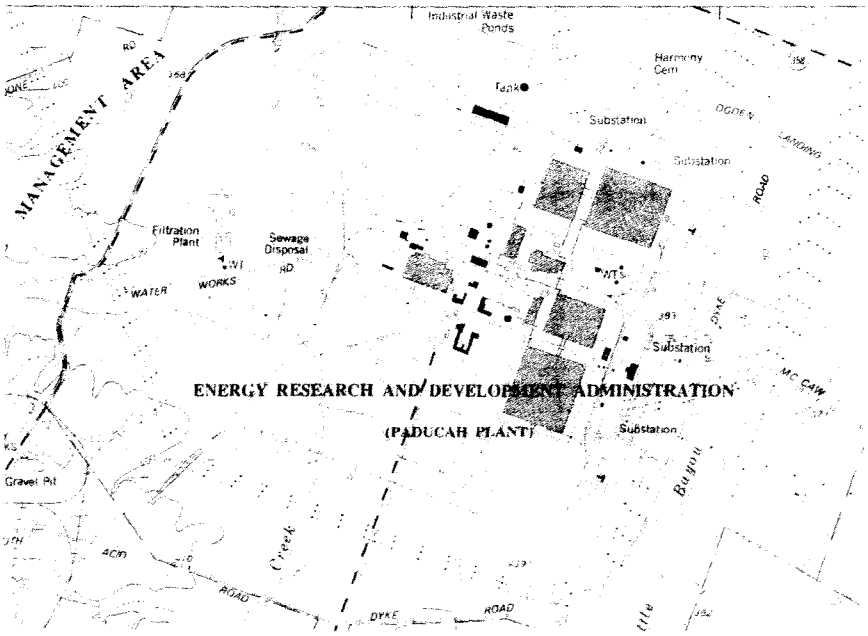
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-13

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Building C-335 is a processing building and contains cascade machinery used in the gaseous diffusion process. The building was constructed and placed in service in 1954. The building has a poured concrete foundation, flat built-up roof and an exterior of transite panels. On the west façade, the first floor section is incised with the upper story supported by steel posts. This recessed first story has four entrance bays set within concrete block surrounds. Each entrance bay has paired, sliding track steel doors. Between the entrance bays are rectangular, louvered steel vents. On the upper façade is a pedestrian entrance which has an original, two-light, steel and glass door. This door is accessed by an exterior wall steel staircase. The upper façade on this elevation has three rectangular projecting bays of transite panels which each enclose three exhaust ducts. There is no other fenestration on this façade except for four pairs of steel exhaust vents.

The north façade is composed primarily of transite panels with projecting exhaust ducts. The first floor of the building has a series of rectangular, steel louvered vents. In the central bay is a two-light, steel and glass door on the second story which is accessed by an exterior wall staircase. Projecting from the upper façade are two, rectangular bays. At the northeast corner of the façade is a garage bay entrance with an overhead track steel door.

The east façade of the building has five pedestrian entrances on the first floor with original, single-light and two-light, steel and glass doors. This façade also has five garage bays with both original sliding track and overhead track steel doors. On the first floor of this façade are a series of rectangular louvered vents. On the upper façade is a two-light, steel and glass door accessed by a steel staircase. The upper façade has three, projecting, rectangular bays with transite sided panels. This upper façade also has four pairs of exhaust vents.

The south façade of the building is composed primarily of transite panels with projecting exhaust ducts. The first floor of the building has a series of rectangular louvered steel panels. In the central bay of the upper façade is an original, two-light, steel pedestrian door accessed by an exterior wall staircase. The upper façade of this building has two projecting, rectangular bays of transite panels. On the east façade of the building are three, enclosed steel tie lines which connect with Building C-337 and are designated as **C-335-337 A, B & C**. On the south façade is a tie line which connects C-335 with C-331 and is designated as **C-331-335**.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY: McCracken
RESOURCE # MCN-128
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-335-337-A Enclosed Bridge

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 200 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
O / metal piping original
O / metal piping replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ___ / ___ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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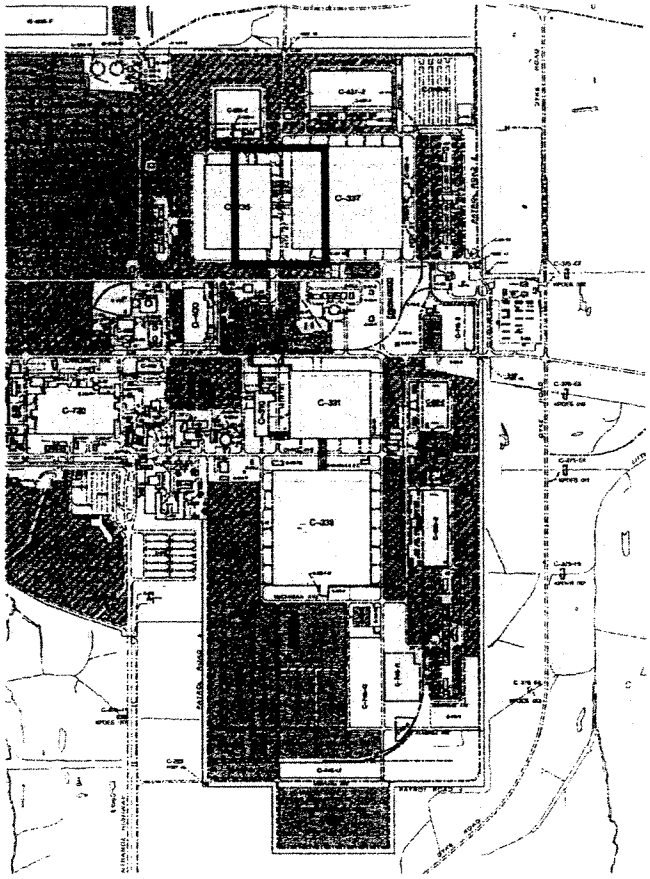
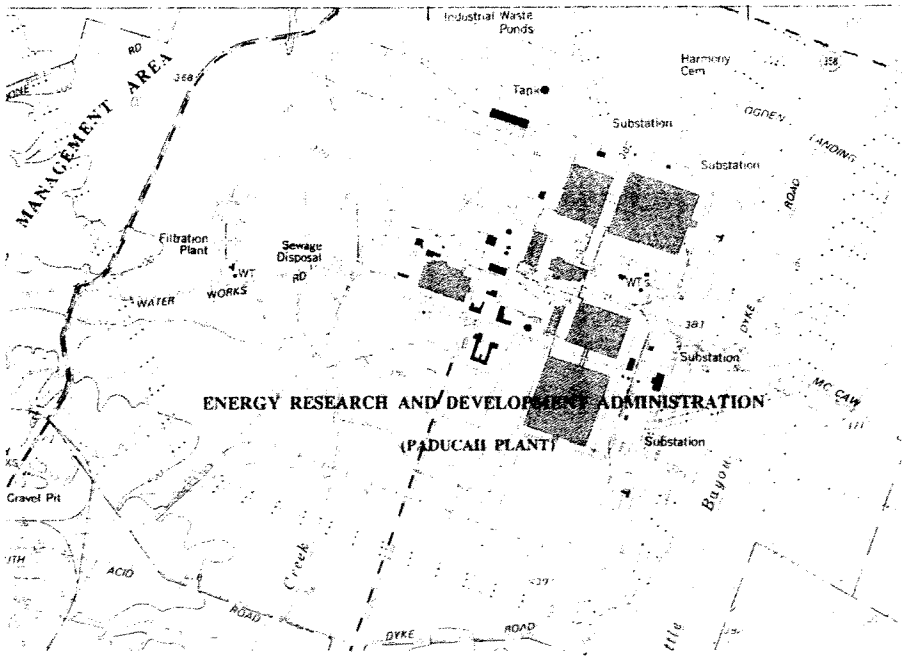
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-2

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

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INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-129
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant
Building No C-335-337-B Tie Line (North) & C-335-337-C Tie Line (South)

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal piping original
X / X / metal piping subsequent

15. DIMENSIONS: 200 linear feet
Height _____ Width _____ Depth _____

16. PLAN:
O / linear first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 /	0 /	original
0 /	0 /	replacement

20. PRIMARY WALL MATERIAL:
Q / metal piping original
Q / metal piping replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	8 /	original
0 /	8 /	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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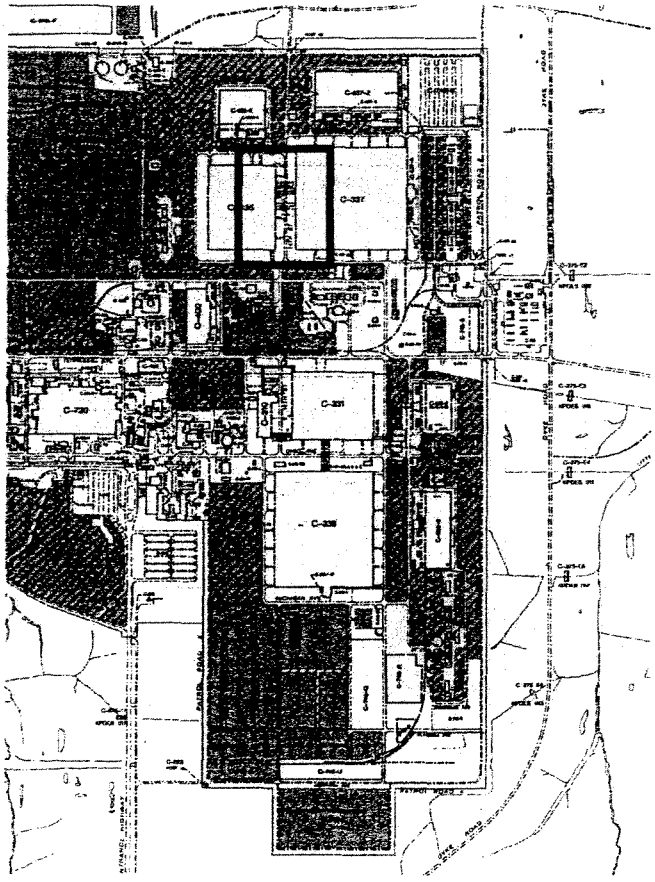
7-12-4

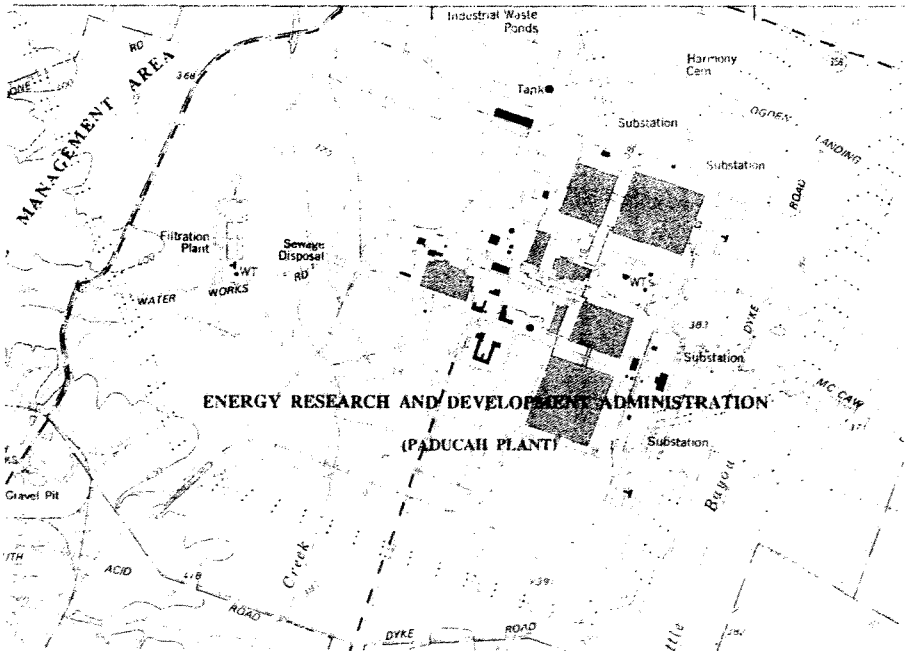
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-130
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-725 Paint Shop

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

° INITIATION: 3 / Review and Compliance

THER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / 1961 estimated
1 / 9 / 6 / 1 / 1961 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 410 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

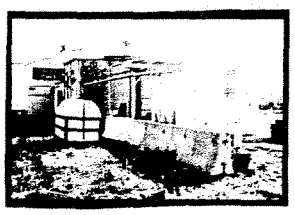
21. ROOF CONFIGURATION/COVERING:

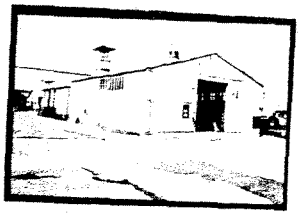
CONFIGURATION	COVERING	
A / side gable	8 / steel panels	original
A / side gable	8 / steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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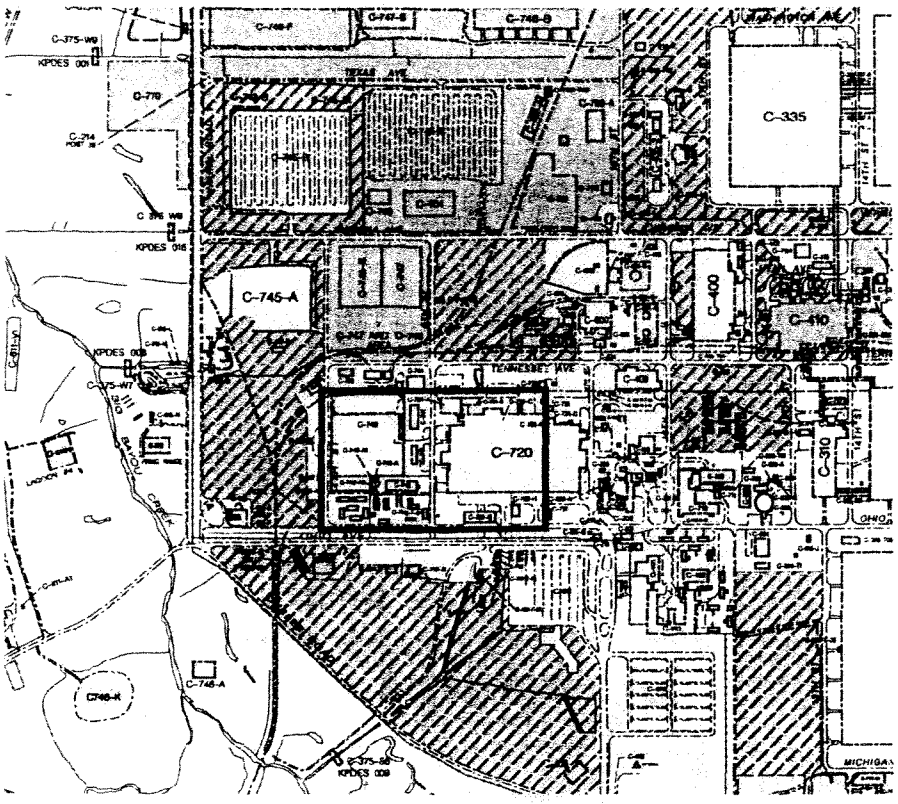
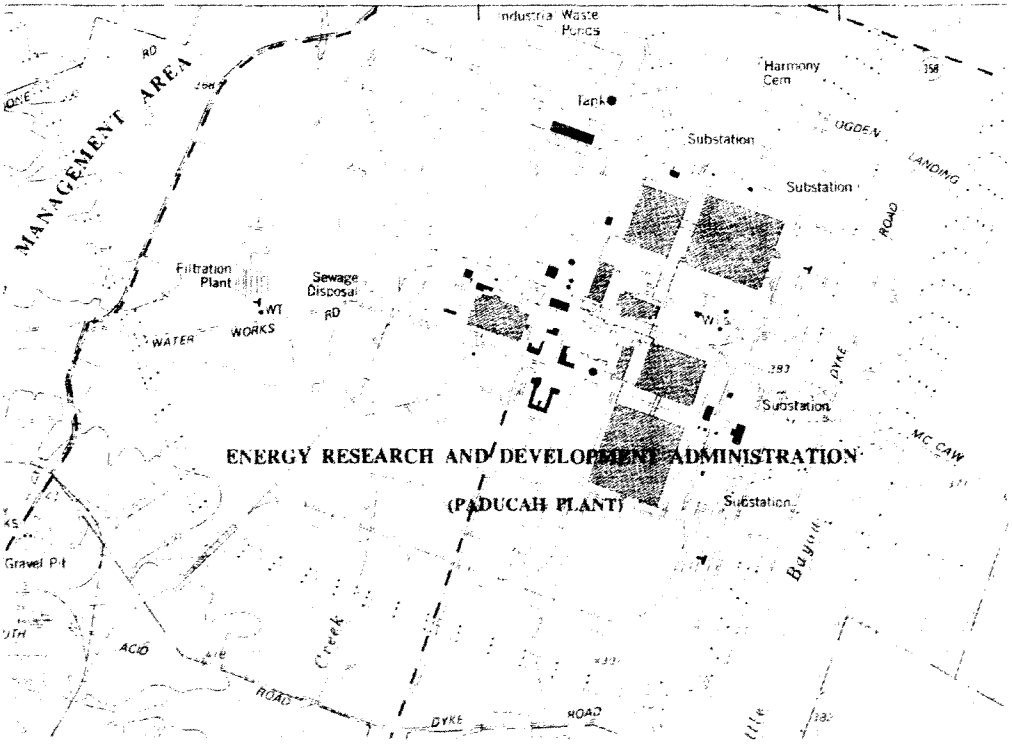
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

C-725 is a one-story steel building constructed in 1961 which has a gable roof of steel panels, an exterior of steel panels and a concrete foundation. The west façade has a bank of three, eight-light steel and glass windows. At the roofline is a circular vent. On the main (North) façade is a garage bay with an overhead, steel, roll-up door. This façade also has a single-light glass and steel pedestrian door. On the east façade is a bank of three, eight-light steel and glass windows. At the rear (South) façade is an open-air, steel wing with a metal shed roof.

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7-12-12

KENTUCKY HISTORIC RESOURCES

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-131
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-337 Process Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 2130120 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
O / rectangular first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

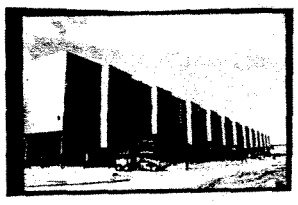
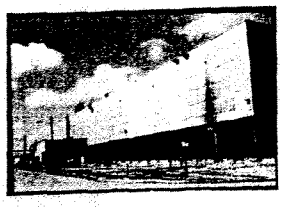
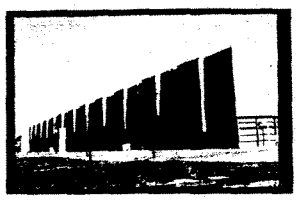
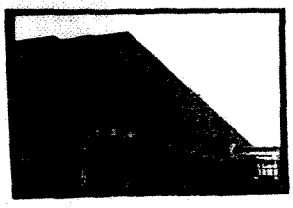
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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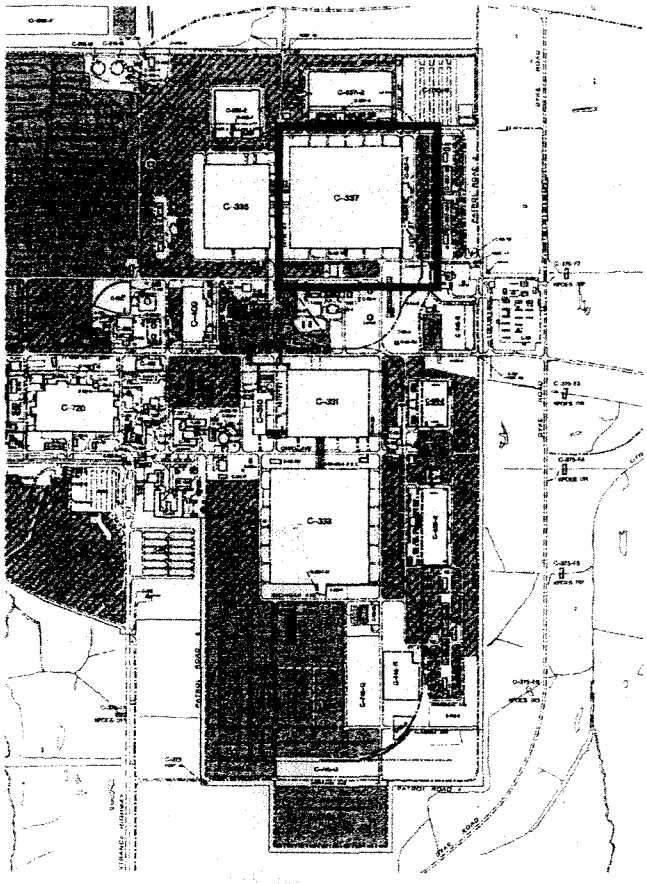
7-12-12

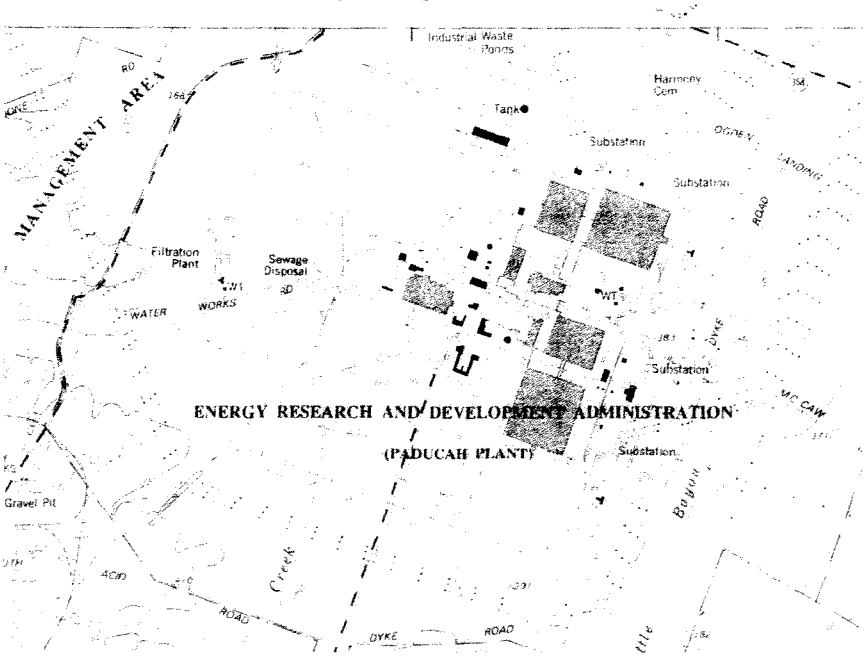
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

Building C-337 is a large processing building which contains cascade machinery used in the gaseous diffusion process. Constructed in 1954, Building C-337 is a two-story, rectangular plan building of steel frame construction. The building has a poured concrete foundation, a built-up flat roof and exterior walls of transite panels. The west façade has an incised first floor section with the upper façade supported by steel posts. The first floor has five entrance bays which have concrete block surrounds. Each entrance has original steel sliding track doors. The upper facade lacks fenestration except for three, metal exhaust vents and six pipes which connect at grade with large pipes extending to Building C-335. The west façade also has three tie lines, **C-335-337 A, B & C** which connect with Building C-335. These tie lines are of corrugated steel construction and are supported by steel posts.

The north façade has five garage bays which have original steel overhead track doors. Adjacent to each of the garage bays are pedestrian doors of original, two-light, steel and glass design. Between these entrances are continuous openings of rectangular, louvered steel vents. On the upper façade of the building are twelve projecting exhaust ducts with transite panels. On the upper façade are also three pairs of steel exhaust panels. This elevation has two entrances on the upper façade with two-light steel and glass doors which are accessed by steel staircases.

The south façade of the building is identical to the north façade which has five garage bays with original steel overhead track doors. Adjacent to each of the garage bays are pedestrian doors of original, two-light, steel and glass design. Between these entrances are continuous openings of rectangular, louvered steel vents. On the upper façade of the building are twelve projecting exhaust ducts with transite panels. On the upper façade are also three pairs of steel exhaust panels. This elevation has two entrances on the upper façade with two-light steel and glass doors which are accessed by steel staircases. The only variation is the central projecting bay on the first floor which has a garage bay with a two-panel, steel overhead track door and a two-light, steel and glass pedestrian door.

The east elevation of the building is also incised and has steel posts supporting the upper façade. This façade has two entrances set within concrete block surrounds and with sliding track steel doors. The upper façade lacks fenestration except for two steel exhaust fans. Attached on this façade is a two-story wing designated at **C-337-A,** a Feed Vaporization Facility built in 1960. This wing is composed of two sections; a one-story section of concrete block and a large, two-story section of steel frame. The two-story section has an exterior of transite and fiberglass panels. On the east façade of this section is a garage bay with a steel

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overhead track door. The one-story, concrete block wing has two entrances on the main (east) façade. The south bay entrance has an original, four-light, steel and glass door. The north bay entrance has ca. 1980, double doors of single-light , steel and glass design. On the north façade of this wing is a ca. 1980, single-light, steel and glass door. Attached to the south façade of Building C-337-A is a twenty-ton crane and track system for loading and unloading steel cylinders. To the south of this crane, the incised section of the main building is enclosed with steel panels. This creates a protected enclosure for the railroad track that extends into this area.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY: McCracken
RESOURCE # MCN-132
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-337-A Feed Vaporization Facility

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 6 / 0 / 1960 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
X / X / steel frame subsequent

15. DIMENSIONS: 8556 ft²
Height 1 & 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
Q / transite and fiberglass panels replacement

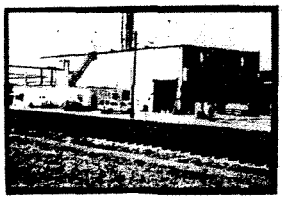
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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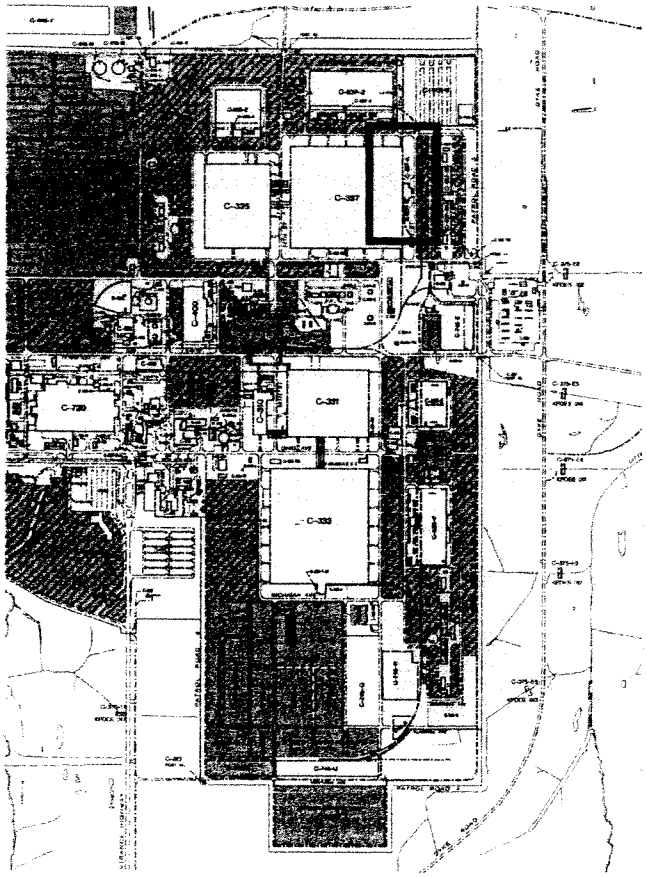
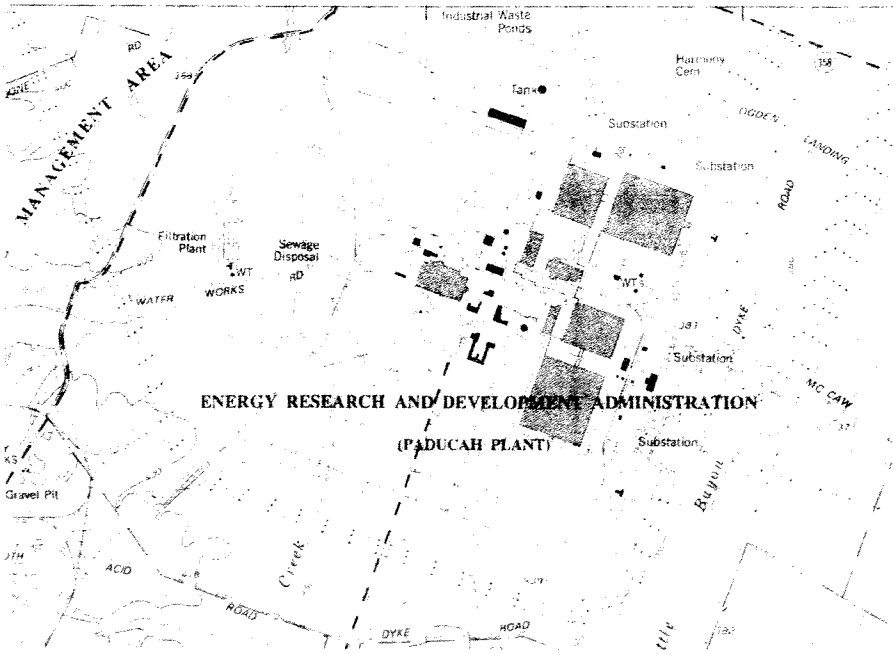
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

Attached on the east façade of C-337 is a two-story wing designated at **C-337-A**, a Feed Vaporization Facility built in 1960. This wing is composed of two sections; a one-story section of concrete block and a large, two-story section of steel frame. The two-story section has an exterior of transite and fiberglass panels. On the east façade of this section is a garage bay with a steel overhead track door. The one-story, concrete block wing has two entrances on the main (east) façade. The south bay entrance has an original, four-light, steel and glass door. The north bay entrance has ca. 1980, double doors of single-light, steel and glass design. On the north façade of this wing is a ca. 1980, single-light, steel and glass door. Attached to the south façade of Building C-337-A is a twenty-ton crane and track system for loading and unloading steel cylinders. To the south of this crane, the incised section of the main building is enclosed with steel panels. This creates a protected enclosure for the railroad track that extends into this area.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-133
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant
Building No. C-340 – Metals Plant Complex/Powder Building D & D
(C-340-A, B, C, D, E)

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 5 / 1955 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 67428 ft²
Height 1-3 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

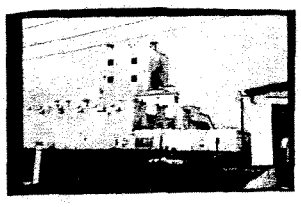
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: 2 / moderate

23. MODIFICATION: 0 / not applicable

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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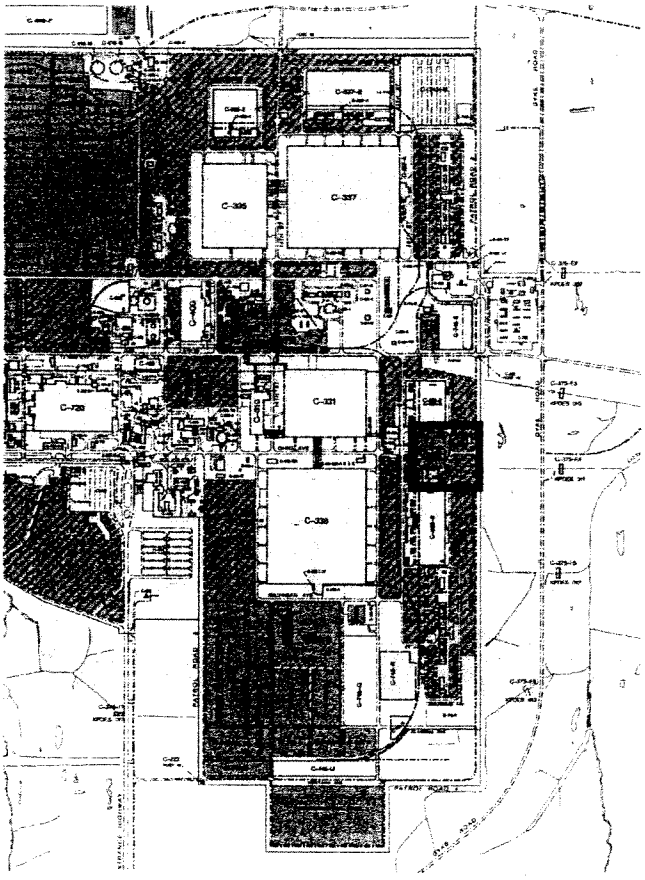
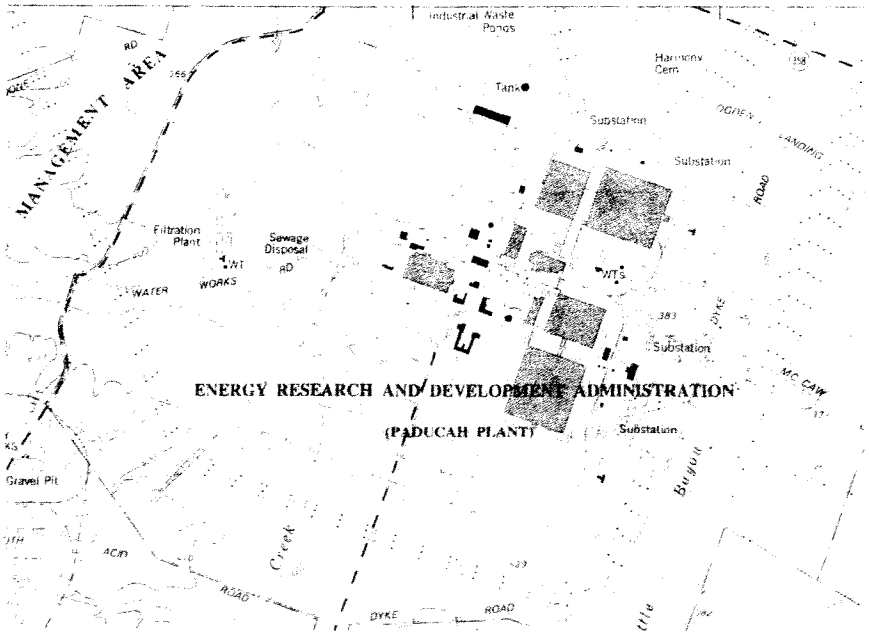


27. MAP (Scan or attach copy of map showing exact location of resource)



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Building C-340, The DOE Metals Plant Complex consists of seven interrelated buildings or wings completed in 1955. The building is presently undergoing decontamination prior to its demolition. The main section is a five-story, steel and concrete building. The building has a poured concrete foundation, a built-up, flat roof and an exterior of transite panels. On the west façade on the first floor is an entrance with a sliding track steel door. On the upper façade are louvered exhaust vents and six-light fixed windows. On the north façade of the building are large louvered vents and fixed, two-light steel windows. The north façade has three wings which extend in a stepped progression from the façade. The four-story wing projects from the façade of the building and has an exterior of transite panels. Above the four-story wing, on the main section are two pedestrian entrances on the fourth and fifth floors. These entrances have original two-light, stee and glass doors connected by a steel staircase.

The three-story wing has a conveyor that connects with **Building C-340-D**. Extending from the roof of the three-story wing is a concrete bay with a gable meta roof and paired, twelve-light steel and glass windows. In the first floor of this wing on the west façade is a garage door with an overhead track steel door. On the north façade of this wing is a pedestrian entrance with a two-light, steel and glass door. Also on the west façade is an attached circular storage tank of hollow core tile. This tank rests on a raised concrete pier foundation. Attached on the north facade is a one-story wing with a flat, built-up roof. This wing has two garage bay entrances on the west façade with steel overhead track doors. The north façade of this wing lacks fenestration except for rectangular louvered vents. The east façade of the building has three pedestrian entrances located in the one and two-story wing with original two-light, steel and glass doors. The remaining fenestration on the one- and two- story wings on this façade has rectangular, louvered vents.

In the upper façade of the fifth-story section of this façade are rectangular louvered vents. Attached to the south façade of the two-story section is a one-story concrete block wing. This wing has original twelve-light steel windows. These windows have a central four-light hinged panel and several windows have added metal panels. On the south façade of this wing are eight window bays and an entrance with an original two-light steel and glass door. The south façade of the five-story section lacks fenestration on the upper facades. The first floor has two, garage bays with overhead steel track doors. On the east façade of the two story wing is a garage bay with an overhead steel track door.

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COUNTY McCracken
RESOURCE # MCN-133
GROUP # _____
_____ IDENTIFICATION ___INTENSIVE
CATEGORY #'S _____
PAGE 4 OF 4 PAGES

KENTUCKY HISTORIC RESOURCES
CONTINUATION SHEET
(KHC-91-4)

Building C-340-D is attached to C340 complex via a conveyor system. Building C-340-D is a one-story, pre-fabricated metal building. The building has a poured concrete foundation, a gable roof of crimped metal and an exterior of crimped metal panels. On the east and west facades are fixed, nine-light, steel and glass windows. The west façade has a pedestrian entrance which has been enclosed with a solid steel door. The west façade also displays large louvered exhaust vents. The north façade has a nine-light, steel and glass window and a pedestrian entrance with a six-light and single panel steel and glass door. On the east façade is a large enclosed steel conveyor system which is attached to the west façade of Building C-340. On the east façade is also a garage bay with paired sliding track steel doors. On the south façade of the building is a garage bay entrance with sliding track steel doors.

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INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-134
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-342 Ammonia Dissociator Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
ier:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / flat roof concrete block addition 1224 ft²
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS: 1242 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

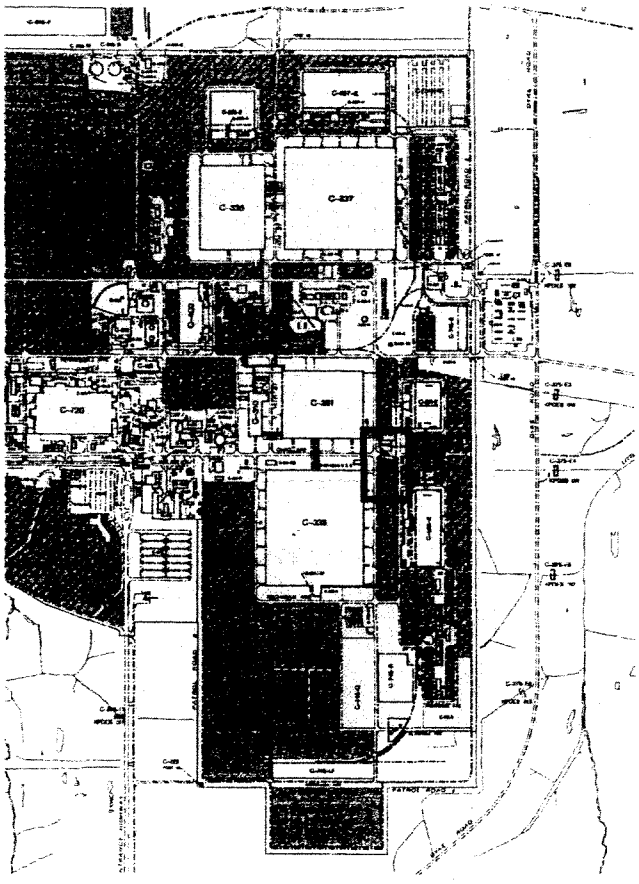
~~OFFICIAL USE ONLY~~

7-12-12

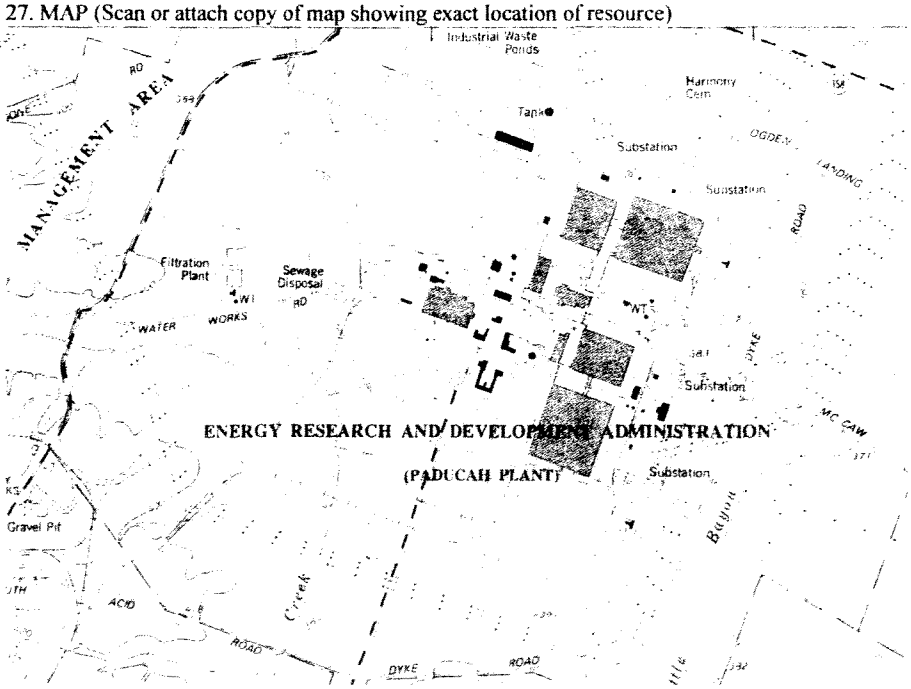
25. SUPPORT RESOURCES:

SITE PLAN KEY	FUNCTION	CONSTRUCTION DATE	METHOD/MATERIAL
Building 342-A	Ammonia Dissociator Building	ca. 1956	concrete block

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-342 is a one-story, concrete block building. It has a poured concrete foundation, a flat, built-up roof and exterior walls of concrete block. On the main (W) façade is a central bay entrance with original, three-panel steel double doors. Flanking this entrance are thirty-light, fixed steel windows with concrete sills. Also at the corners of this building are secondary entrances each with three-panel, original steel doors. At the roofline is a steel railing around the perimeter of the building. On the east façade is an entrance with an original two-light, steel and glass door. This façade also has steel louvered vents. On the west facade is an entrance with paired, six-light, steel and glass doors. This façade also has two louvered steel vents. The south façade lacks fenestration.

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-136
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-342-B Ammonia Dissociator Tank Shelter

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 2 / 1972 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: Tank Area 2304 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
I / piers	R / poured concrete	original
I / piers	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

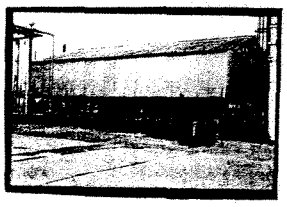
21. ROOF CONFIGURATION/COVERING:

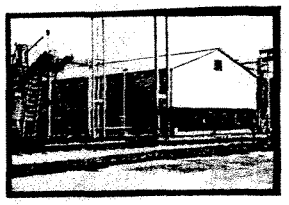
CONFIGURATION	COVERING	
Q / flat	8 / transite panels	original
Q / flat	8 / transite panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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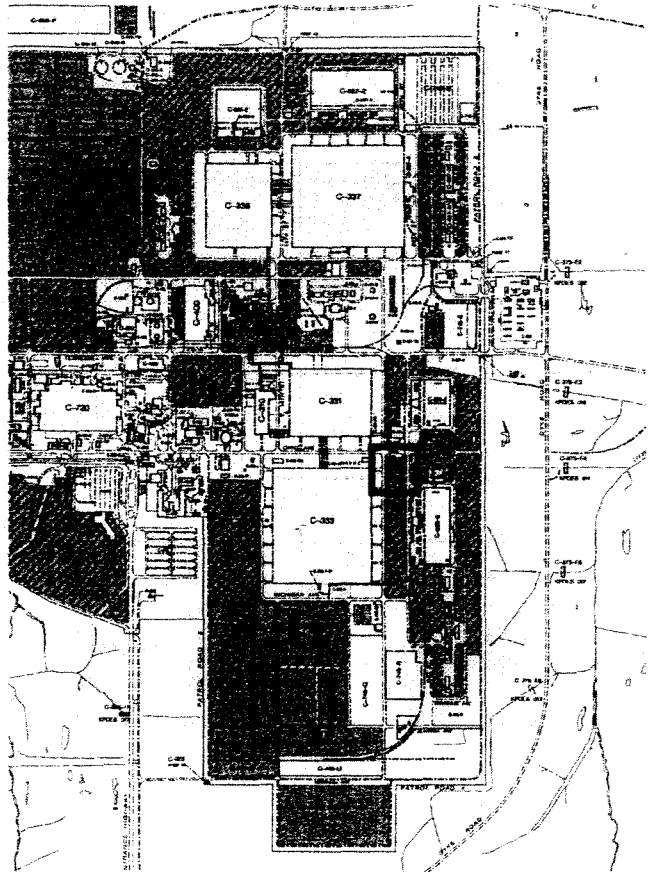
7-12-04

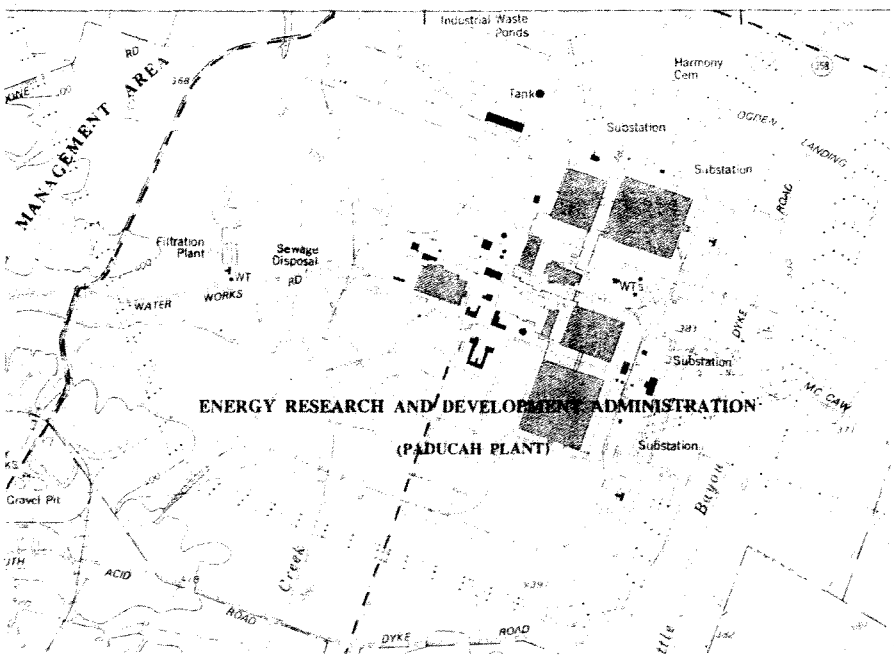
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-1

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Building C-342-B is a one-story, steel building construction to shelter cylindrical ammonia tanks. This building is raised above the tanks by steel posts which rest on concrete piers. The tanks are set within a rectangular concrete basin. The building has walls and a roof of transite panels. On the south façade is a steel staircase which leads to an entrance containing a steel door. Within this structure are two ammonia tanks.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-137
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-350 Drying Agent Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 7 / 3 / 1973 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS: 1570 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	6 / built-up	original
P / shed	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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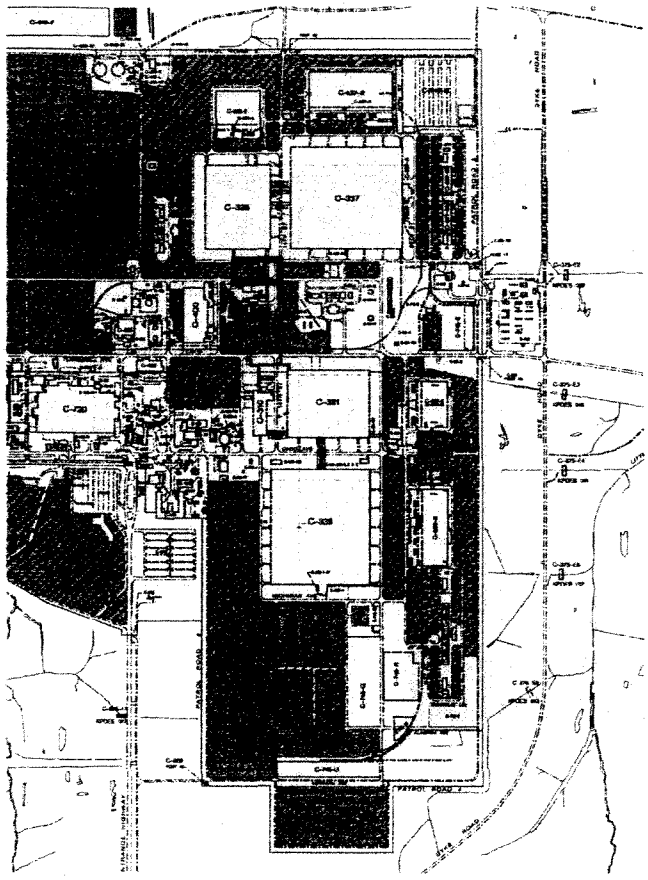
7-12-12

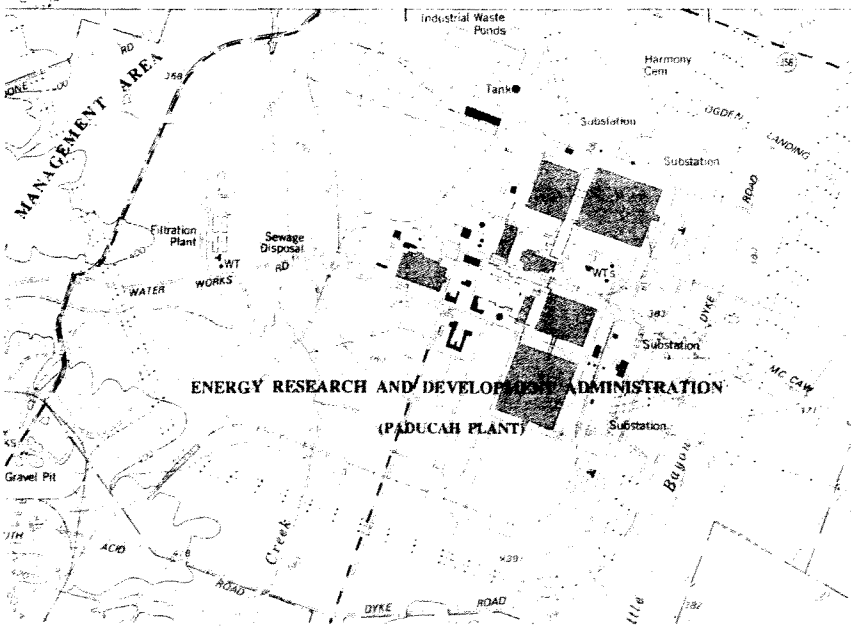
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completec in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-350 is a one-story building of concrete block construction built in 1973. It is composed of two separate buildings connected by pipes below the roofline. Both buildings have poured concrete foundations, built-up, shed roofs and exterior walls of concrete block. The east building has two entrances; the east bay has an original, single-light glass and wood door and the west bay has original double door of single-light steel and glass design. There are two windows on this façade; one is a fixed, two-light steel design and the other is a fixed, four-light steel design. On the east façade are two entrances with original, single-light, steel and glass doors. There are three windows on the south façade of four-light, fixed steel design. On the west façade are two, single-light, steel and glass doors. The west building contains a large chemical tank. On the east façade of the building is a three-light, steel and glass door. The south façade of the building has three, four-light, fixed steel windows. There is no fenestration on the north façade. On the west façade is a three-light, steel and glass door.

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TH 7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-138
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-360 & C-360-A Toll Transfer and Sampling Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 2 / 1982 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 17800 ft²
Height 1 & 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL	
2	/ continuous	R	/ poured concrete original
2	/ continuous	R	/ poured concrete replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

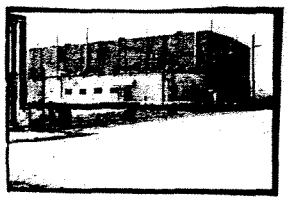
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING	
A	/ side gable	6	/ built-up original
A	/ side gable	6	/ built-up replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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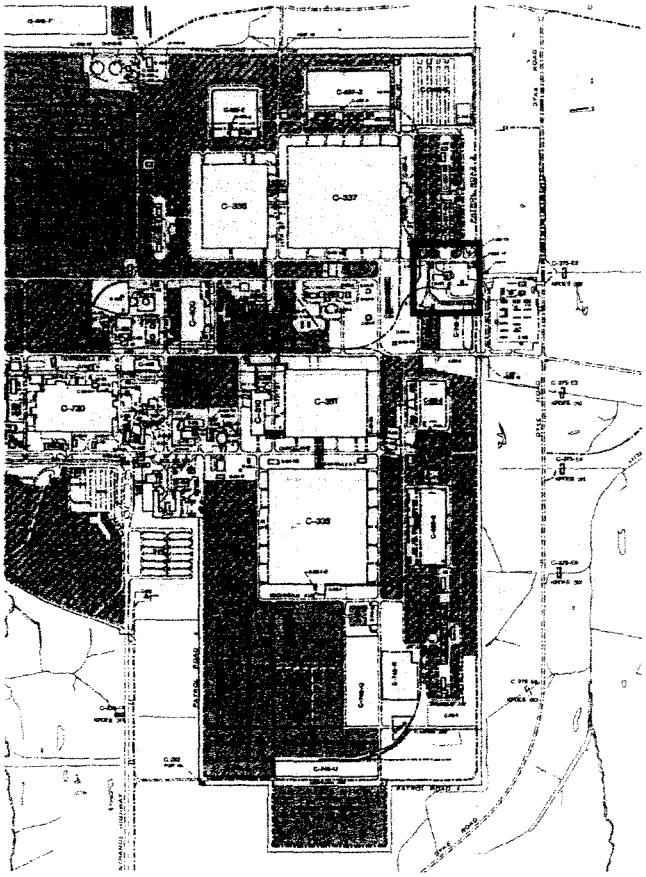
TH 2-12-12

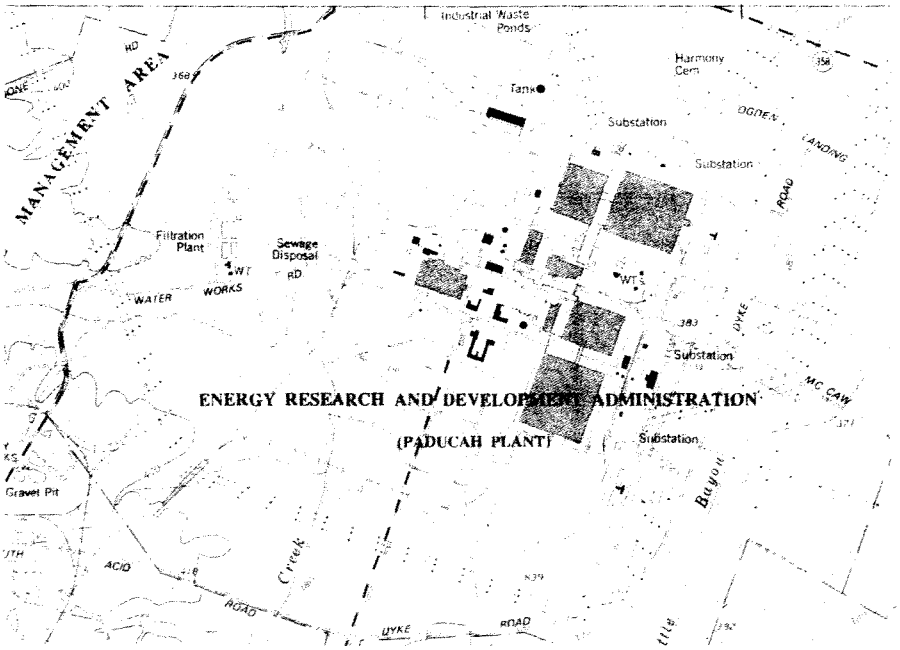
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ MH 7/2/12

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteri and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large an small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-360 and C-360-A is a pre-fabricated, steel building erected in 1982 and composed of two sections; a large two-story storage area and a one-stor administration wing. The building has a built-up, gable roof, exterior walls of steel panels and a poured concrete foundation. The administration wing has a mai entrance on the north façade. This entrance has a single-light, steel and glass door. A secondary entrance on this façade has double doors of single-light, stee and glass design. Windows on this façade are fixed, single-light design. This wing has two, wall air conditioning units on the west façade. The two-story sectio has a large garage bay on the west façade with an overhead track steel door. Adjacent to this entrance is a large rectangular, louvered, steel vent. On the soutl facade is a garage bay with an overhead track door. Also on the east and north facades are overhead track garage bay doors. On the east façade of the administration wing is a garage bay with an overhead track door and a pedestrian door of single-light, steel and glass design.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-140
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-400 Cleaning Building & C-400-A Emergency Power for Critical Alarms

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

INITIATION: 3 / Review and Compliance

HER DOCUMENTATION/RECOGNITION:

_____ Survey	_____ HABS/HAER
_____ KY Land	_____ Local Land
_____ NR	_____ NHL

Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
2 / concrete block wing addition
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P/X / 0/X / concrete and steel original
P/X / 0/X / concrete and steel subsequent

15. DIMENSIONS: 116140 ft²
Height _____ Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S/Q / concrete and transite panels original
S/Q/ concrete and transite panels replacement

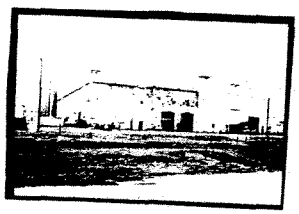
21. ROOF CONFIGURATION/COVERING:

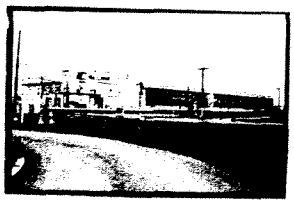
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: F / under maintained

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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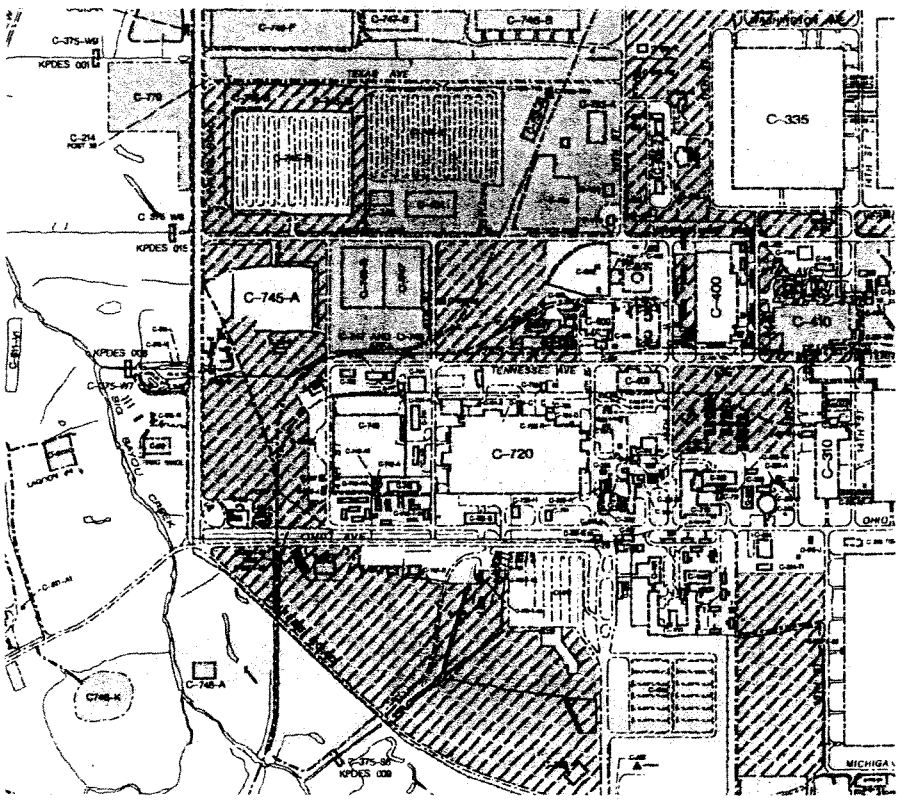
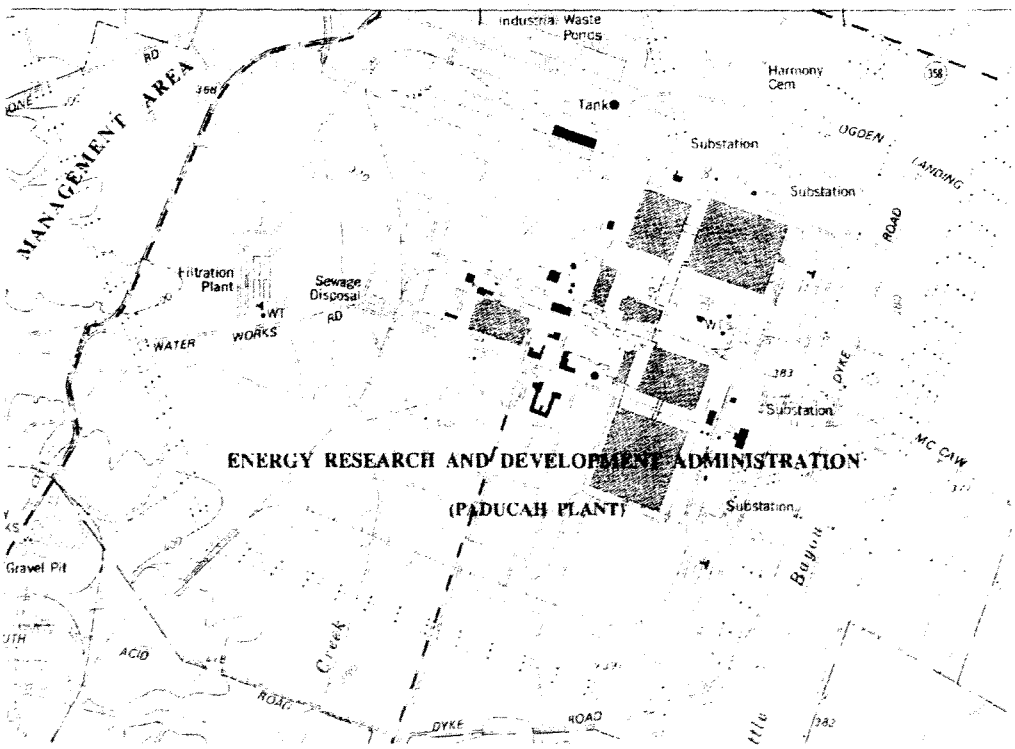
25. SUPPORT RESOURCES:

SITE PLAN KEY	FUNCTION	CONSTRUCTION DATE	METHODMATERIAL
Building C-400-A	Emergency Power for Critical Alarms		steel and metal panels

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

C-400 is a large, one-story building of steel and concrete construction built in 1952. The building has a concrete foundation and a flat roof of built-up roofing material. The exterior walls are of concrete to approximately six to seven feet above grade. The remaining portion of the upper façade is of transite panels. On the east façade of the building is an original one-story, concrete wing and a ca. 1970, concrete block wing. The concrete block wing has fixed, single-light aluminum and glass windows and two entrances with single-light steel and glass door. The original concrete wing has an original two-light, steel and glass door on the south façade. The concrete wing on this façade has six, large, steel exhaust stacks. The upper façade of the east elevation is composed of a large window wall. This window wall contains four rows of fifteen-light and ten-light steel windows. These windows are fixed except for six-light hinged panels which allow for air circulation in the building. At the roofline is a flat parapet wall with metal coping.

On the east façade of the one-story wing on the east elevation is an original two-light, steel and glass door. The east façade of the main section of the building has a garage bay near the northeast corner of the building which features a steel, roll-up door.

The north façade of the building has a lower façade of concrete and an upper façade of transite panels. This façade has four garage bays with original, steel and glass overhead track doors. This façade also has five pedestrian doors of single-light and two-light steel and glass design. On the upper façade, the east half of the façade contains a window wall of two rows of fifteen-light and ten-light, steel and glass design windows. These windows have central hinged, four-light and six-light panels. The west section of the upper façade is of transite panels and lacks fenestration. The west façade of the building is similar to the east façade except that it lacks any wings. This façade has three entrances with original, two-light, steel and glass doors. The upper façade has a large window wall composed of three rows of ten-light and fifteen-light windows. Above the windows and below the roofline are transite panels.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-141
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-402 Lime House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 0 / 1950 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / reinforced concrete original
P / 0 / reinforced concrete subsequent

15. DIMENSIONS: 1742 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete original
S / smooth poured concrete replacement

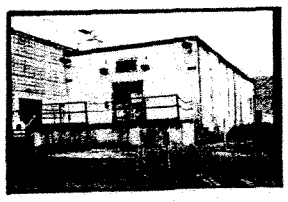
21. ROOF CONFIGURATION/COVERING:

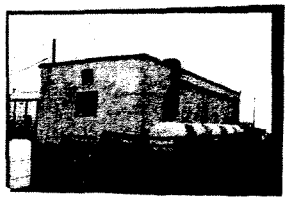
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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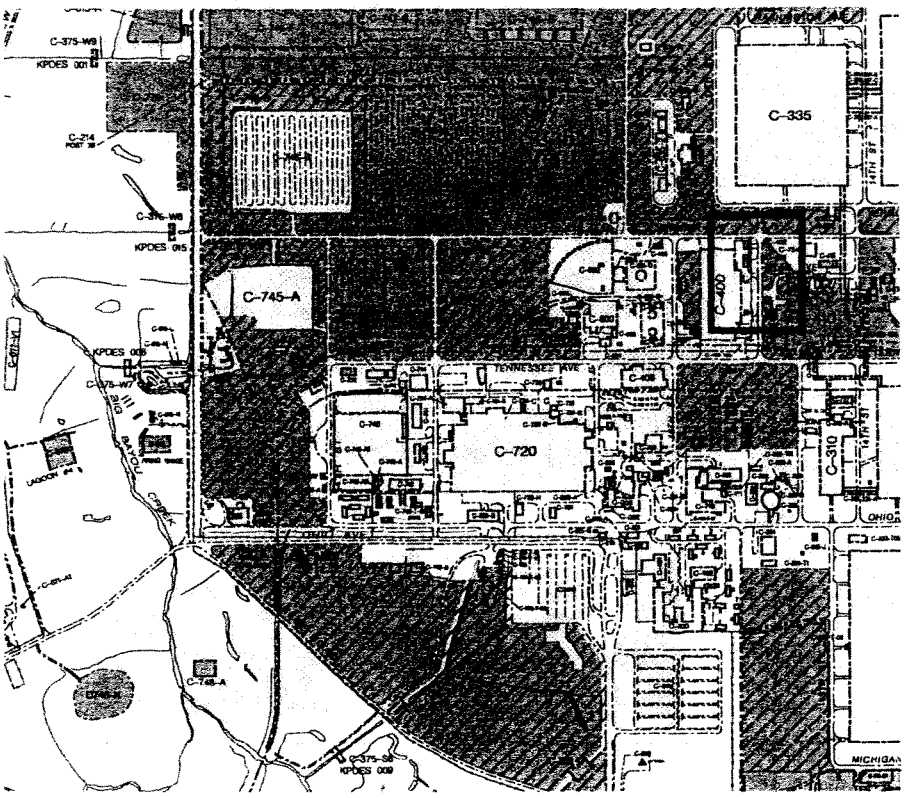
7-12-12

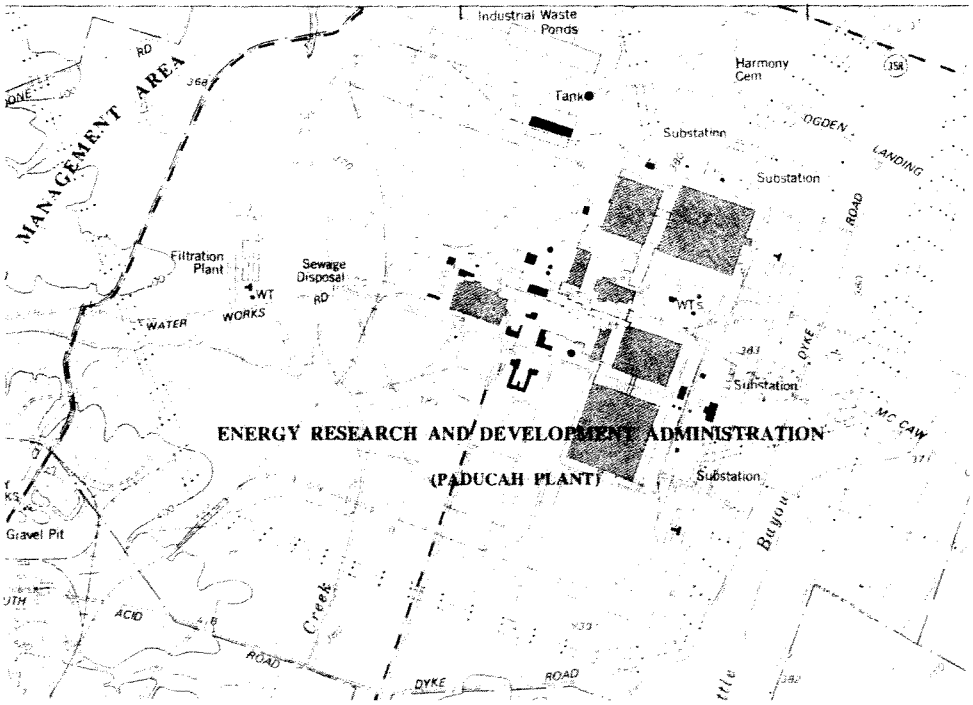
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-402 is a one-story Lime House of reinforced concrete construction built in 1950. The building has a concrete foundation, a flat, built-up roof and exterior walls of smooth concrete. On the main (S) façade is an entrance with original double doors of two-light, steel and glass design. Above the entrance is a steel, louvered vent. This entrance is accessed by a concrete and steel staircase and concrete loading dock platform. On the east, west and north facades are original, nine-light, fixed steel windows with concrete sills.

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2-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-142
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-403 Neutralizing Pit

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and canvas tent original
X / X / concrete and canvas tent subsequent

15. DIMENSIONS: 900 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / canvas tent original
Q / canvas tent replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 /	0 /	original
0 /	0 /	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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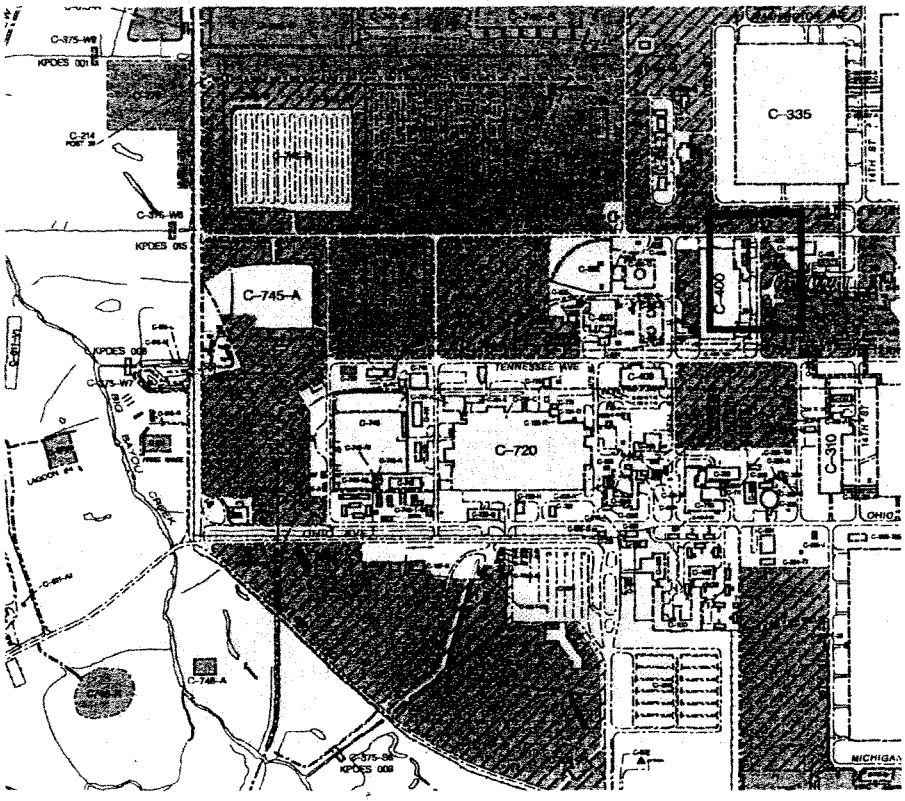
7-12-12

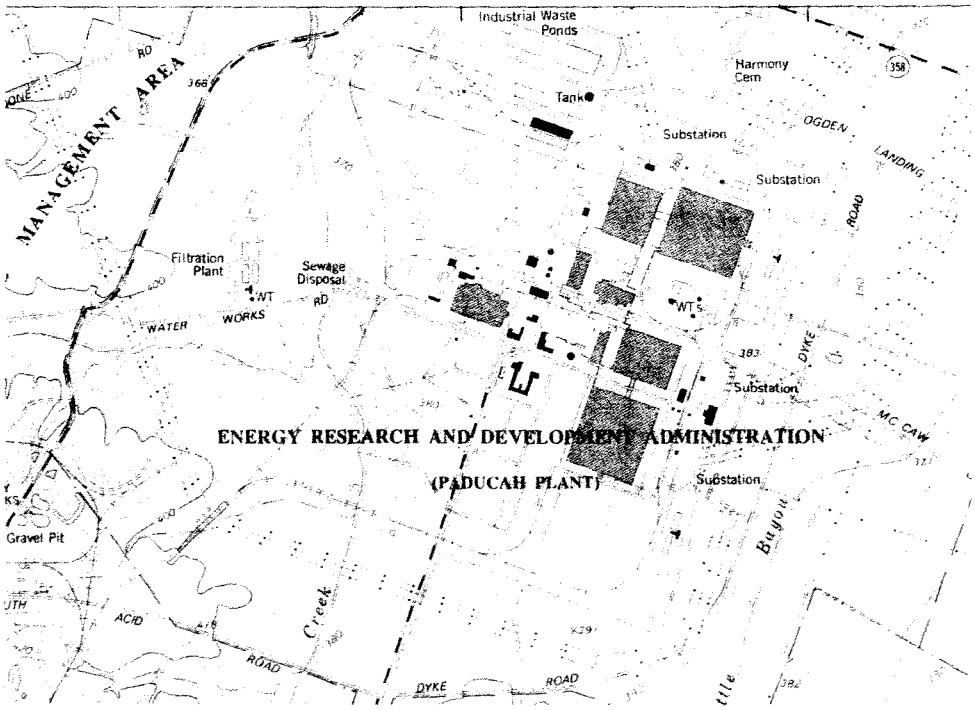
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-1C

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Building C-403 is a rectangular, at-and-below-grade concrete-lined neutralizing pit.

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7-1212

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-143
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-405 Contaminated Items Incinerator

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 1010 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

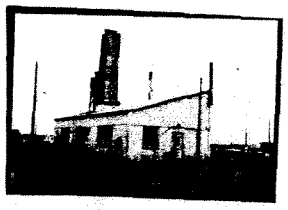
21. ROOF CONFIGURATION/COVERING:

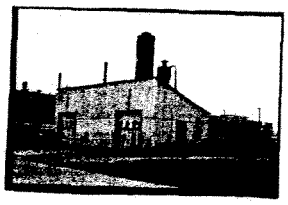
CONFIGURATION	COVERING	
P / shed	8 / transite	original
P / shed	8 / transite	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

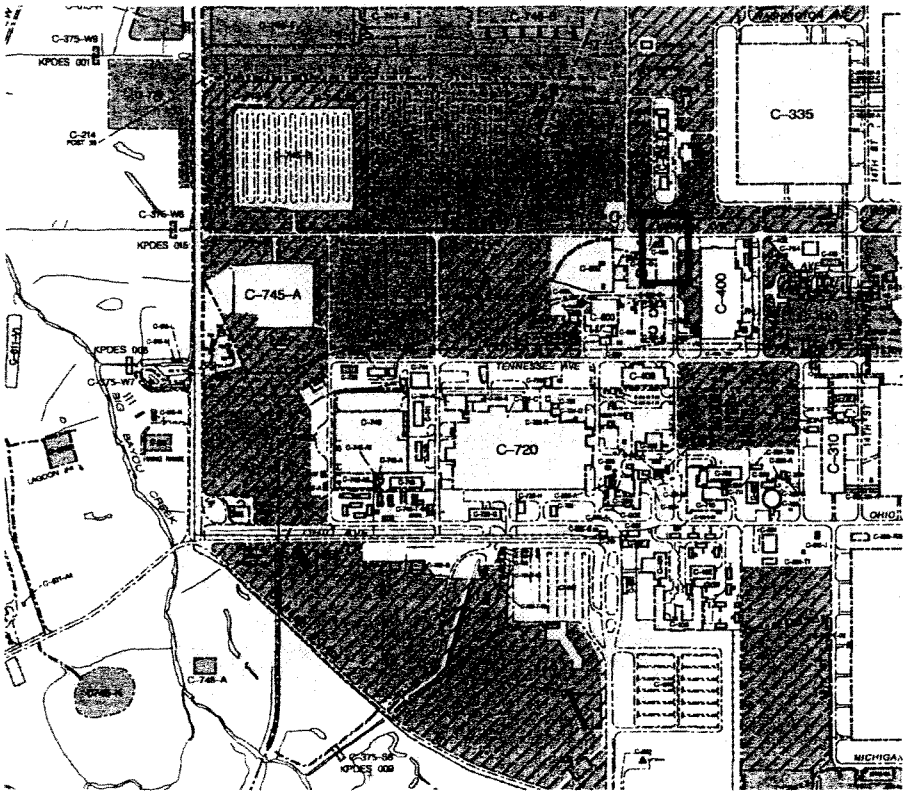
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

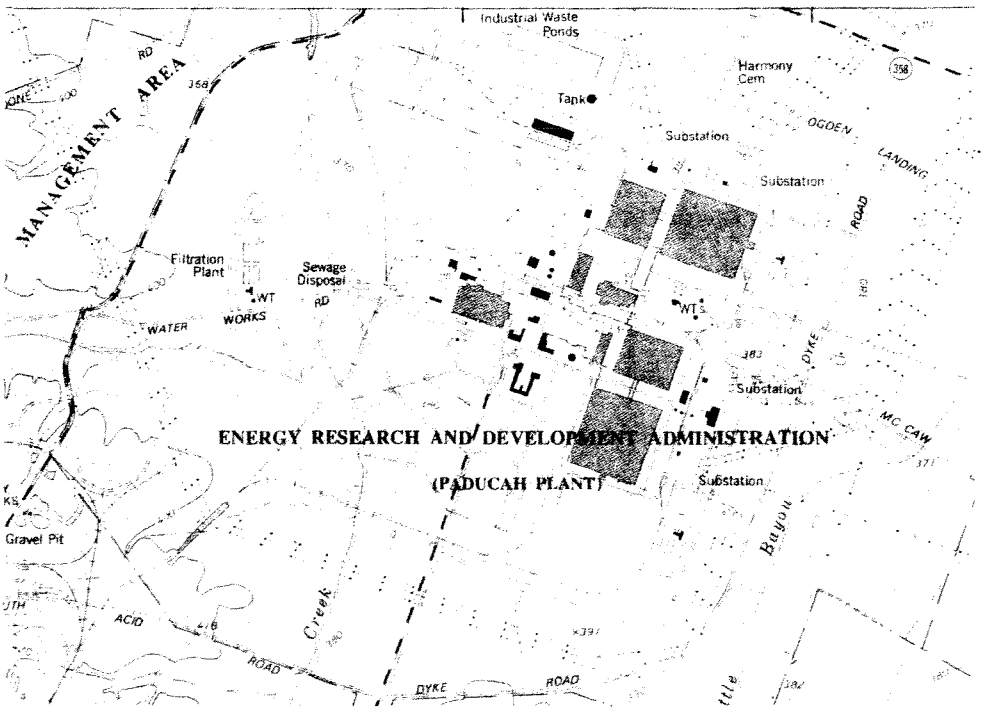
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectior of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge anc Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the seconc phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completec in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large anc small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-405 is a one-story incinerator building completed in 1952. The building has a poured concrete foundation, an exterior of transite panels and a shed roo transite. On the main (N) façade are two garage bays with overhead track, four-light, steel and glass doors. On the west façade is a pedestrian door of single light transite and steel design. A window on this façade is of six-light, steel and glass, awning design. The east façade has similar fenestration. On the soutl façade are two, twelve-light, steel and glass windows with insert four-light awning panels.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-144
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-406 Trichloroethylene Storage Tank

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / 1953 estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 6015 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel original
Q / steel replacement

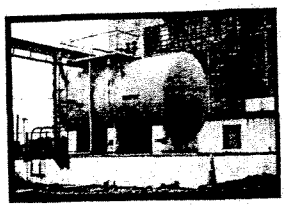
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel	original
Q / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

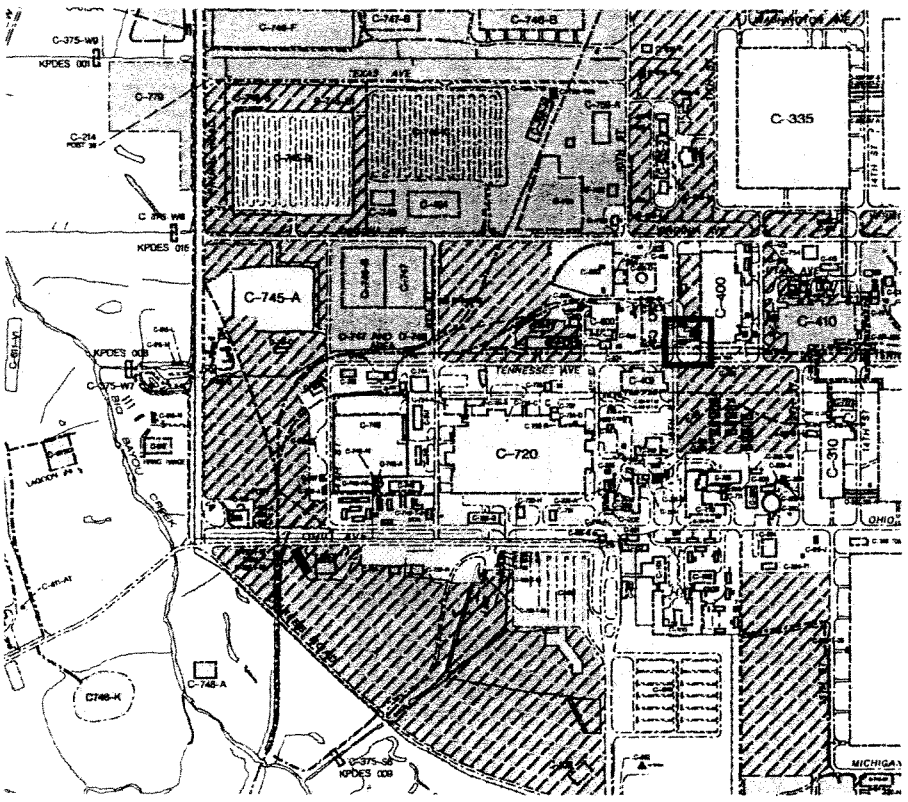
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-L

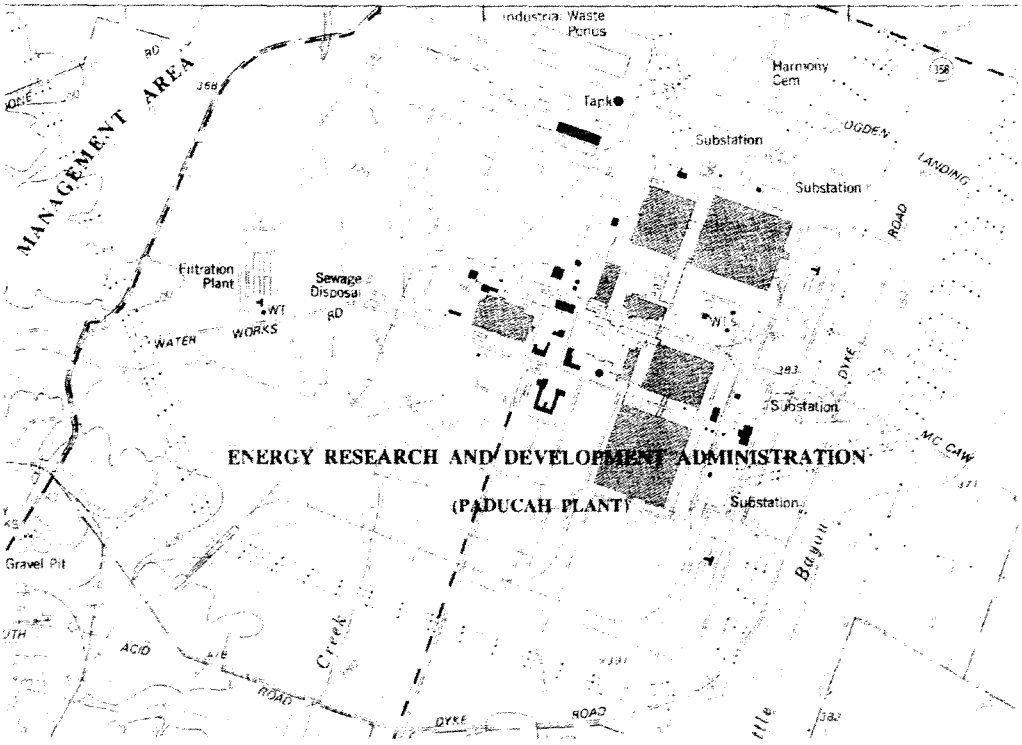
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomi Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at th Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 an was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office an residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains i business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

Building C-406 is a storage tank that was erected to contain trichloroethylene. This 6015-gallon tank is located adjacent to Building C-400 and was used t contain chemicals assisting in the cleaning of machinery. The steel tank is cylindrical in form and rests on a concrete foundation and piers.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-145
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-407 Nitric Acid Storage Tank

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 11000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	8 / steel	original
O / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

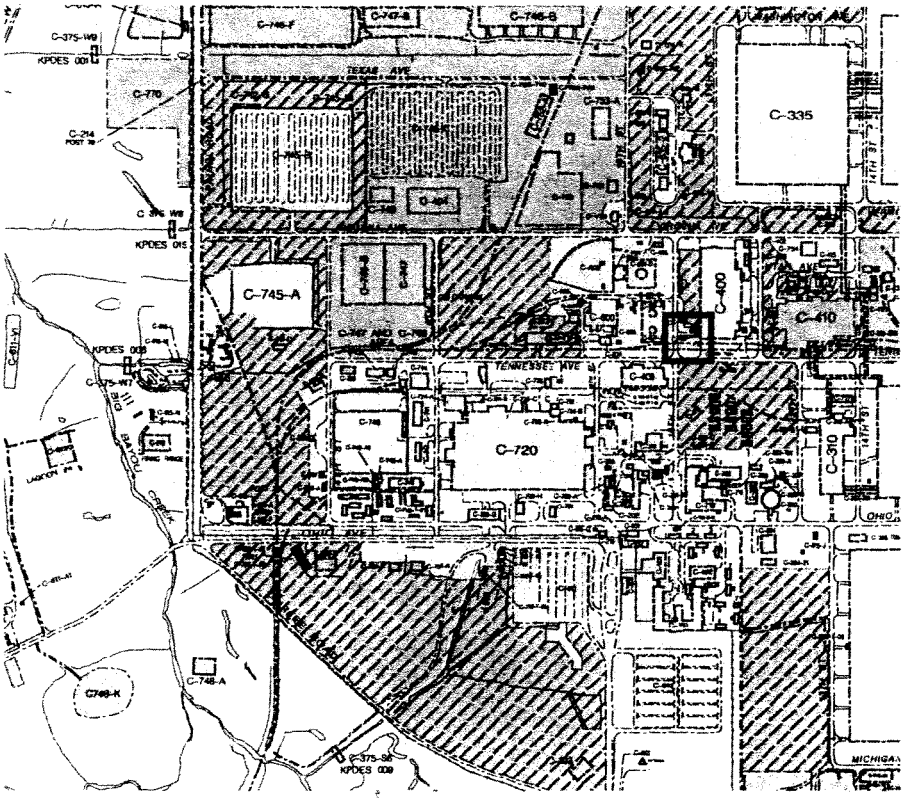
OFFICIAL USE ONLY

A
7212

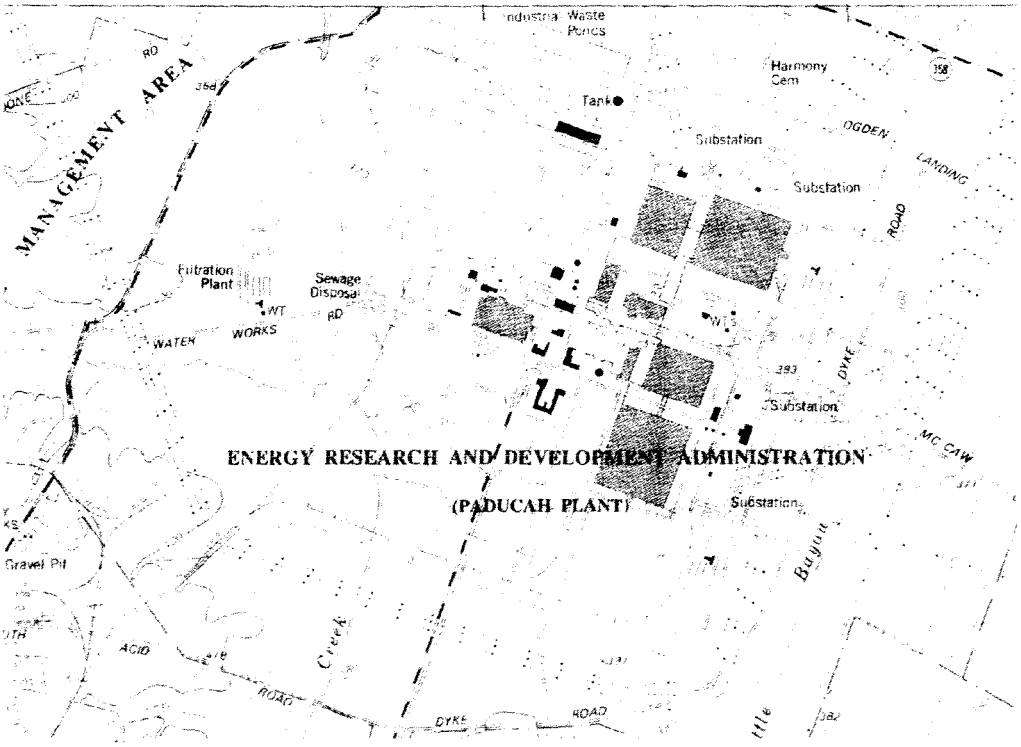
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

Building C-407 is a storage tank for nitric acid and is located to the west of Building C-400. The tank was designed to hold 11,000 gallons of nitric acid for use in the cleaning of equipment within Building C-400. The steel tank is cylindrical in form and rests on a concrete foundation with concrete piers.

~~OFFICIAL USE ONLY~~ TH
7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-140
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-408 50-Ton Truck Scale

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 6 / 3 / 1963 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS: 130 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

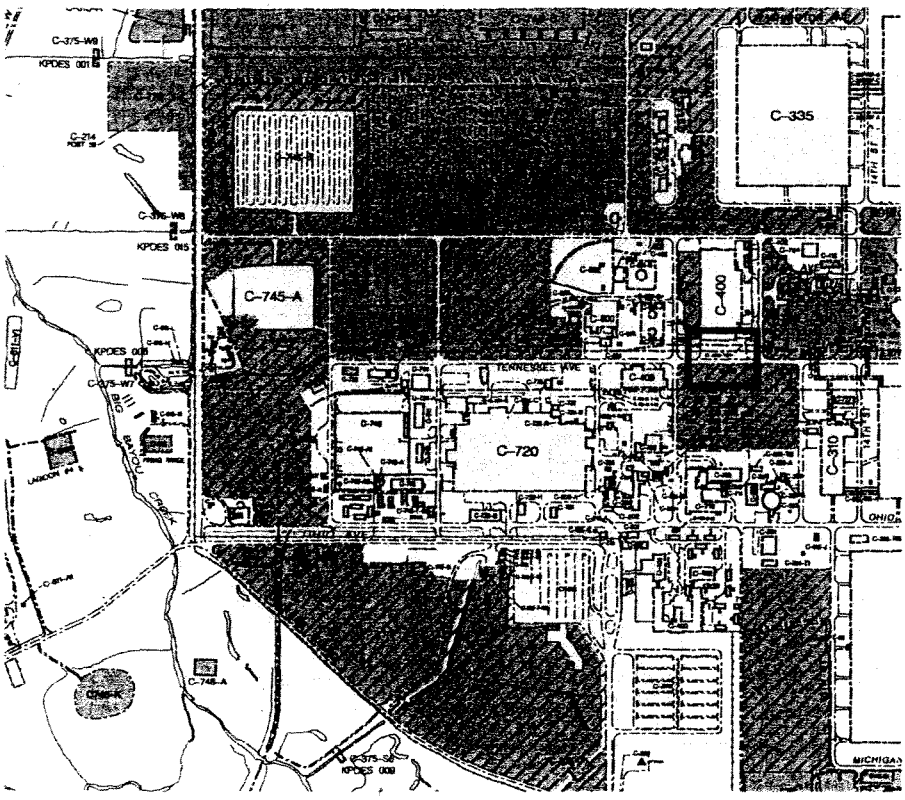
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TA
7-12-12

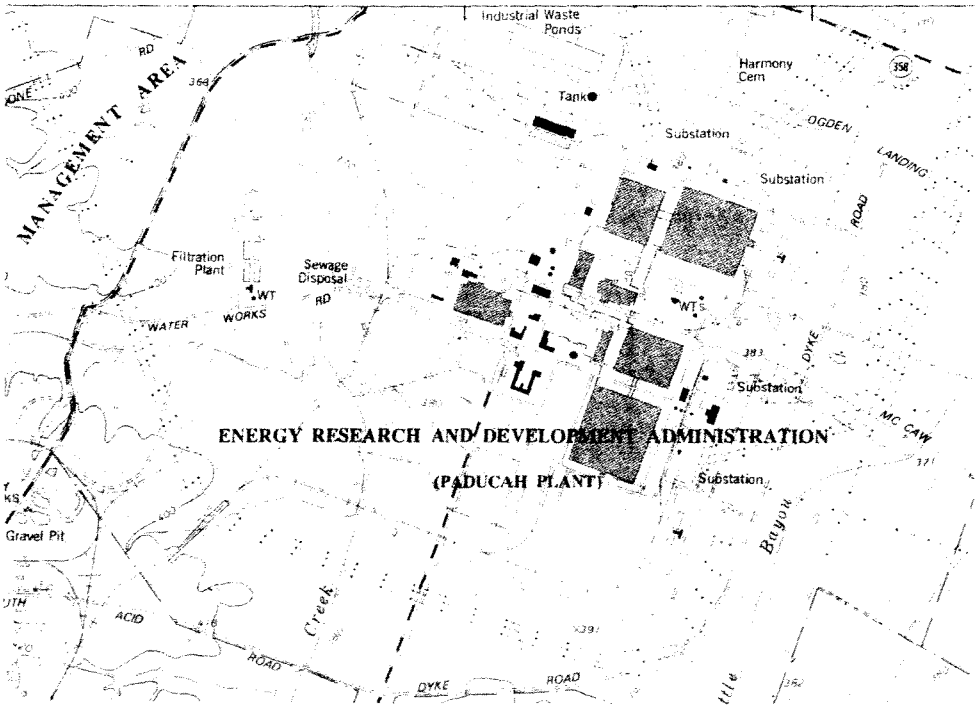
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Building C-408 was constructed in 1963 and is of concrete block construction and houses weighing equipment for a 50-ton truck scale. The building has a poured concrete foundation, a flat, built-up roof and exterior walls of concrete block. On the main (N) façade is an entrance with an original, two-light, steel and glass door. This façade also has a twelve-light, fixed steel window. On the west and east facades are twelve-light, steel windows with inset four-light awning panels. The south façade lacks fenestration. Below the windows are concrete block sills. In front of the building is a rectangular concrete pan containing a concrete and steel truck scale.

~~OFFICIAL USE ONLY~~ JH
7-12-16

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # _____
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-409 Stabilization Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 6 / 1976 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 26797 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / vertical metal panels original
Q / vertical metal panels replacement

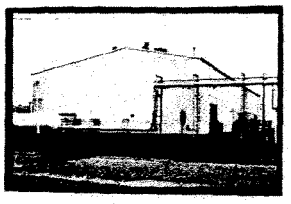
21. ROOF CONFIGURATION/COVERING:

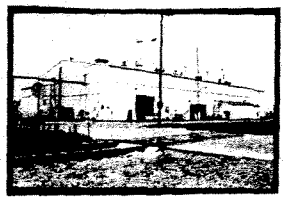
CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	7 / standing metal seam	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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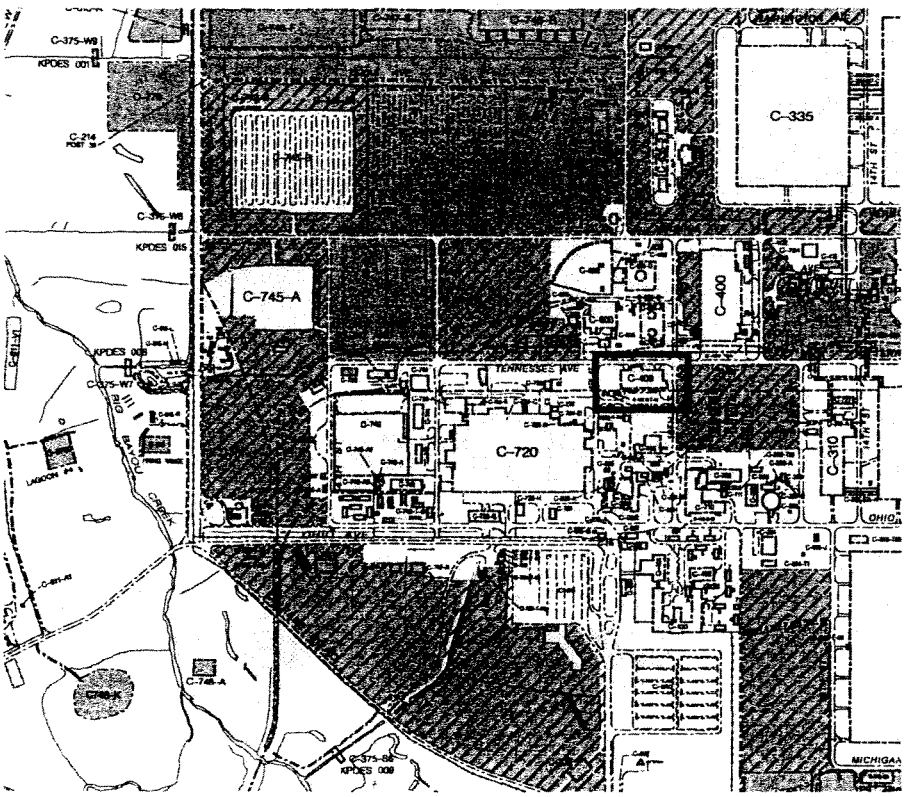
7-12-2

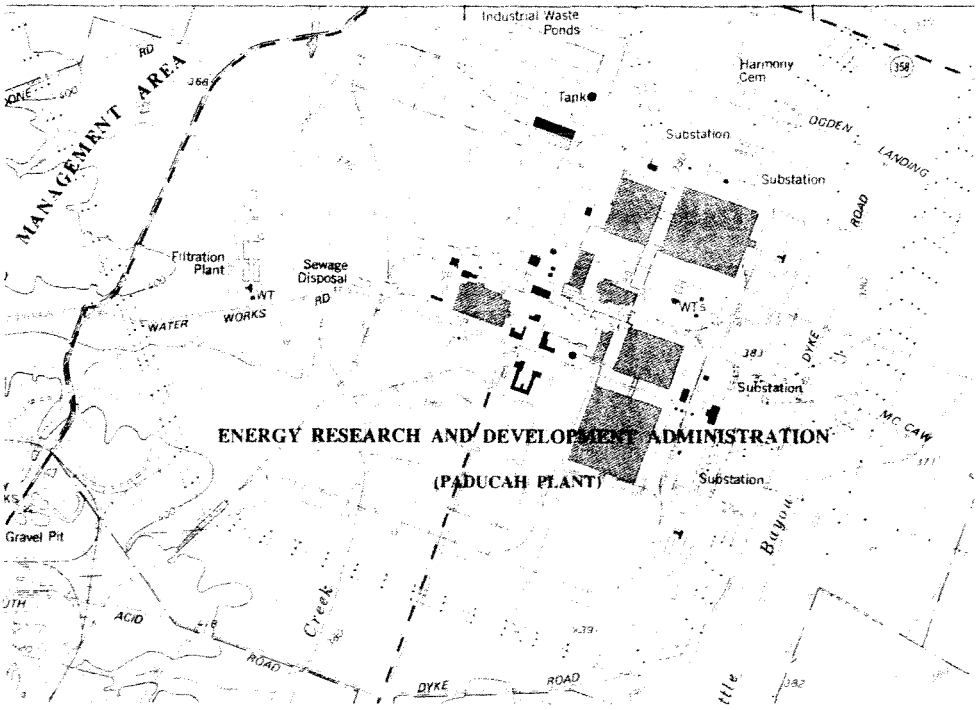
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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TH 7/2-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectior of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge anc Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the seconc phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completec in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large anc small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

The Stabilization Building (C-409) was erected in 1976 and is a one-story, rectangular plan, pre-fabricated building. It has a poured concrete foundation, a gable roof of crimped metal panels and an exterior of vertical metal panels. The south façade has two garage bays with overhead track steel doors Adjacent to the garage doors are pedestrian of three-light steel and glass design. On the east façade of the building is a shed roof wing. On the south façade of this wing is a two-light steel and glass door. On the east façade there is no fenestration except for a single-light steel and glass door.

The north façade has two garage bays with large steel overhead track doors. Adjacent to these entrances are pedestrian entrances with three-light steel anc glass doors. On this façade is also a shed roof wing with three-light steel and glass doors on the east and west facades. Also this façade is a transformer area enclosed by a chain link fence and concrete block wall. Windows in the shed roof wing are fixed, single-light steel design. Attached on the west façade is a small concrete block wing. This façade lacks fenestration.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-148
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-410 Feed Plant Complex (C-410-1, C-411, C-420)

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3-7 / 1953-57 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/ _____
_____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete and steel
X / X / reinforced concrete and steel

15. DIMENSIONS: 128869 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____; _____/ _____ first
____/ _____; _____/ _____ second
____/ _____; _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: P/R / in process of decontamination prior to demolition

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications

(SEE CONTINUATION PAGE)

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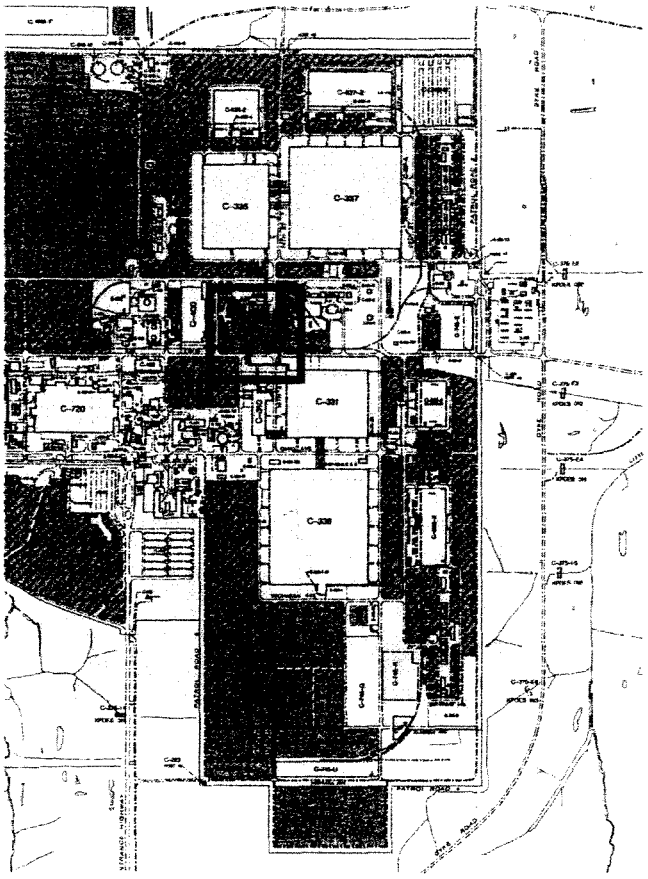
7-12-12

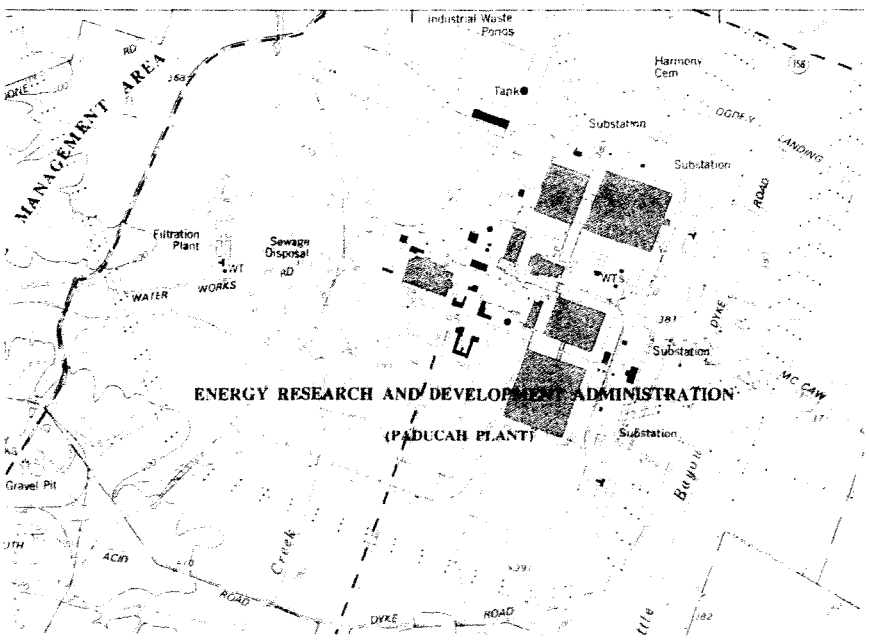
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design anc engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 anc was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office anc residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains ir business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 anc enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the to floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or gree salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichmen system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processin buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-23 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Produc Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-31 the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, th Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roof and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block an sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C 333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 ar smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction an circular design.

The C-410 Feed Plant complex was constructed in a series of phases between 1953 and 1957. The main C-410 building and its expansions were designed b Singmaster & Breyer, Engineers of New York. The original section of the complex constructed in 1953 consists of the existing central portion of C-410, the H neutralization building (Building C-410-C), the neutralization (sludge) lagoon (C-410-B), a hydrogen holding tank, a concrete holding basin (C-410-E) and four H storage tanks (C-410-F, -G, -H, and -J). After placing the building in operation it was determined that its original size was inadequate and the building wa expanded to the east and west in 1954 and 1955. The east expansion was built to contain two additional cell rooms and related operations while the we expansion was built as a hopper storage area. During these years a second phase east expansion was also constructed which held an additional cell room an transformer room. In 1956, Building C-420 was constructed consisting of a multi-story tower of steel framing and a one-story concrete block wing. The Giffels Vallet, Inc. of Detroit designed Building C-420. Another addition, Building C-411, was added to the east façade of the complex in 1957 to house a ce maintenance area.

The C-410 Complex is located in a central position among the main processing buildings. The Complex served as a feed plant for the cascade diffusion syster Within the Complex, workers converted a powder form of uranium into a gas, which the cascade diffusion process requires. In 2002, an environmental stu concluded that the C-410 Complex had a high contamination level of radioactive material and the facility posed a potential health risk to workers and the gener public. Practically all parts of the facility were contaminated, and adaptive reuse of the buildings and structures of the C-410 Complex was not feasible. In 200 Thomason and Associates completed documentation for this complex in accordance with guidelines set forth by the Kentucky Heritage Council (SHPO). Th documentation is contained in the report, *"Cultural Resource Survey and National Register Assessment, C-401 Complex, Paducah Gaseous Diffusion Pla McCracken County, Kentucky."* The Department of Energy is presently undertaking the decontamination and decommissioning of the complex to diminish hea risks to PGDP workers and the surrounding public.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-149
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-415 Feed Plant Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 6 / 0 / 1960 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 3666 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / vertical metal panels original
Q / vertical metal panels replacement

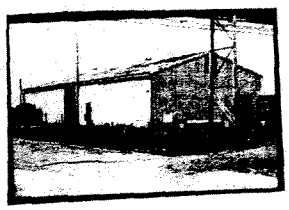
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	_____ / standing metal seam	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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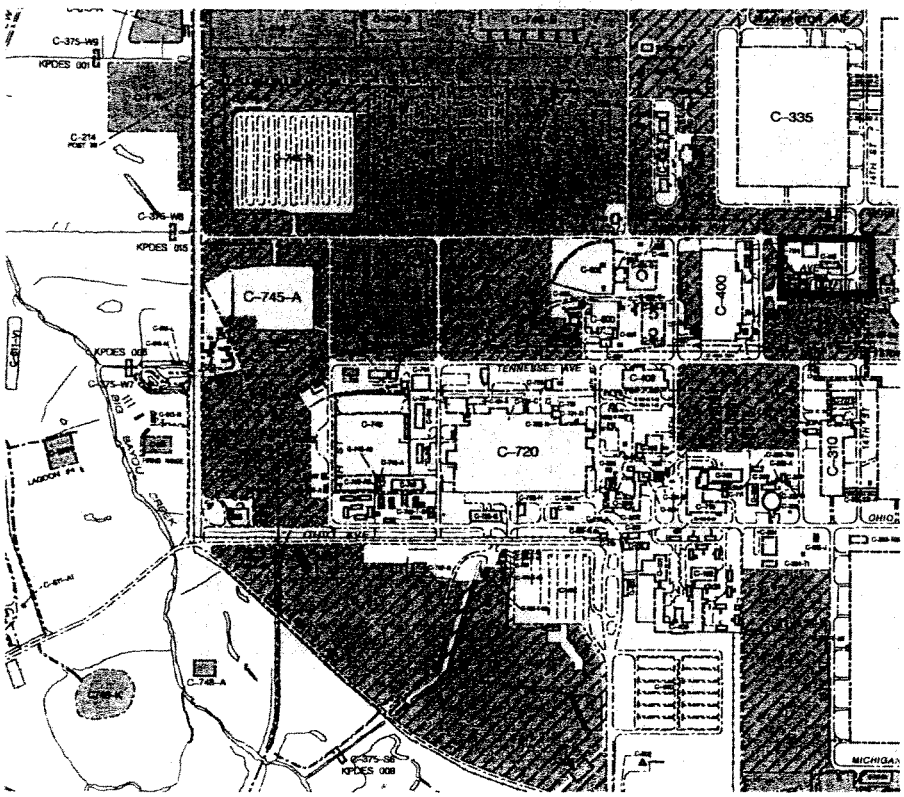
7-1212

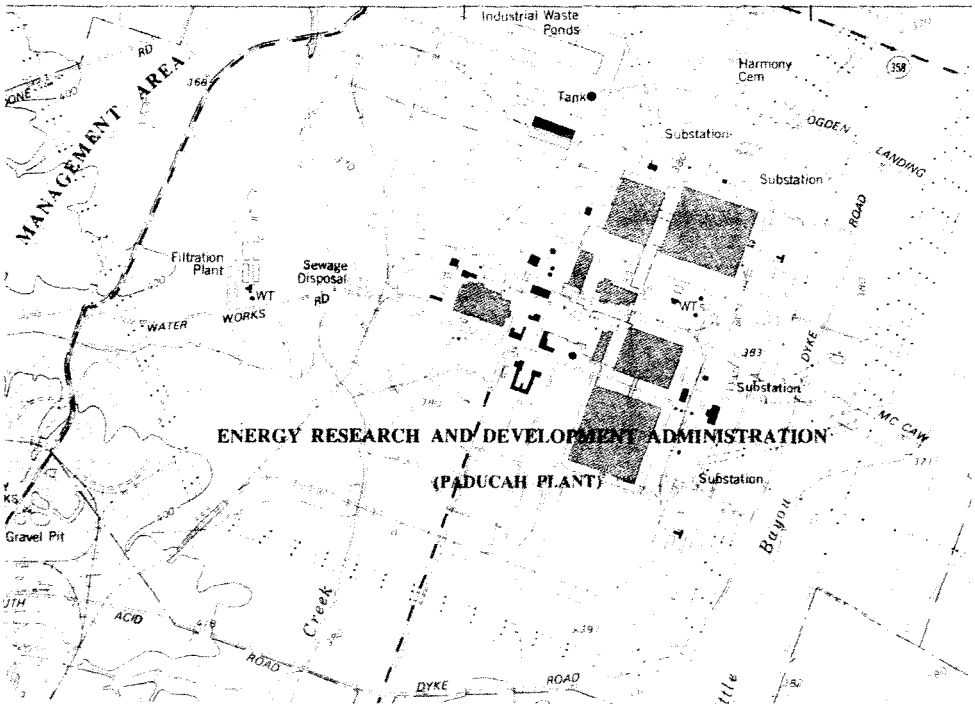
25. SUPPORT RESOURCES: SITE PLAN KEY | FUNCTION | CONSTRUCTION DATE | METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-415 is a one-story, pre-fabricated, steel storage building. It has a poured concrete foundation, a gable roof of corrugated metal and an exterior of vertical steel panels. On the main (south) façade is a garage bay with an original, sliding track overhead steel door. The pedestrian door on this façade has an original, steel and glass door. In the gables, on the east and west facades are louvered steel vents. The north facade lacks fenestration. At the roofline are two circular exhaust vents.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-150
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-531-1 Switch House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / _____ documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / poured concrete original
P / 0 / poured concrete subsequent

15. DIMENSIONS: 31400 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
S / poured concrete replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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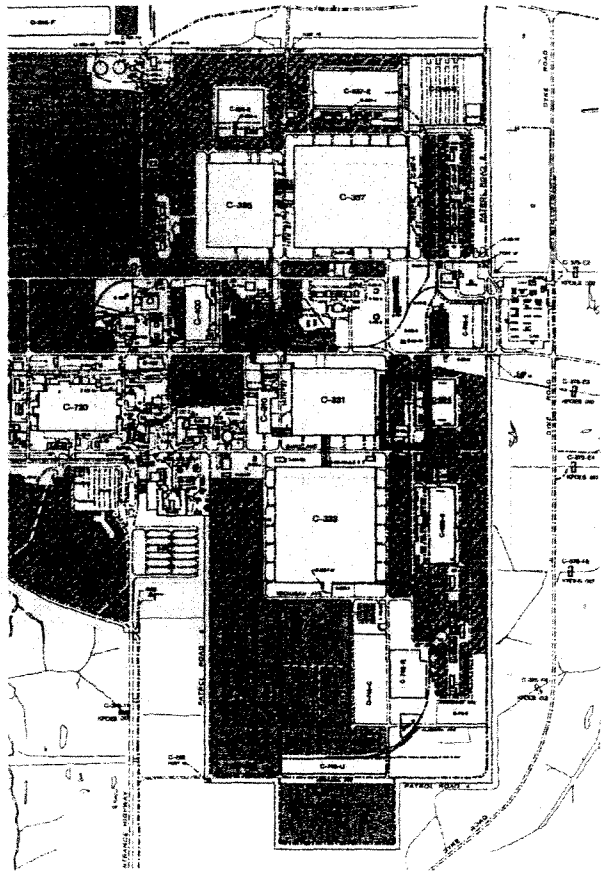
7-12-12

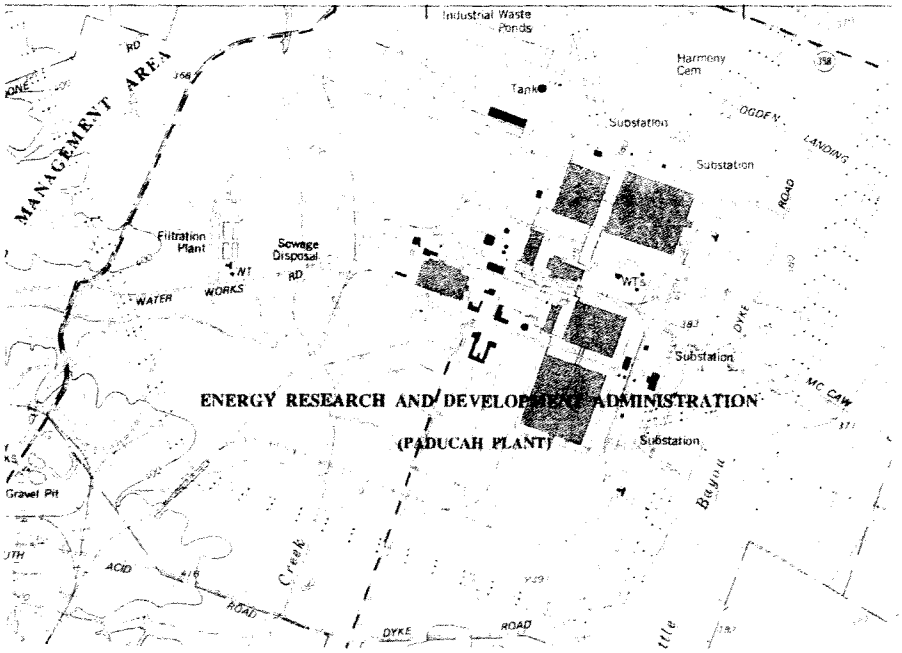
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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TA
74212

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Constructed in 1952, Building C-531-1 was completed to serve as the electrical switch house for the C-331 processing building. This is a one-story building of poured concrete construction. It has a poured concrete foundation, a flat built-up roof and an exterior of poured concrete. The exterior walls are scored in a rectangular pattern design. The entrance on the main (west) façade has a ca. 1990, steel and glass door. This door has a slightly projecting concrete surround. On the south façade is a recessed wing which has a ca. 1990, solid steel door on the west façade. On the north façade is a similar wing with a solid steel door. On the main section's north façade are two rectangular, louvered vents. To the north and south of the building are two sets of oil tanks that rest within poured concrete foundations.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-151
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-531-2 Switchyard

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
___ Survey ___ HABS/HAER
___ KY Land ___ Local Land
___ NR ___ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ___ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
___ /
___ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 135160 ft²
Height ___ Width ___ Depth ___

16. PLAN:
___ / first
___ / second
___ / third

17. STYLISTIC INFLUENCE:
___ / ___ ; ___ / ___ first
___ / ___ ; ___ / ___ second
___ / ___ ; ___ / ___ third

STYLE DEVELOPMENT:
___ / first ___ / second ___ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	3 / gravel	original
C / continuous	3 / gravel	replacement

20. PRIMARY WALL MATERIAL:
0 / n/a original
0 / n/a replacement

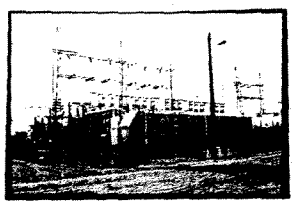
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / n/a	0 / n/a	original
O / n/a	0 / n/a	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ___ / ___ / ___
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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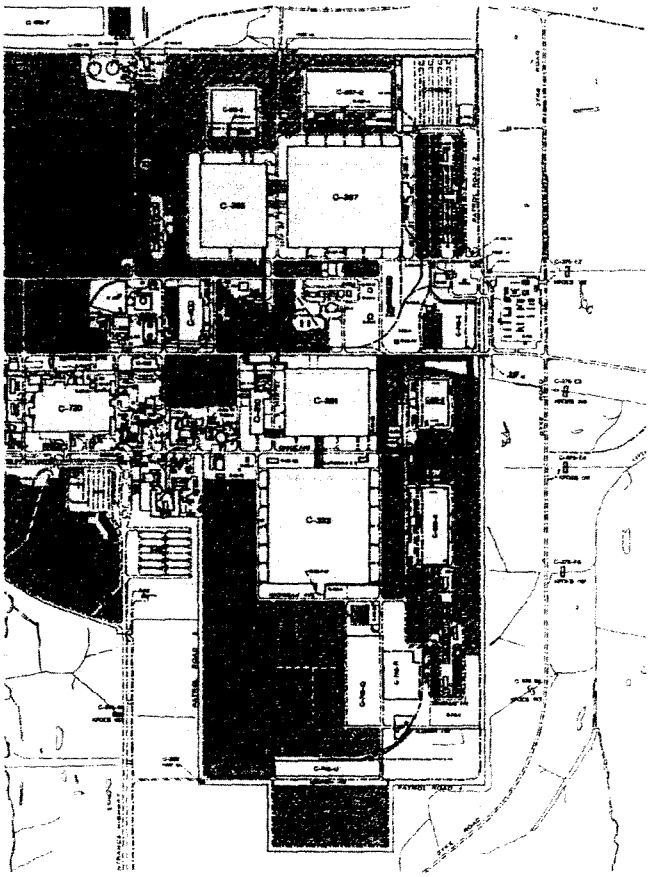
7-12-12

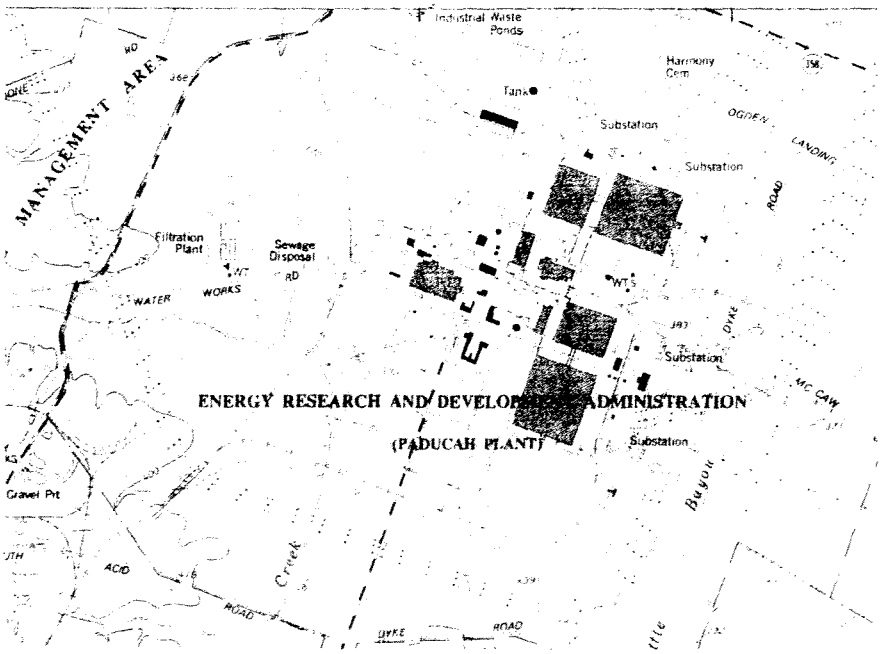
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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7/2/12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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This switchyard contains electrical equipment and transformers to supply power to the C-331 processing building. Completed in 1952, this electrical equipment is sited on a gravel foundation east of Building C-331.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-152
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-531-3A Fire Valve House No. 1

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

HER DOCUMENTATION/RECOGNITION:

_____ Survey	_____ HABS/HAER
_____ KY Land	_____ Local Land
_____ NR	_____ NHL

Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 144 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____:_____/_____ first
____/_____:_____/_____ second
____/_____:_____/_____ third

STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

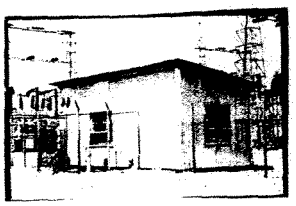
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / flat	8 / transite panels	original
P / flat	8 / transite panels	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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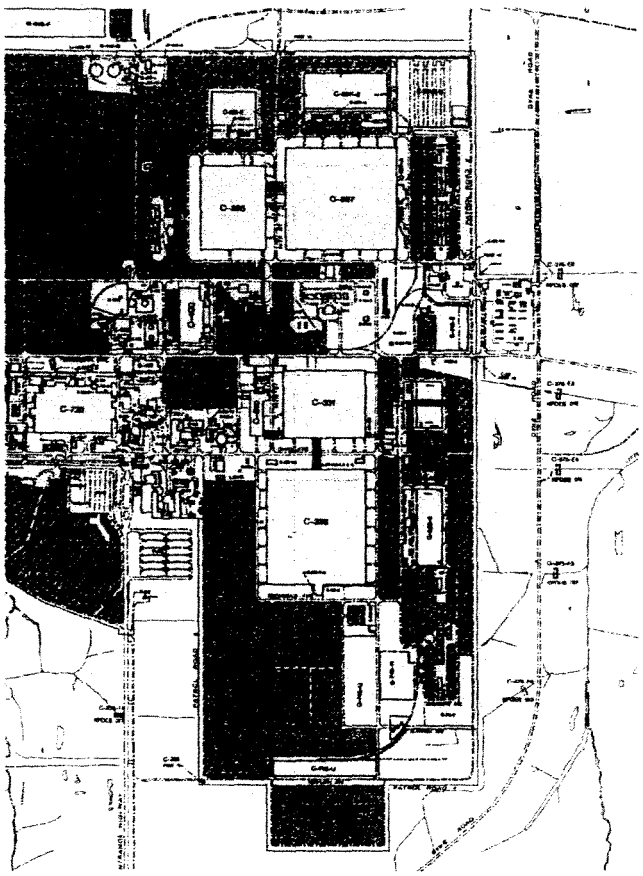
7-12-12

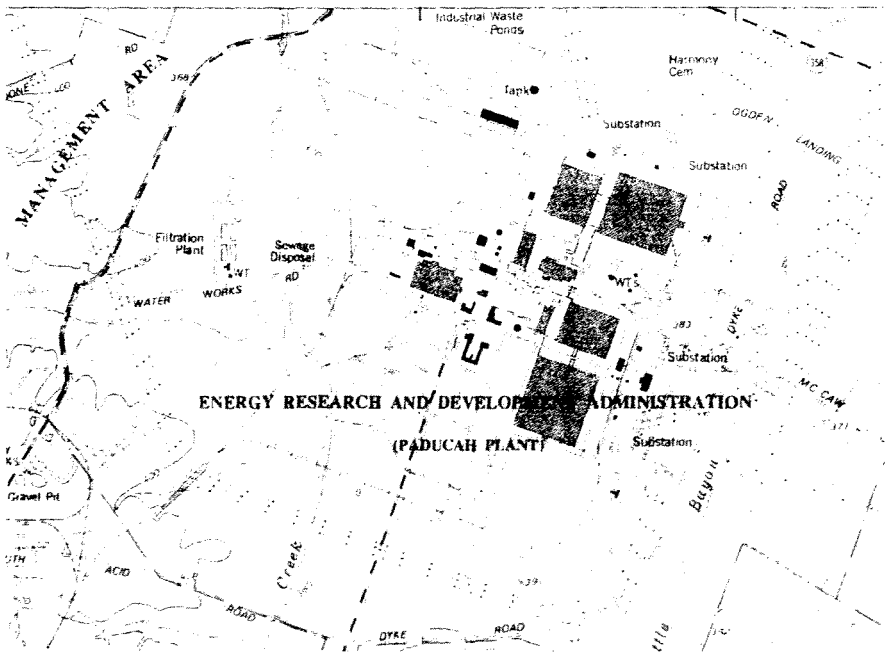
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

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Fire Valve House No. 1 and No. 2 were built in 1952 and provide fire protection service for the adjacent switchyard and switch house. These are similar plan one-story buildings with a poured concrete foundation, a shed roof of transite panels and exteriors of transite panels. The buildings have nine-light and six-light steel and glass awning windows. Entrances have paired, three-light, steel and glass doors.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-153
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-531-3B Fire Valve House No. 2

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

THER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 144 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

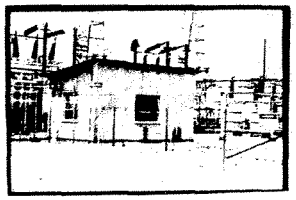
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
P	/ shed	8	/ transite panels	original
P	/ shed	8	/ transite panels	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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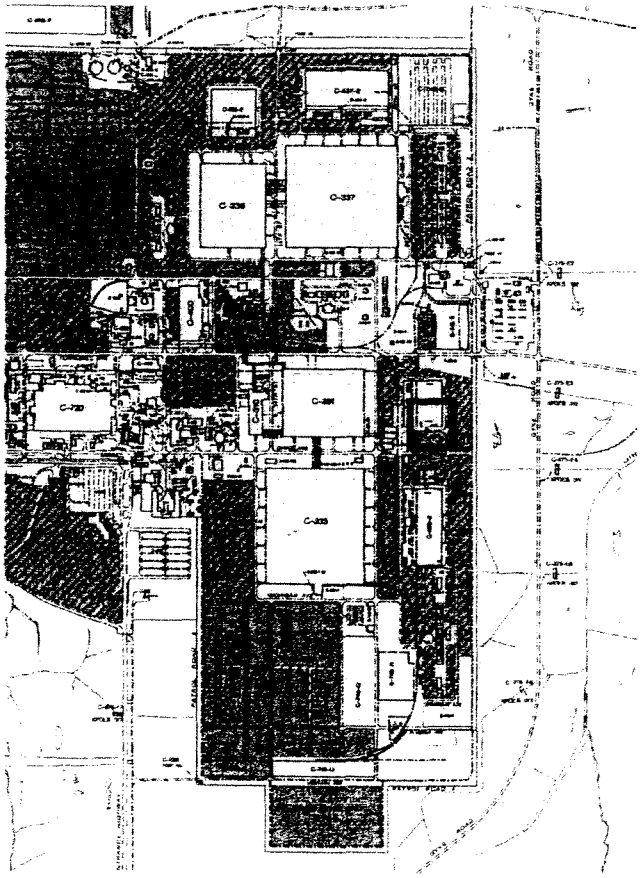
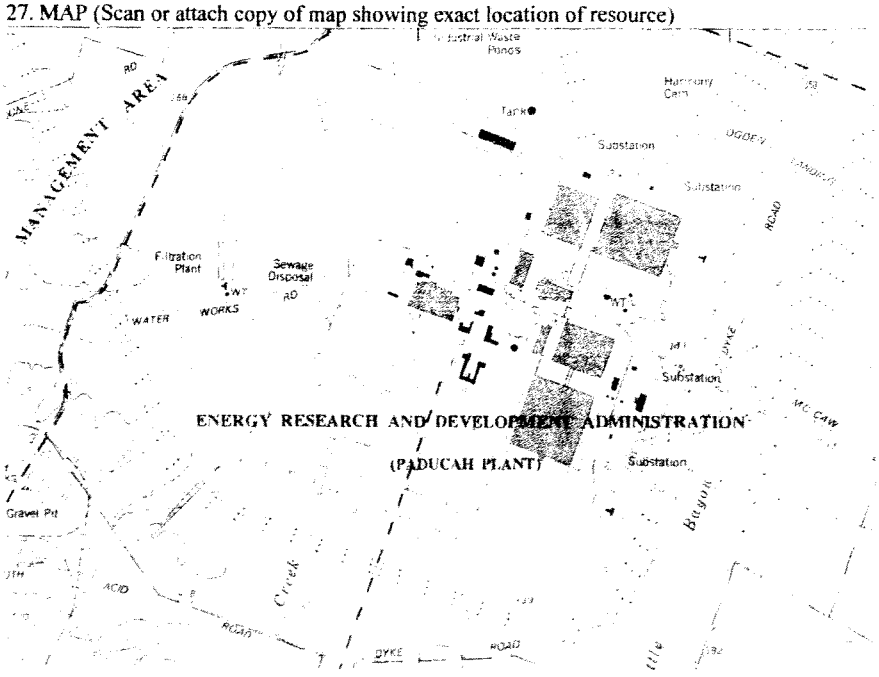
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-154
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-532 Relay House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

TIER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 7784 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete-smooth original
S / poured concrete-smooth replacement

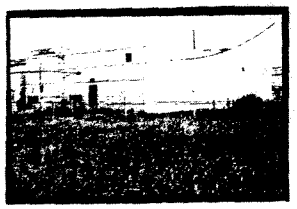
21. ROOF CONFIGURATION/COVERING:

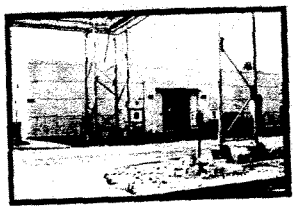
CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

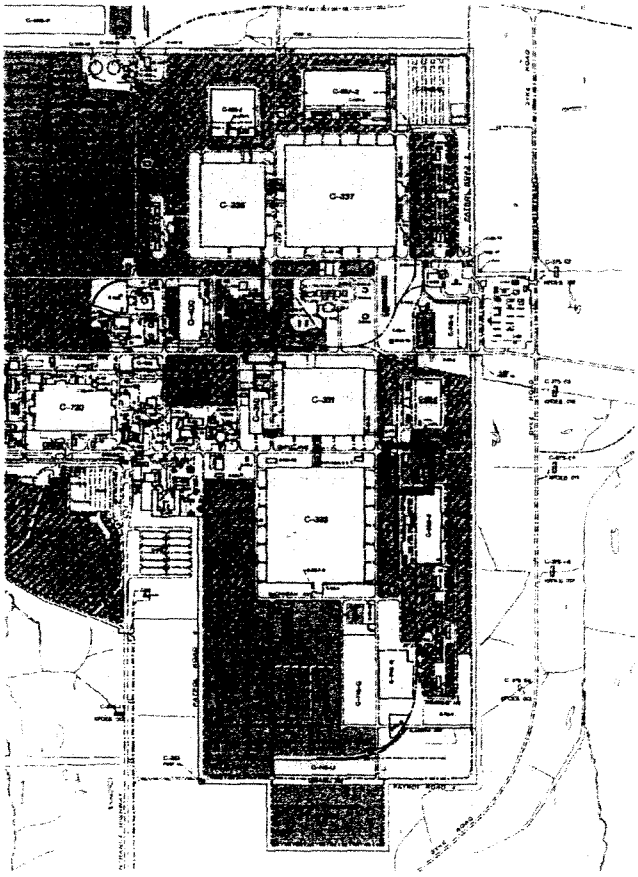
(SEE CONTINUATION PAGE)

OFFICIAL USE ONLY #712-12

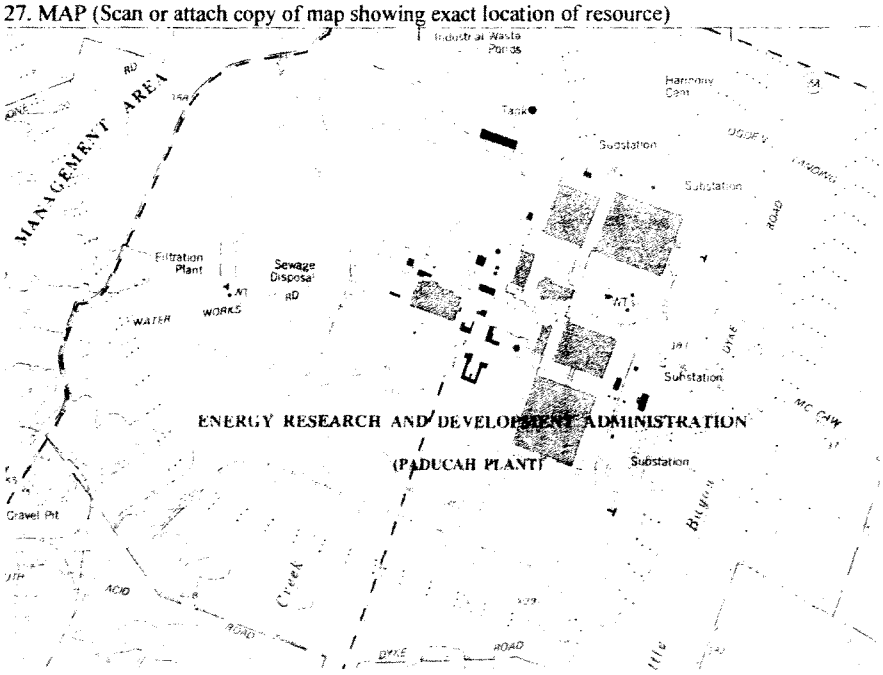
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erecti of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge ar Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secor phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complet in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomi Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at th Manhattan Project site in Hanford. Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The **Switchyards and Switch Houses** supply and control the electrical power to each of the four processing buildings. There are four main switchyard an switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-53 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within th switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processin buildings via overhead metal conduits

Building C-532 is an electrical relay house built between the C-531 and C-533 switchyards. The building was constructed in 1952 and is a one-story, reinforce concrete building. The building has a poured concrete foundation, a flat built-up roof and an exterior of smooth concrete. On the main (west) façade is projecting entry bay with ca. 1990, three-light, steel and glass doors. Above the doors is a steel panel which encloses the transom area. Above the entrance is steel canopy. The walls of the building are scored to resemble belt courses and shallower scoring creates a design of rectangular panels. On the south façade i an entrance with a ca. 1990, solid steel door. This façade also has two louvered steel vents. On the north façade is an entrance with a ca. 1990, solid steel doo There is no fenestration on the east façade.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-155
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-533-1 Switch House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
____ /
____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 37360 ft²
Height 1 story Width ____ Depth ____

16. PLAN:
____ / first
____ / second
____ / third

17. STYLISTIC INFLUENCE:
____ / ____ ; ____ / ____ first
____ / ____ ; ____ / ____ second
____ / ____ ; ____ / ____ third

STYLE DEVELOPMENT:
____ / first ____ / second ____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete-smooth original
S / poured concrete-smooth replacement

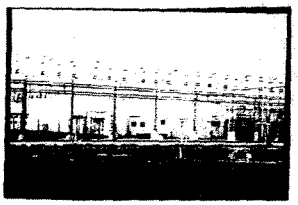
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / concrete	original
Q / flat	8 / concrete	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ____ / ____ / ____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

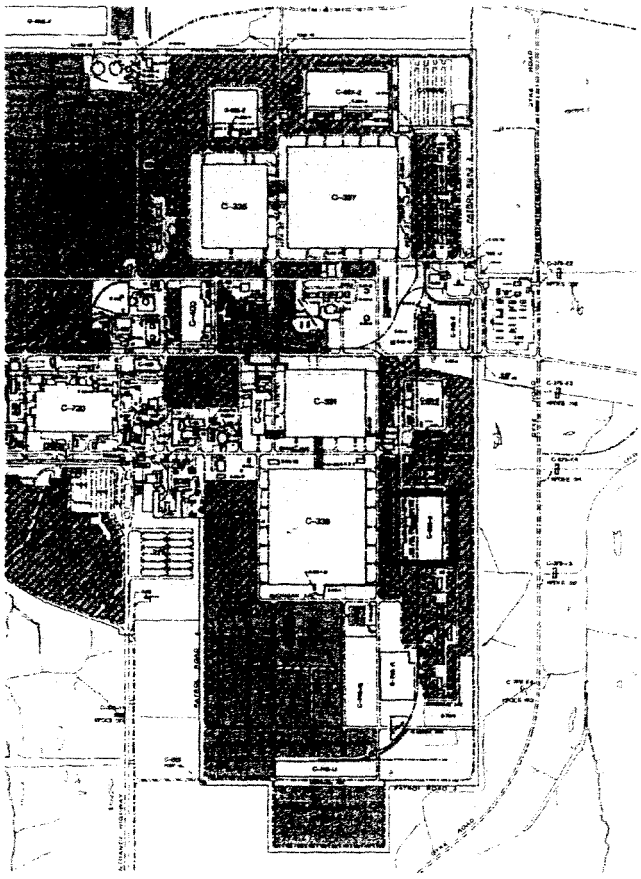
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

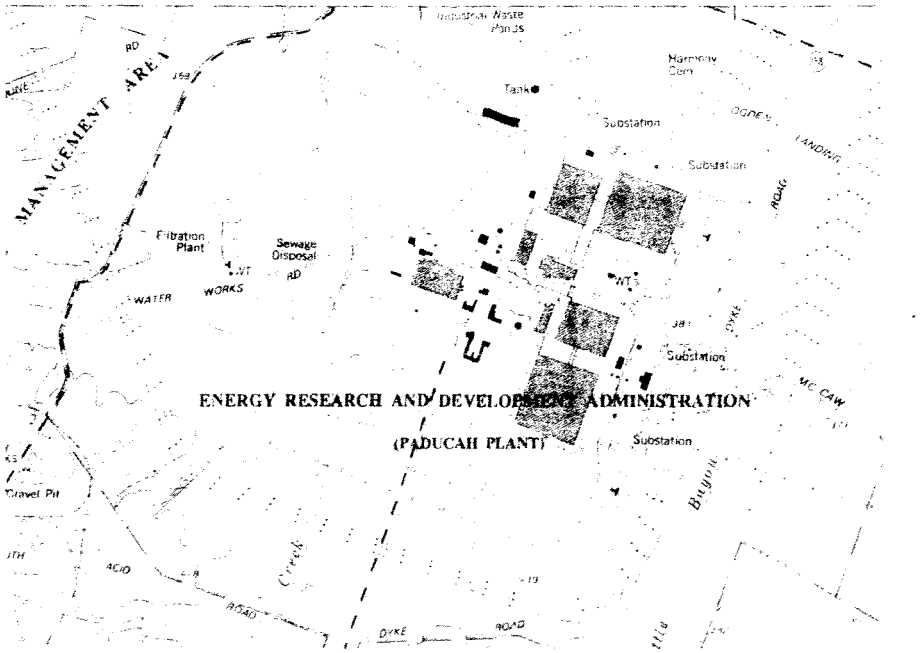
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectic of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge ar Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secor phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomi Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at th Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 an was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office an residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains i business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The Switchyards and Switch Houses supply and control the electrical power to each of the four processing buildings. There are four main switchyard an switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-53 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within th switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processin buildings via overhead metal conduits

Built in 1953, this switch house (C-533-1) was built to relay and regulate electrical power to the C-333 processing building. This is a one-story, reinforce concrete building with a concrete foundation, a flat roof of concrete and exterior walls of smooth concrete. The main (west) façade has two entrances set with projecting concrete bays. Each entrance has a ca. 1990, single-light, steel and glass door. Above each door is a steel awning. The exterior walls of the buildir are scored into rectangular panels. The building has a louvered vent on the south façade. The north façade lacks fenestration and the east façade is n accessible.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-156
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-533-2 Switchyard

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
____ / ____
____ / ____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 31400 ft²
Height 1 story Width ____ Depth ____

16. PLAN:
____ / ____ first
____ / ____ second
____ / ____ third

17. STYLISTIC INFLUENCE:
____ / ____ ; ____ / ____ first
____ / ____ ; ____ / ____ second
____ / ____ ; ____ / ____ third

STYLE DEVELOPMENT:
____ / first ____ / second ____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
0 / n/a original
0 / n/a replacement

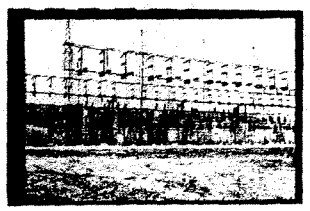
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
O	/ n/a	0	/ n/a	original
O	/ n/a	0	/ n/a	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ____ / ____ / ____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich the uranium feed to their specifications.

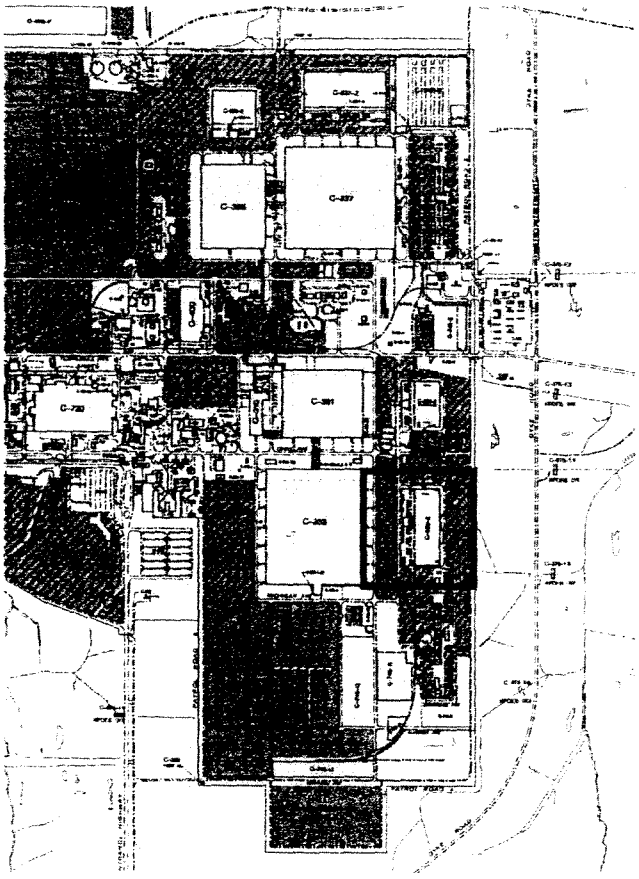
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~
7-12-16

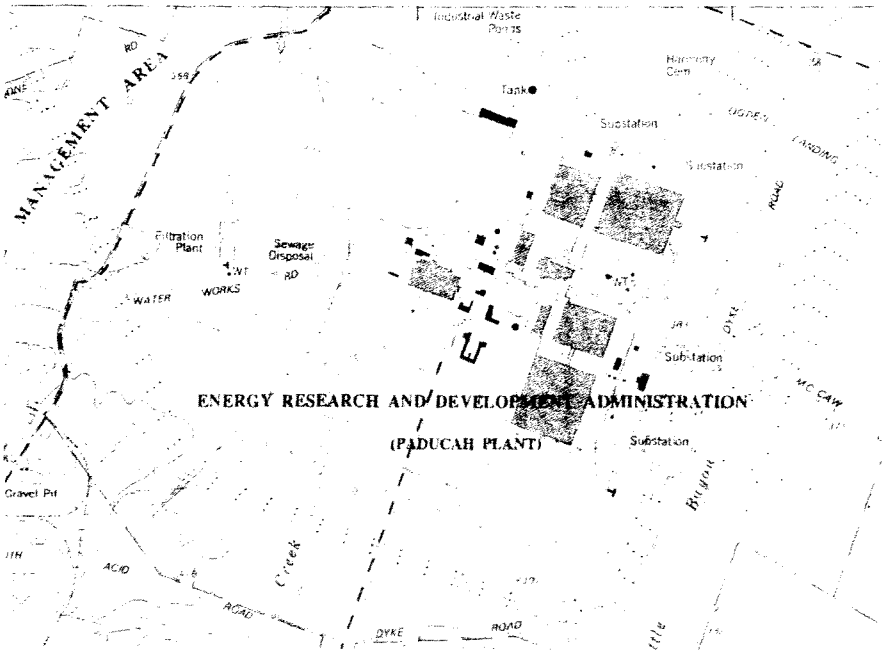
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectic of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge ar Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secor phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomi Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at th Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

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The **Switchyards and Switch Houses** supply and control the electrical power to each of the four processing buildings. There are four main switchyard an switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-53 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within th switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processin buildings via overhead metal conduits

Building C-533-2 is a switchyard erected in 1953 which supplies electrical power to the C-333 processing plant. The switchyard is composed of a rectangul concrete and gravel pad containing electrical transformers. These transformers are of steel and supply power via the elevated platforms to Building C-333.

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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The **Switchyards and Switch Houses** supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Switchyard C-533-2 contains four identical plan Fire Valve Houses to provide fire protection for the switchyard's electrical equipment. Built in 1953, these buildings, C-533-3A, B, C and D, have a poured concrete foundation, a shed roof of transite and exterior walls of transite. The building's entrances have origina double doors of three-light, steel and glass design. Windows are original, four-light and nine-light, steel and glass fixed design.

~~OFFICIAL USE ONLY~~

7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-157-160
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-533-3A-D Fire Valve House No. 1 – 4

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 144 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____ ; ____/_____ first
____/_____ ; ____/_____ second
____/_____ ; ____/_____ third

18. STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

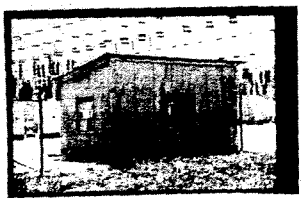
CONFIGURATION	COVERING	
P / shed	8 / transite panels	original
P / shed	8 / transite panels	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.

C-533-3A, C-533-3B, C-533-3C and C-533-3D are **identical** in architectural plan. The photo below is a representative example of all four buildings.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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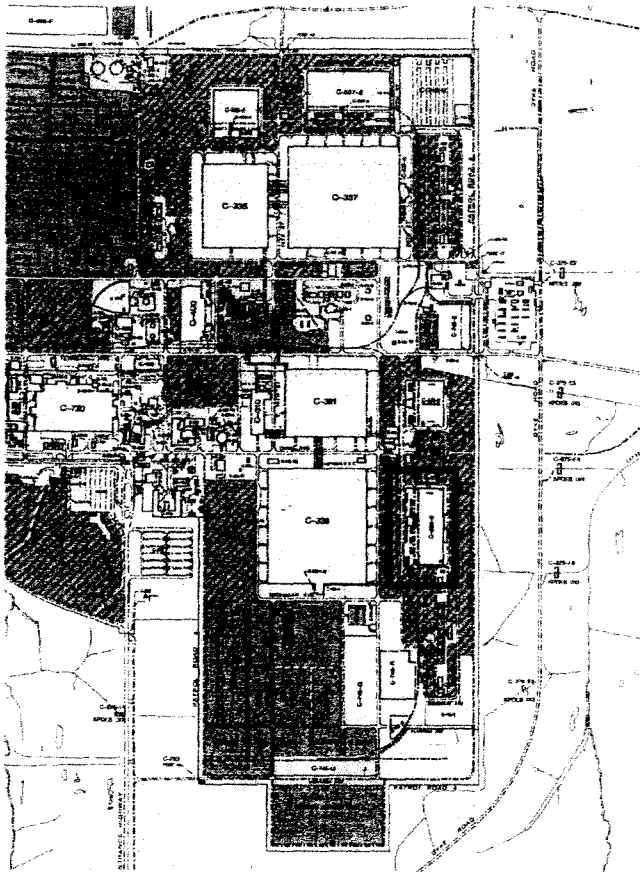
TH-742-12

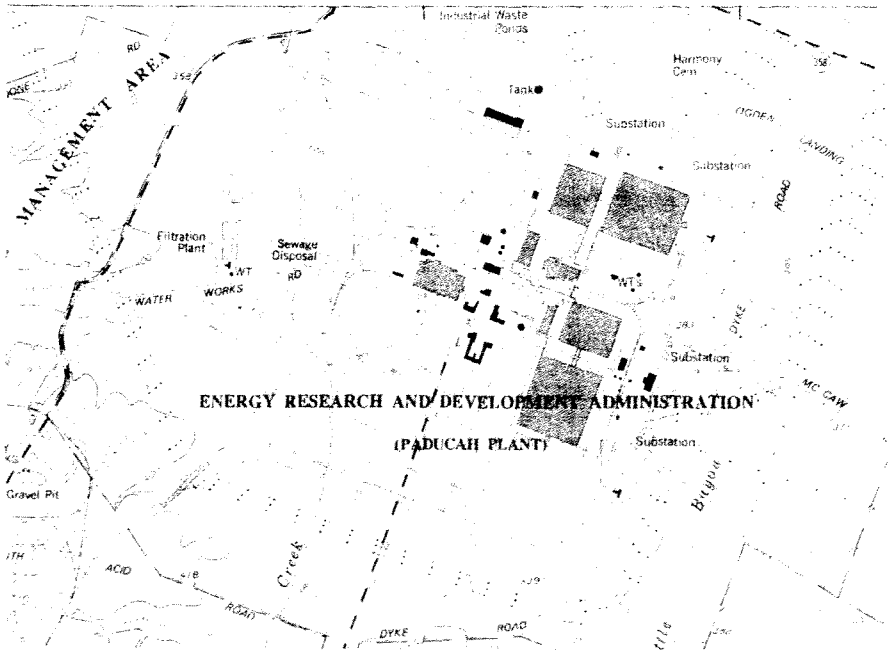
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ NR 7/2-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-161
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-535-1 Switch House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 28000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____; _____/_____ first
____/_____; _____/_____ second
____/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete original
S / smooth poured concrete replacement

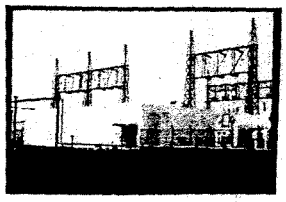
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ ____/ _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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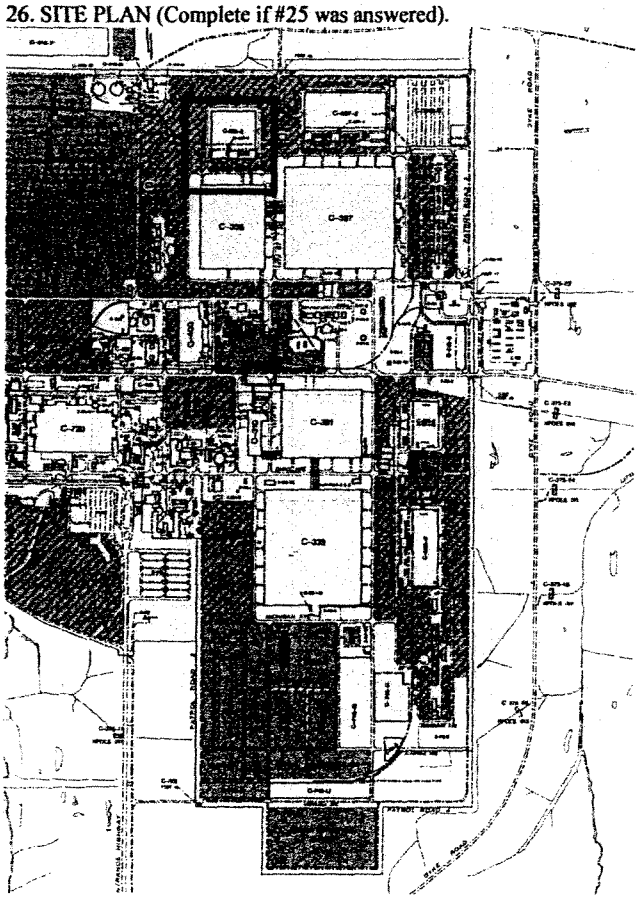
7-12-12

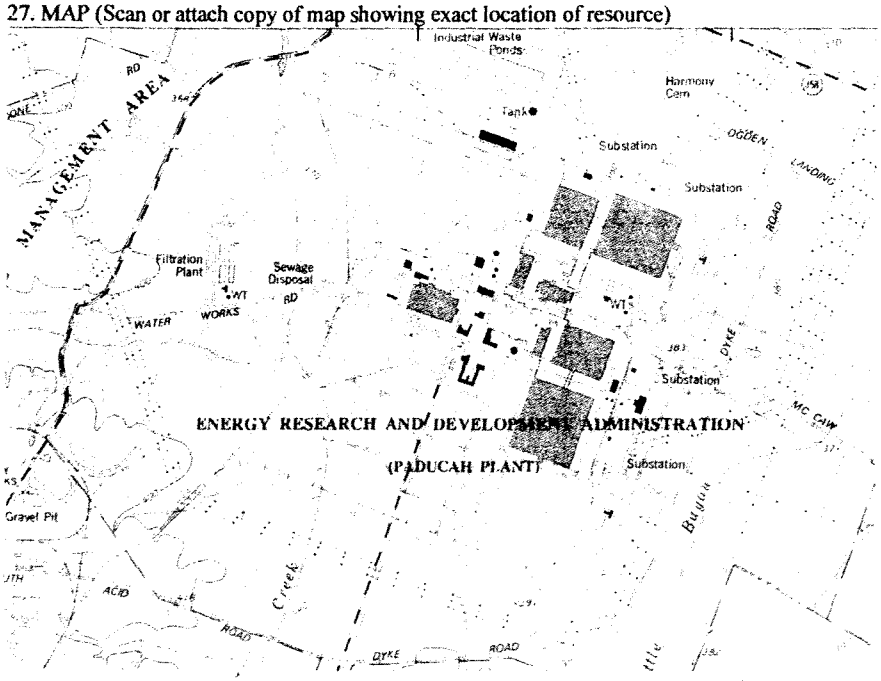
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The **Switchyards and Switch Houses** supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Constructed in 1954, Building C-535-1 is a one-story, reinforced concrete electrical switch house which regulates power for Building C-335. It has a concrete foundation, a built-up flat roof and an exterior of smooth concrete. On the main (west) façade is an entrance with a ca. 1990, single-light, steel and glass door. Over the entrance is a wood and metal canopy. There is no fenestration on the south façade. On the north façade are two, louvered, steel vents. The east façade is not accessible.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-162
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-535-2 Switchyard

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 165680 ft²
Height _____ Width _____ Depth _____

16. PLAN:
___/_____ first
___/_____ second
___/_____ third

17. STYLISTIC INFLUENCE:
___/_____; _____/_____ first
___/_____; _____/_____ second
___/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
0 / n/a original
0 / n/a replacement

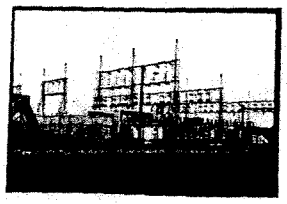
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
0 / n/a	0 / n/a	original
0 / n/a	0 / n/a	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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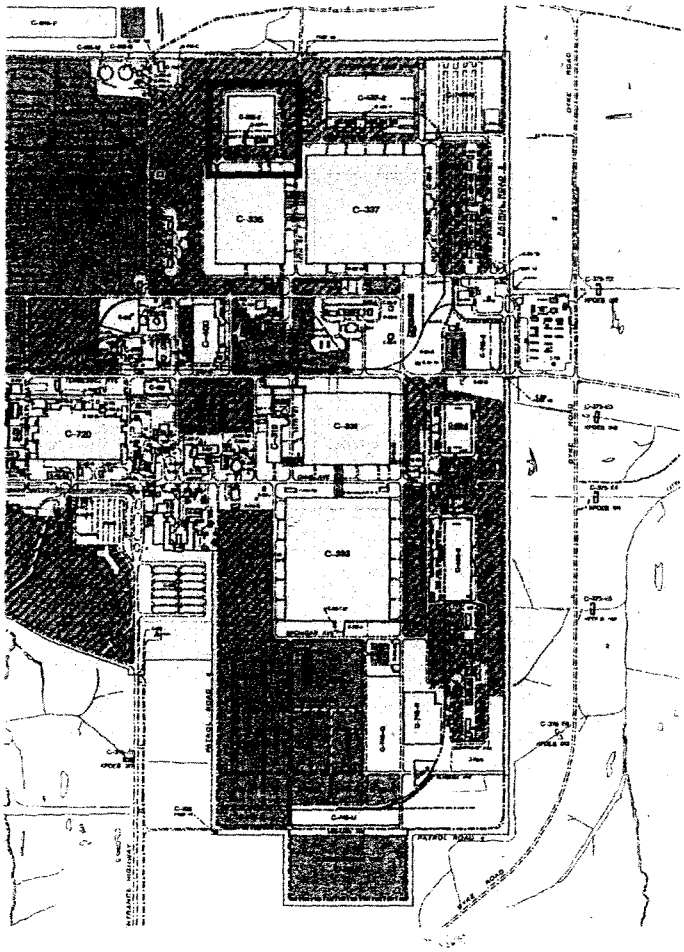
2-12-12

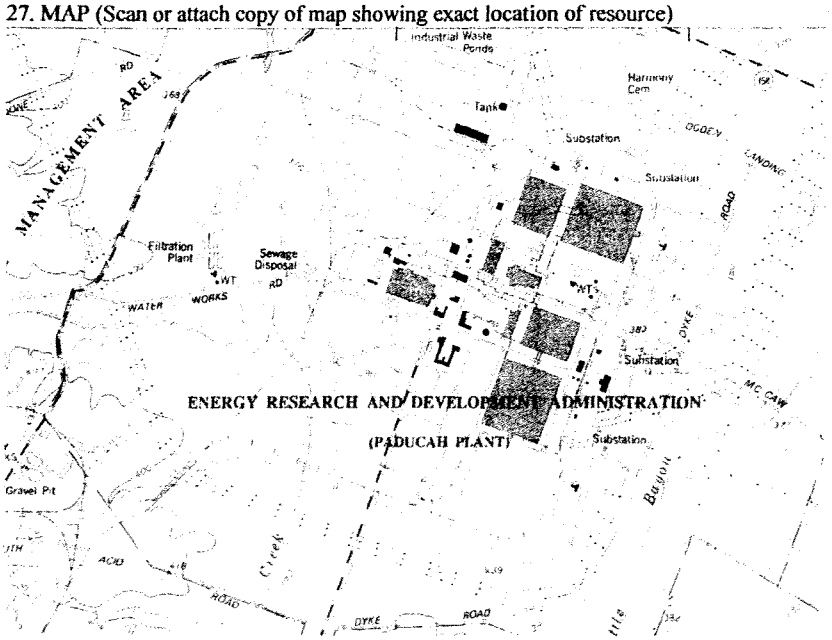
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The Switchyards and Switch Houses supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Building C-535-2 is a switchyard erected in 1954 that supplies electrical power to the C-535 process building. The switchyard is composed of a rectangular concrete and gravel pad containing electrical transformers. These transformers are of steel and supply power via the elevated platforms to Building C-535.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-163
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-535-3A & B - Fire Valve House No. 1 and 2

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / poured concrete original
P / 0 / poured concrete subsequent

15. DIMENSIONS: 144 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____; ____/_____ first
____/_____; ____/_____ second
____/_____; ____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / concrete original
Q / concrete replacement

21. ROOF CONFIGURATION/COVERING:

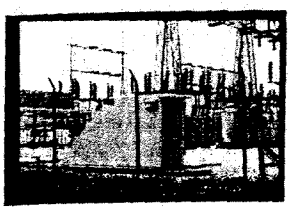
CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ ____/ _____
Write resource # on back of all prints.

C-535-3A & C-535-3B are
identical
in architectural plan.
The photo below is a representative example of all four buildings.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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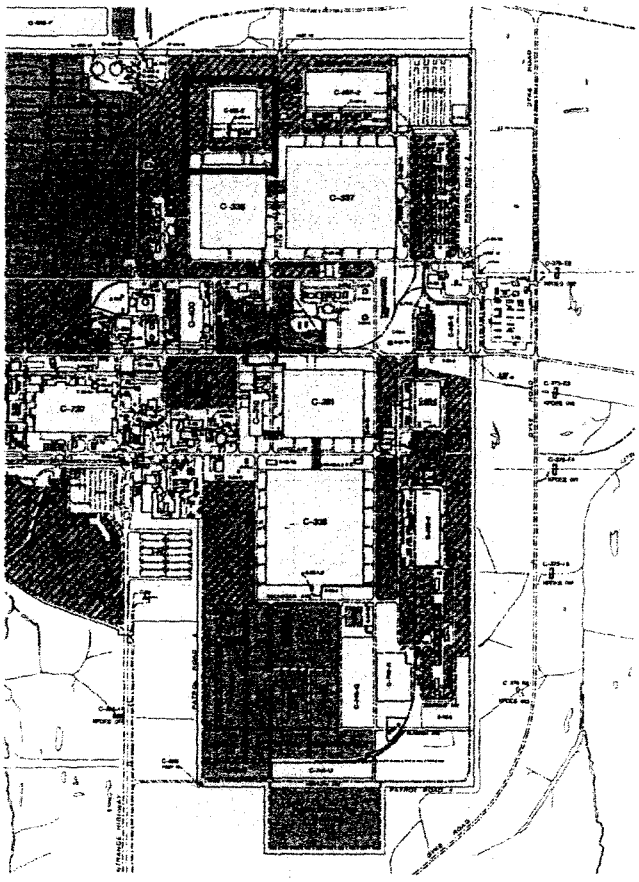
7-12-12

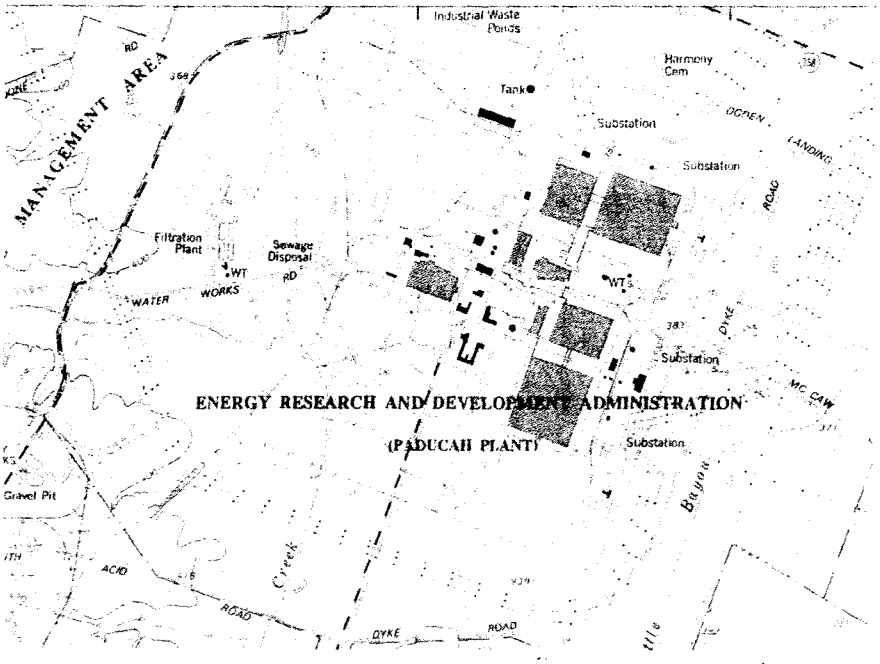
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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C-535-3A and C-535-3B, also referred to as Fire Valve House No. 1 and No. 2, were built in 1954 and provide fire protection service for the adjacent switchyard and switch house. These are identical in plan, one-story buildings of concrete construction, a poured concrete foundation, and a flat roof and exterior walls of concrete. The buildings have ca. 1990 two-light steel and glass doors.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY _____
RESOURCE # MCN-164
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-535-4 Test Shop

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 480 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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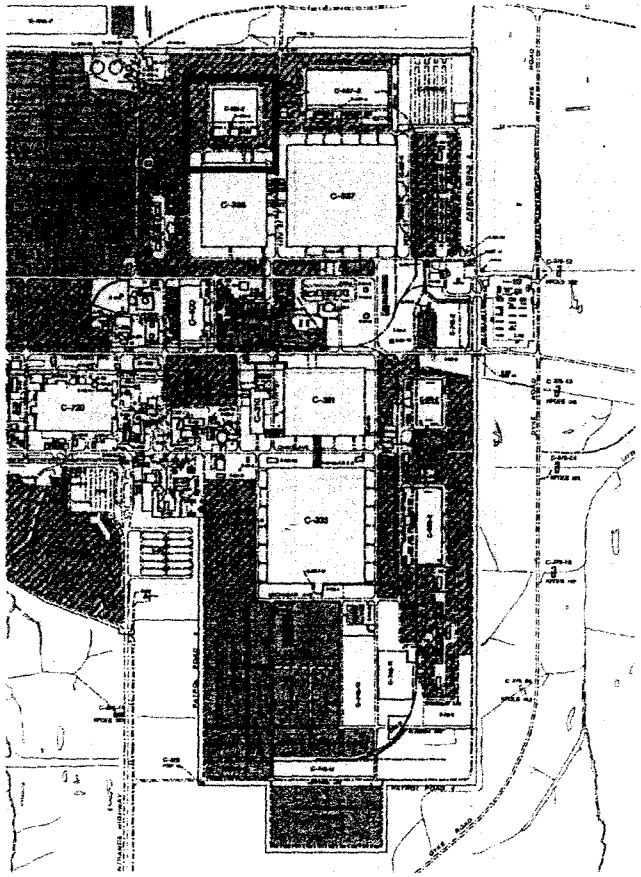
7-12-12

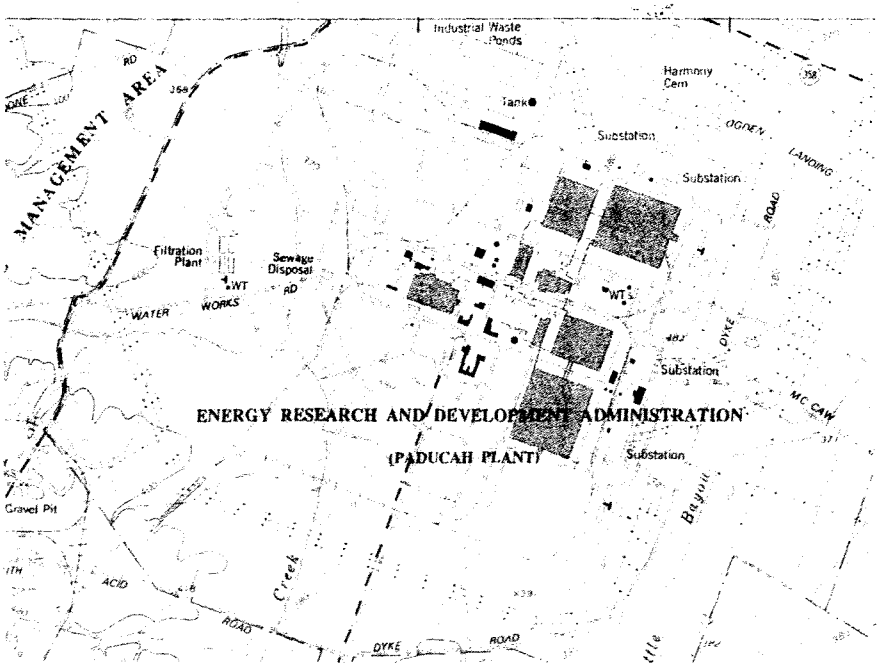
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY

#712-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The **Switchyards and Switch Houses** supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Building C-535-4 is a steel, one-story buildings used as a test shop in the switchyard area. Built in 1954, this building has a poured concrete foundation, a built-up, flat roof and an exterior of transite siding. The building has original, steel and glass doors and six- and nine-light, steel and glass windows. The building is located in a restricted area and a more detailed description is not possible. Photographs of this property are also restricted.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-165
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-536 Relay House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 144 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____/_____ first
_____/_____ second
_____/_____ third

17. STYLISTIC INFLUENCE:
_____/_____;_____/_____ first
_____/_____;_____/_____ second
_____/_____;_____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete original
S / smooth poured concrete replacement

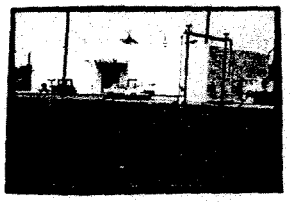
21. ROOF CONFIGURATION/COVERING:

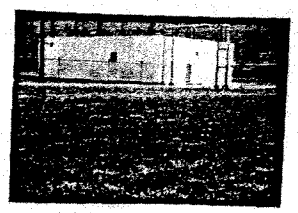
CONFIGURATION		COVERING		
Q	/ flat	6	/ built-up	original
Q	/ flat	6	/ built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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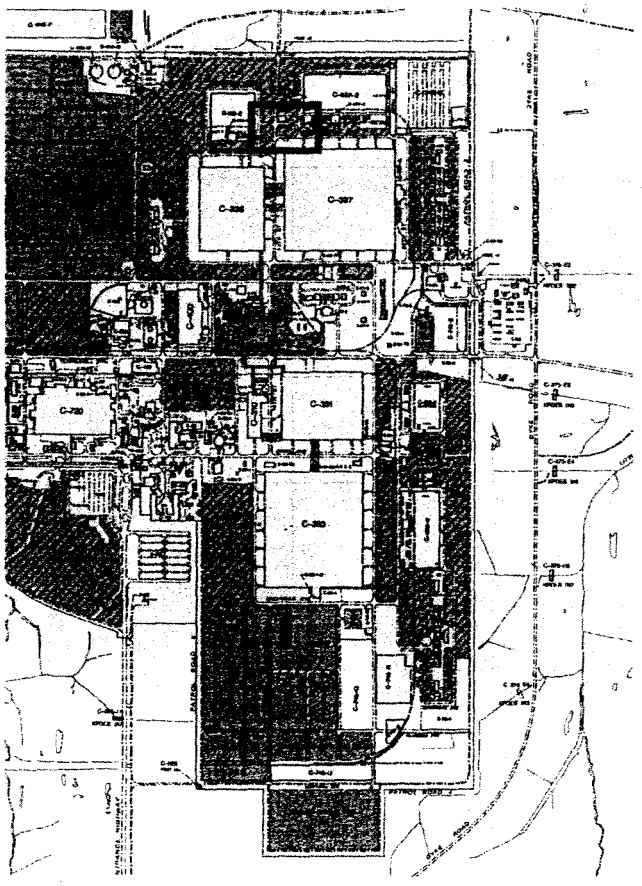
7-12-12

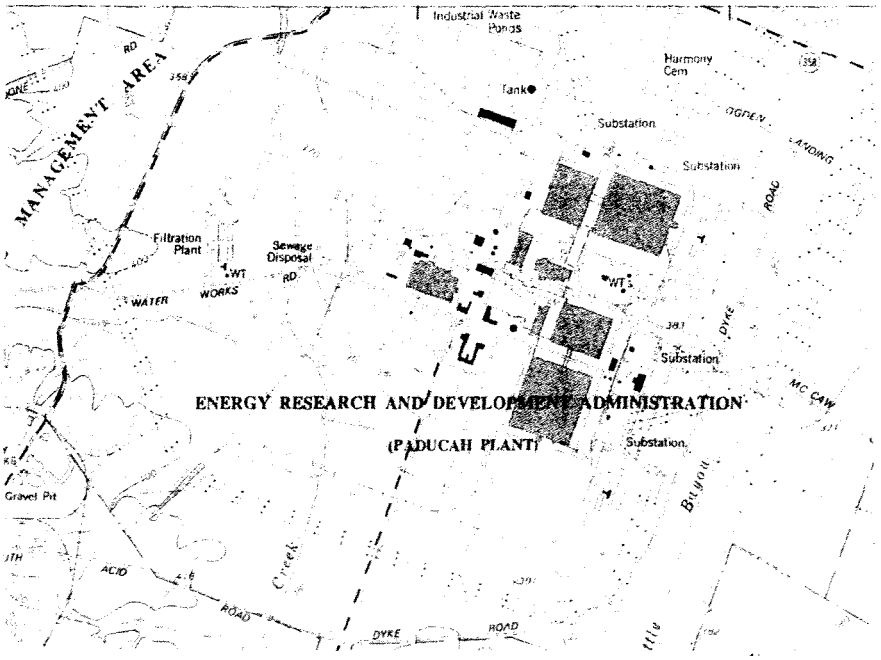
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7242

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The **Switchyards and Switch Houses** supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Built in 1954, this is a one-story, reinforced concrete, electrical relay house. The building has a poured concrete foundation, a built-up, flat roof and exterior walls of smooth concrete. On the main (south) façade is an entrance with ca. 1990, three-light, steel and glass double doors. Over the entrance is a wood and metal canopy. On the west façade is an entrance with a ca. 1980, solid steel door. On the east façade is a similar door. The only other fenestration on the west, east and north facades are rectangular, louvered, steel vents.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY: _____
RESOURCE # MCN-166
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-537-1 Switch House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 42140 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete original
S / smooth poured concrete replacement

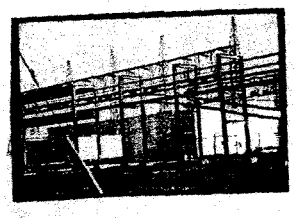
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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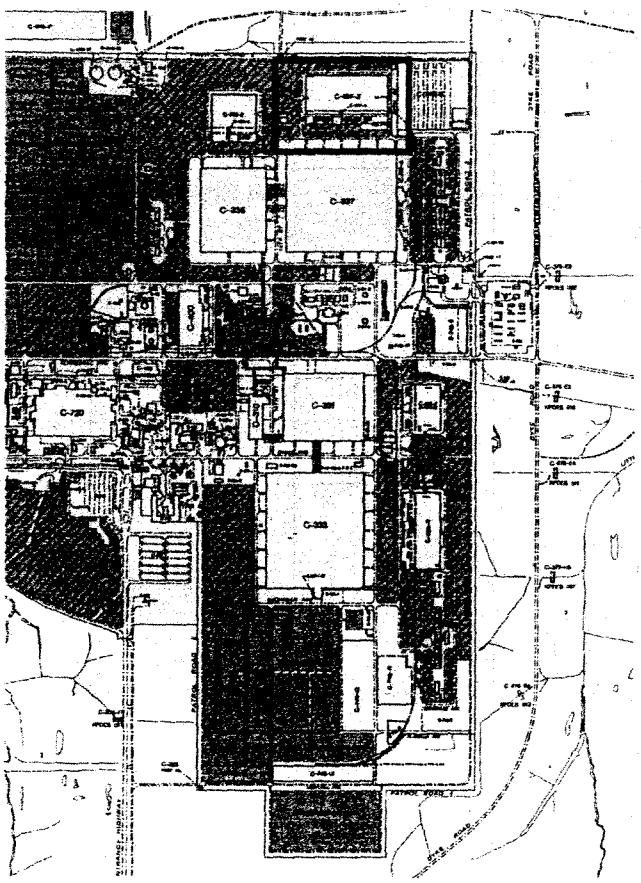
7-12-12

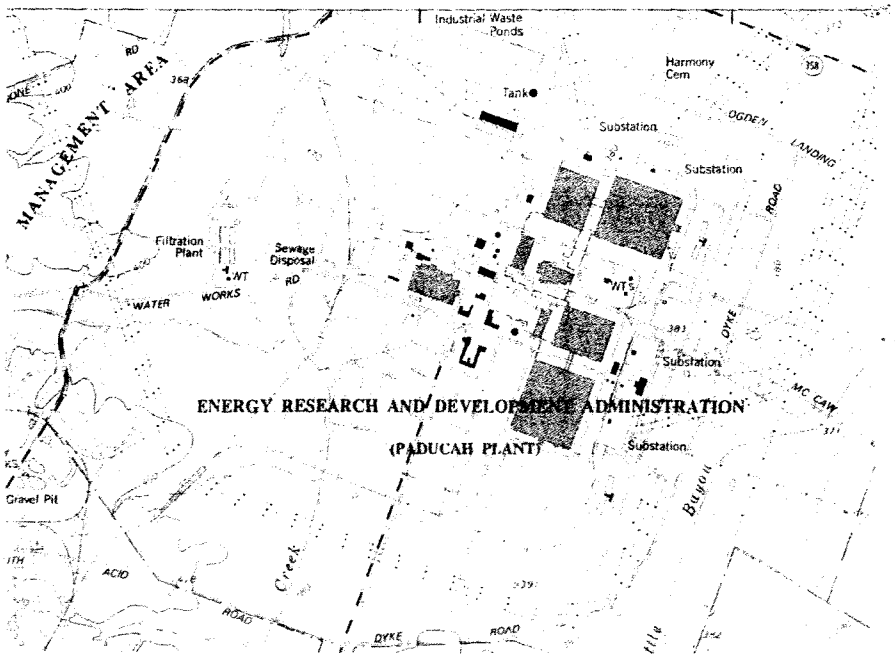
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7212

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The Switchyards and Switch Houses supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Building C-537-1 is a one-story, reinforced concrete electrical switch house built in 1954 which regulates power for processing building C-337. It has a concrete foundation, a built-up, flat roof and an exterior of smooth concrete. On the main (west) façade is an entrance with a ca. 1990, single-light, steel and glass door. Over the entrance is a wood and metal canopy. There is no fenestration on the south façade. On the north façade are two, louvered, steel vents. The east façade is not accessible.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-167
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-537-2 Switchyard

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 284200 ft²
Height _____ Width _____ Depth _____

16. PLAN:
_____/_____ first
_____/_____ second
_____/_____ third

17. STYLISTIC INFLUENCE:
_____/_____; _____/_____ first
_____/_____; _____/_____ second
_____/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
0 / n/a original
0 / n/a replacement

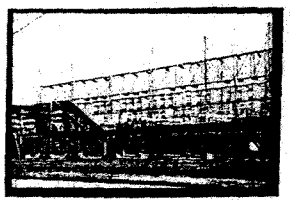
21. ROOF CONFIGURATION/COVERING:

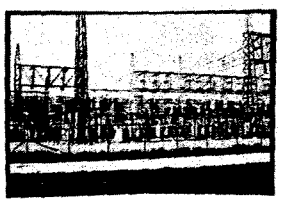
CONFIGURATION		COVERING		
O	/ n/a	0	/ n/a	original
O	/ n/a	0	/ n/a	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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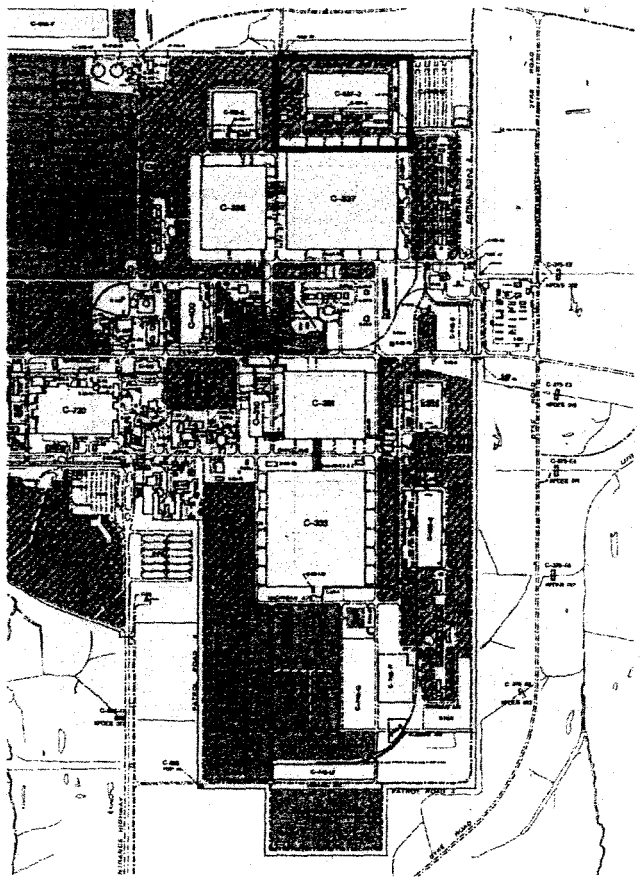
742-12

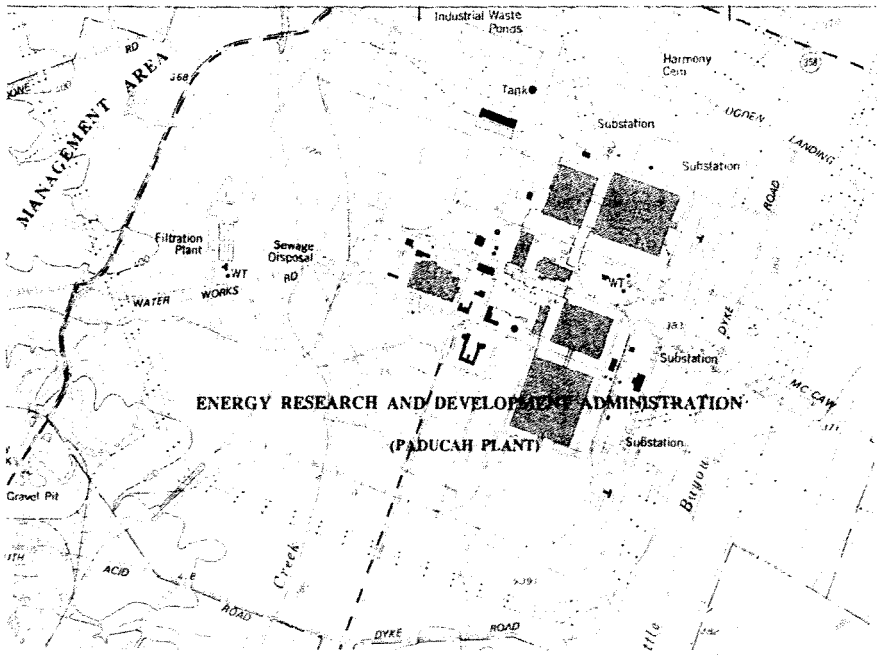
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

KY 212-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Building C-537-2 is a switchyard erected in 1954 that supplies electrical power to the C-537 process building. The switchyard is composed of a rectangular concrete and gravel pad containing electrical transformers. These transformers are of steel and supply power via the elevated platforms to Building C-537.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-168
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-537-3A-D - Fire Valve House No. 1 - 4

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / poured concrete original
P / 0 / poured concrete subsequent

15. DIMENSIONS: 144 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
S / poured concrete replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

C-537-3A, C-537-3B, C-537-3C and C-537-3D are
identical
in architectural plan.
The photo below is a representative example of all four buildings.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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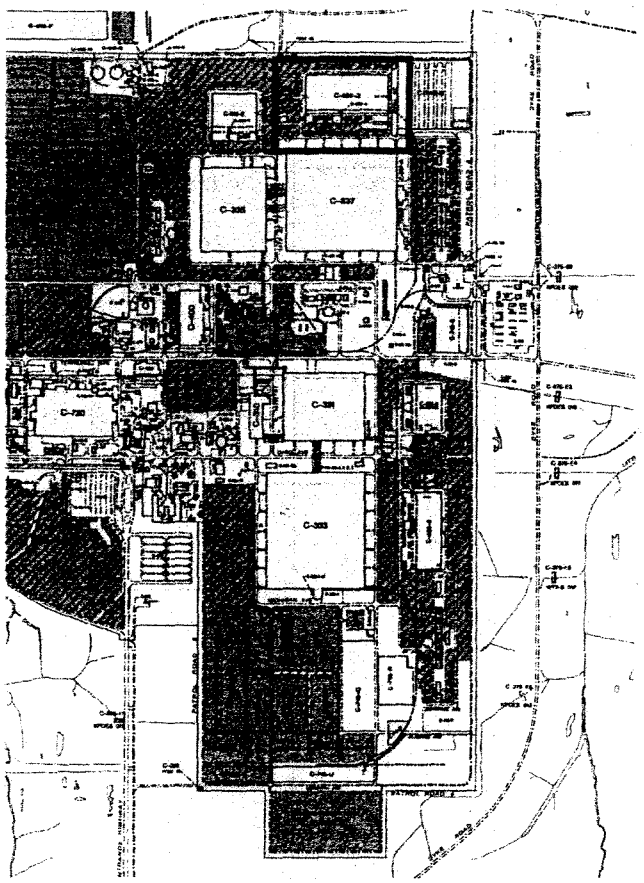
7-12-12

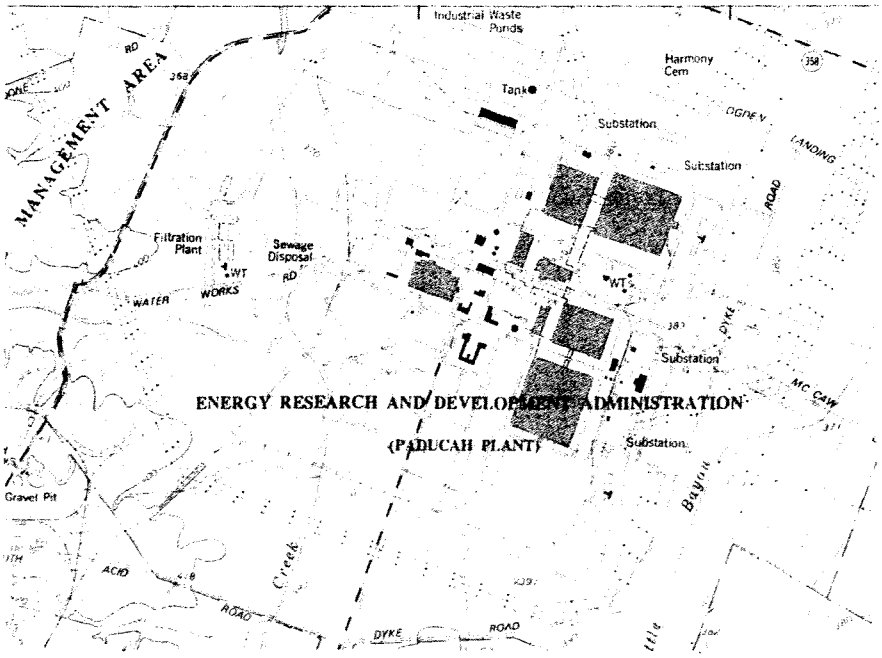
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7121-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The Switchyards and Switch Houses supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Switchyard C-537-2 contains four identical plan Fire Valve Houses (1-4) to provide fire protection for the switchyard's electrical equipment. Built in 1954, these buildings, C-537-3A, B, C and D, are similar plan one-story buildings of concrete construction, a poured concrete foundation, and a flat roof and exterior walls of concrete. The buildings have ca. 1990 steel and glass doors.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-169
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-537-4 Test Shop

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 480 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___/_____ first
___/_____ second
___/_____ third

17. STYLISTIC INFLUENCE:
___/_____; _____/_____ first
___/_____; _____/_____ second
___/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.

PHOTO RESTRICTED

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

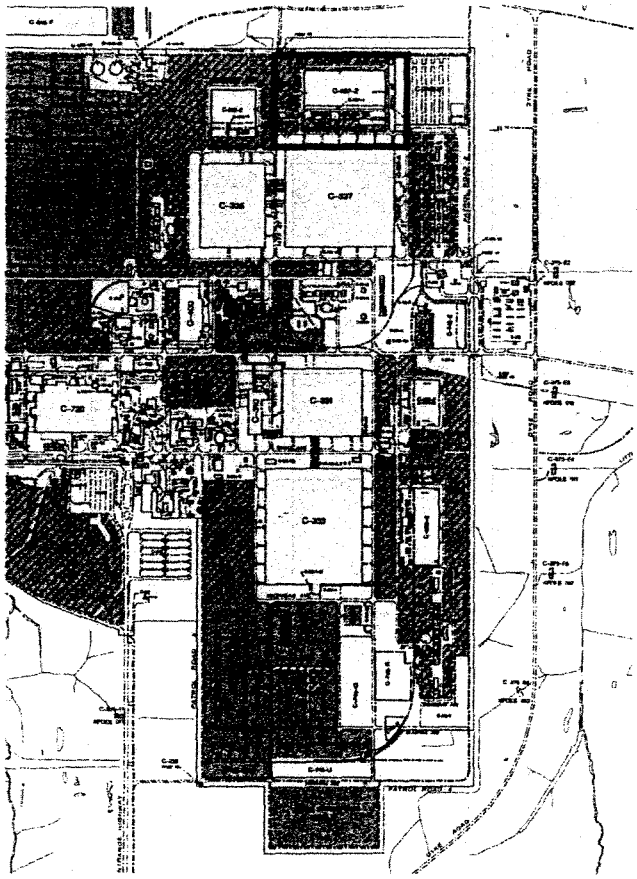
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TA
74212

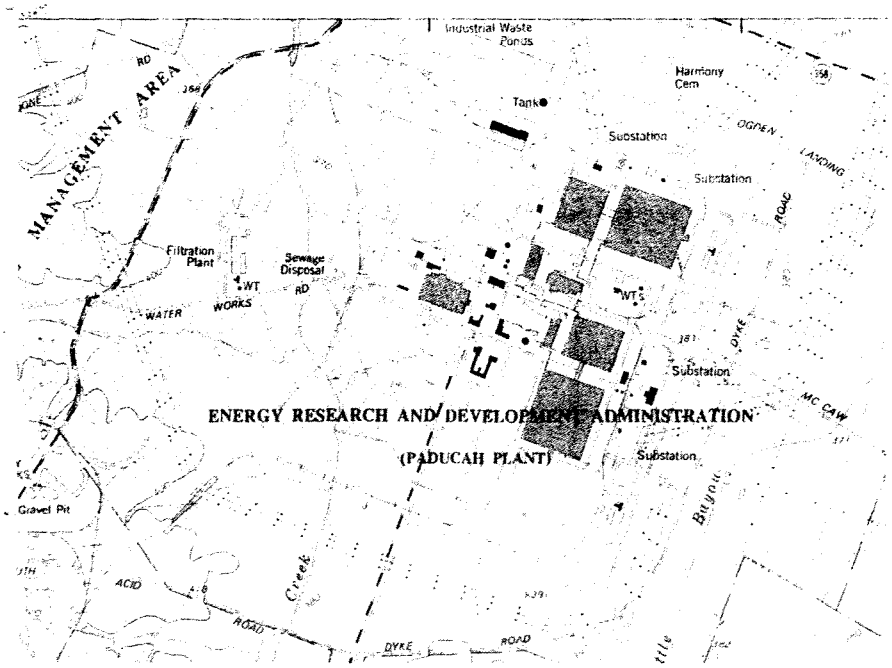
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The Switchyards and Switch Houses supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Building C-537-4 is a steel, one-story buildings used as test shops in the switchyard areas. Built in 1954, the building has a poured concrete foundation, a built-up, flat roof and an exterior of transite siding. The building has original, steel and glass doors and six- and nine-light, steel and glass windows. The building is located in a restricted area and a more detailed description is not possible. Photographs of this property was also restricted.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-170
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-540-A Oil Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 312 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / transite panels original
O / transite panels replacement

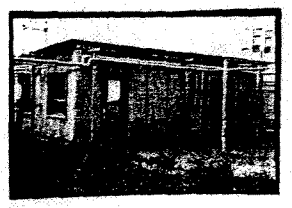
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
P	/ shed	8	/ transite panels	original
P	/ shed	8	/ transite panels	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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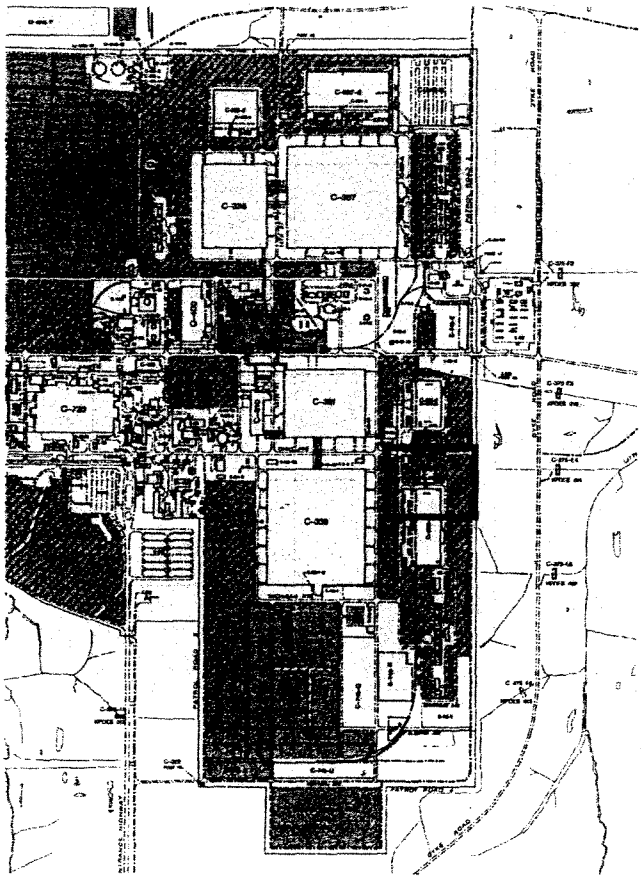
7-21-2

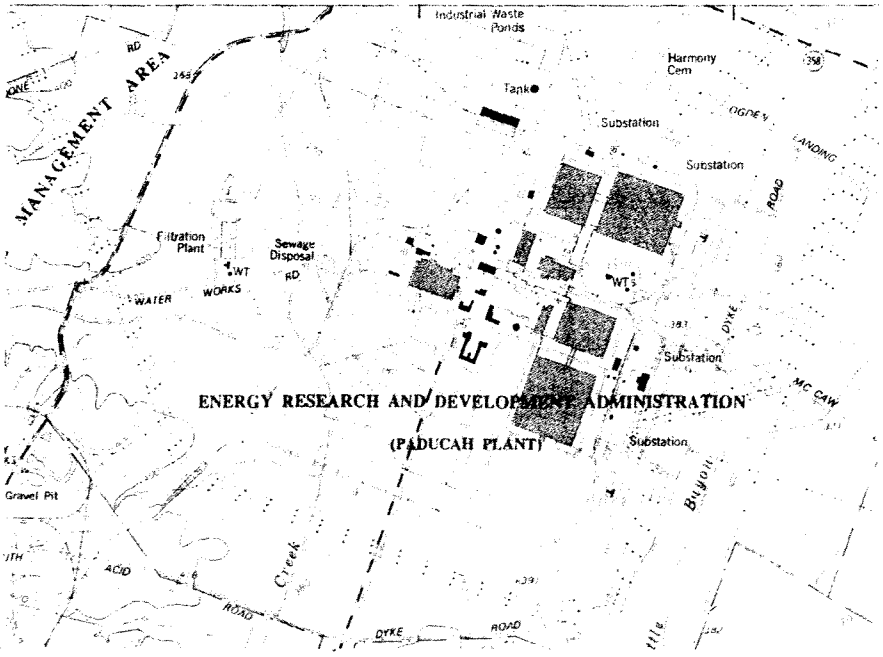
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Built in 1952, this is a support facility for the adjacent electrical equipment. The building is one-story, of steel construction, and has a poured concrete foundation, a shed roof of transite panels and exterior walls of transite. On the main (E) façade is an entrance with original, paired, single-light glass and steel doors. The window on this façade is nine-light, steel and glass awning design. A similar window is located on the south façade. On the west façade is a nine-light awning window and an entrance with a single-light, steel and glass door. On the north façade are two windows-the west bay window is an original, six-light, steel and glass awning design while the east bay window has been removed and a window air-conditioning unit added.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-171
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-540-B Oil Storage Tank (northwest)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 15000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

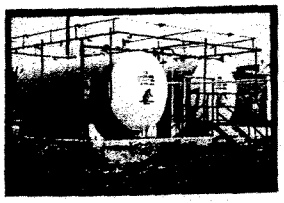
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	8 / steel	original
O / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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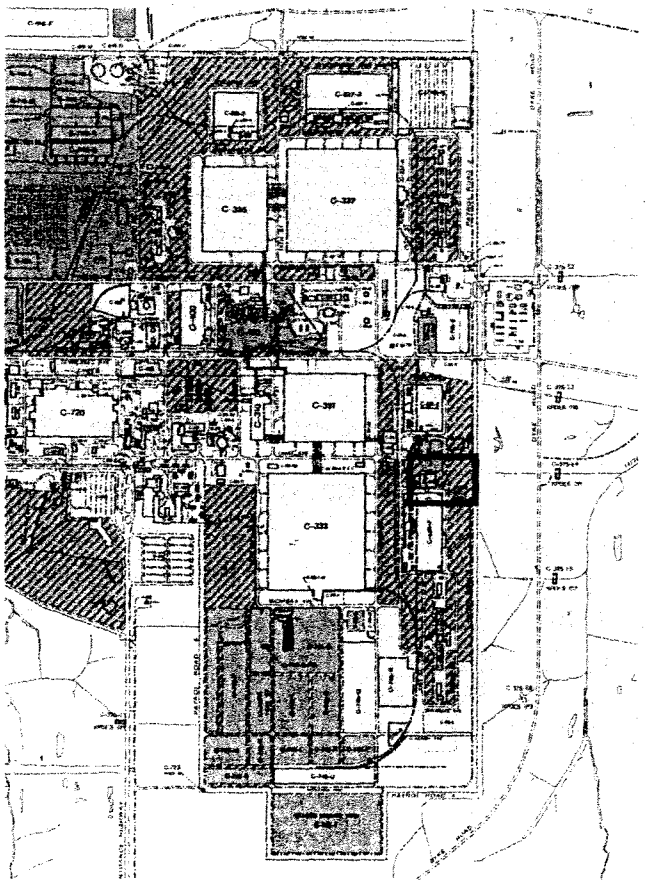
7-12-L

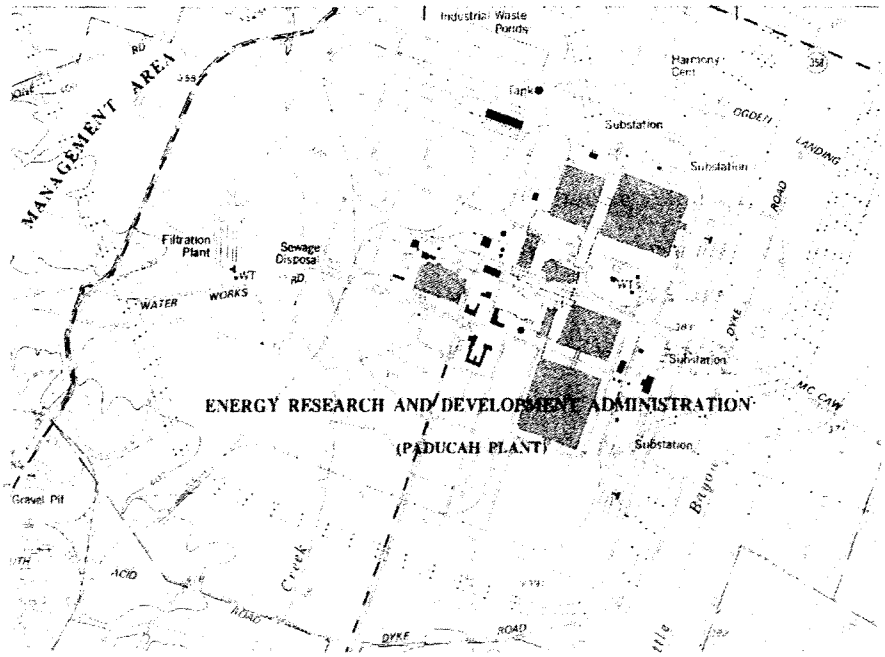
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

KENTUCKY HISTORIC RESOURCES -
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual

COUNTY McCracken
RESOURCE # MCN-179
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-541-E Oil Storage Tank (southeast)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 7500 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

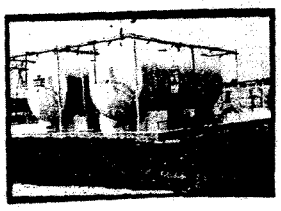
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	8 / steel	original
O / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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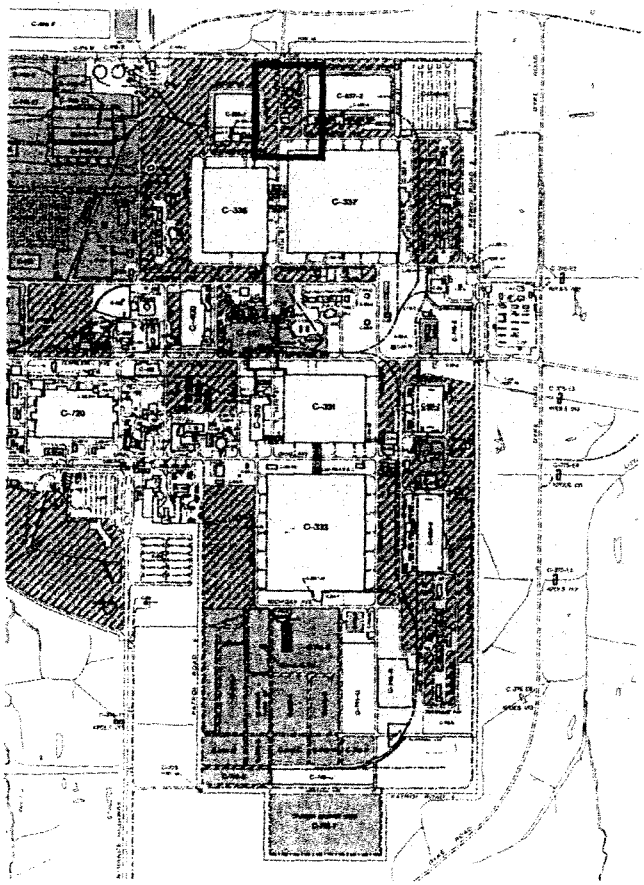
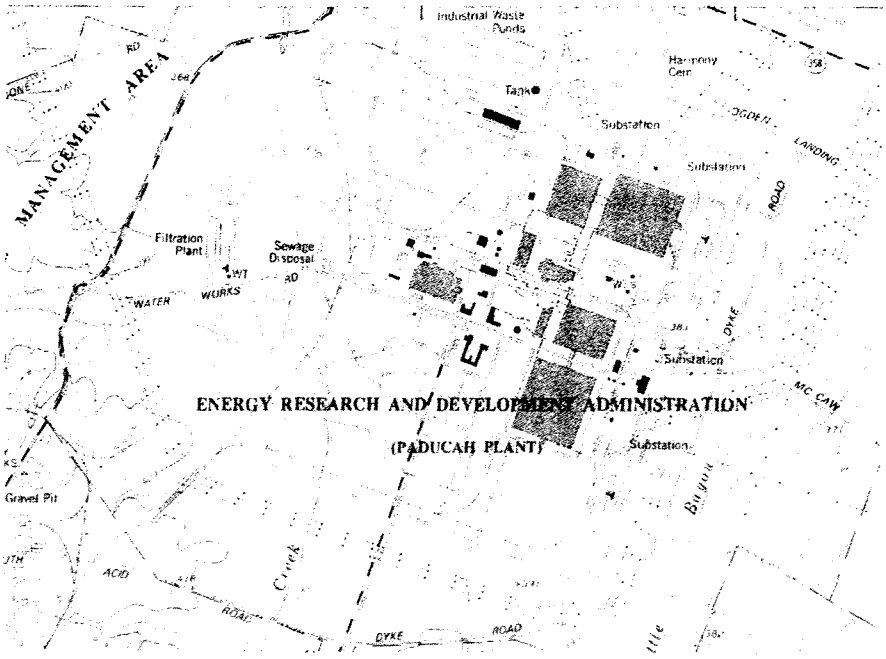
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

C-540-B, C, D & E are oil storage tanks. D & E are east of the pump house while B and C are west of the pump house. These storage tanks are of steel and rest on concrete foundations. Both tanks are set within below grade concrete basins.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-172
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-540-C Oil Storage Tank (southwest)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 15000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	8 / steel	original
O / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

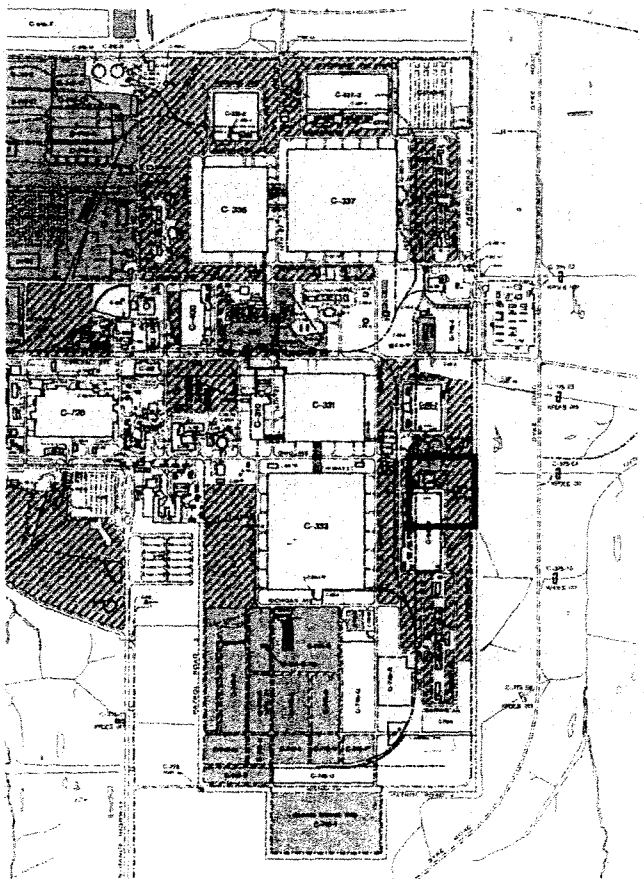
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
71272

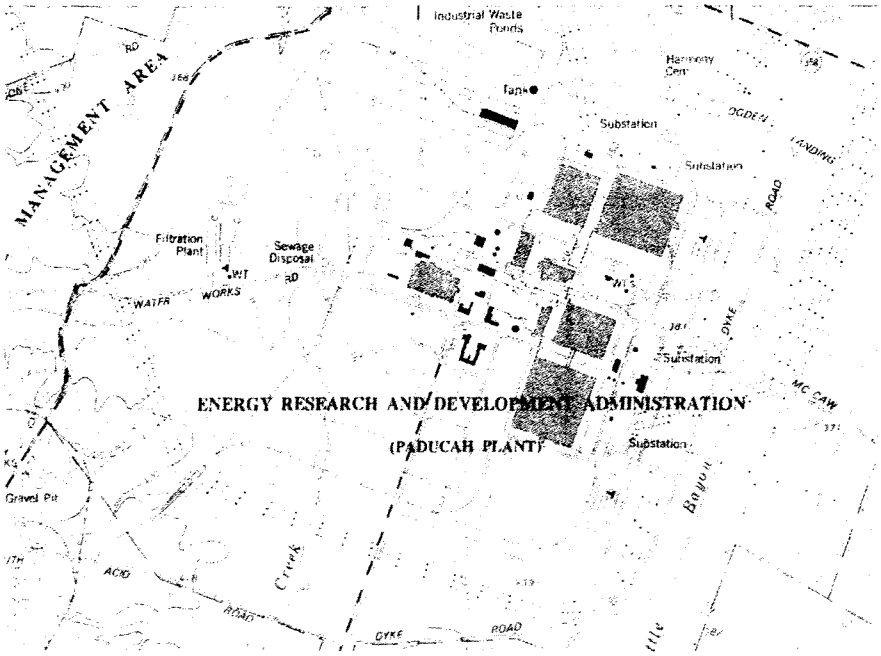
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

C-540-B, C, D & E are oil storage tanks. D & E are east of the pump house while B and C are west of the pump house. These storage tanks are of steel and rest on concrete foundations. Both tanks are set within below grade concrete basins.

~~OFFICIAL USE ONLY~~

7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-173
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-540-D Oil Storage Tank (northeast)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 7500 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

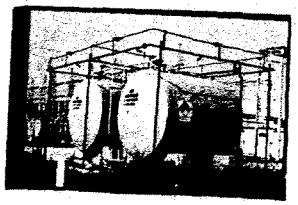
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
O	/ flat	8	/ steel	original
O	/ flat	8	/ steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

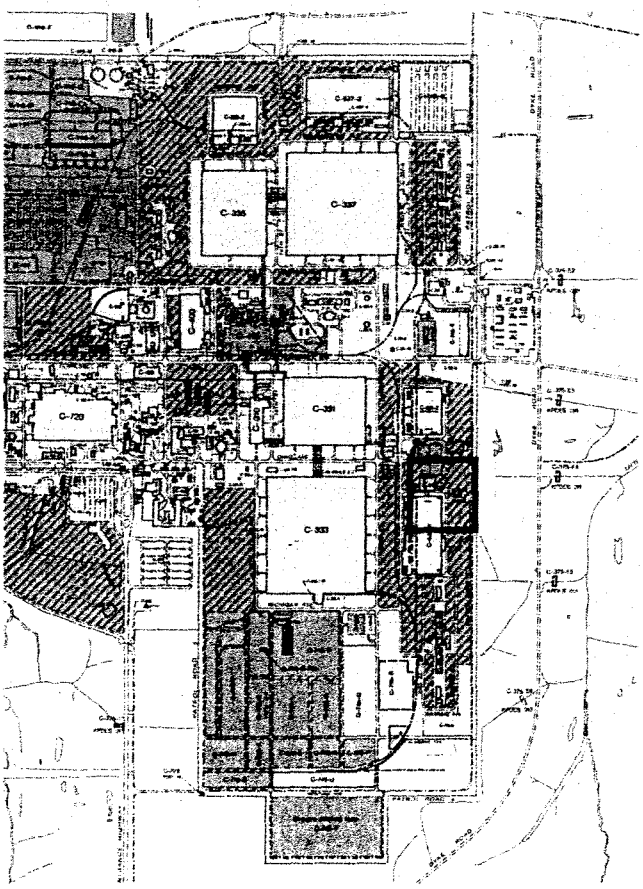
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ 74
7-12-12

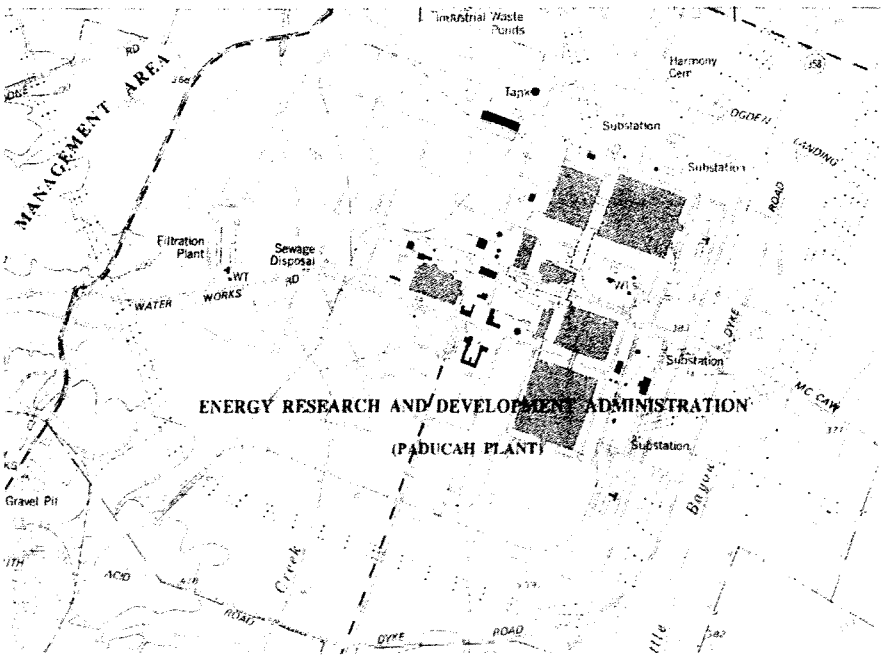
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

C-540-B, C, D & E are oil storage tanks. D & E are east of the pump house while B and C are west of the pump house. These storage tanks are of steel and rest on concrete foundations. Both tanks are set within below grade concrete basins.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY ____
RESOURCE # MCN-174
RELATED GROUP # ____
EVALUATION ____
SHPO EVALUATION ____
DESTROYED ____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-540-E Oil Storage Tank (southeast)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
____ / ____
____ / ____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 15000 gallons
Height ____ Width ____ Depth ____

16. PLAN:
O / cylindrical first
____ / ____ second
____ / ____ third

17. STYLISTIC INFLUENCE:
____ / ____ ; ____ / ____ first
____ / ____ ; ____ / ____ second
____ / ____ ; ____ / ____ third

18. STYLE DEVELOPMENT:
____ / first ____ / second ____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	8 / steel	original
O / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: ____ / ____ / ____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

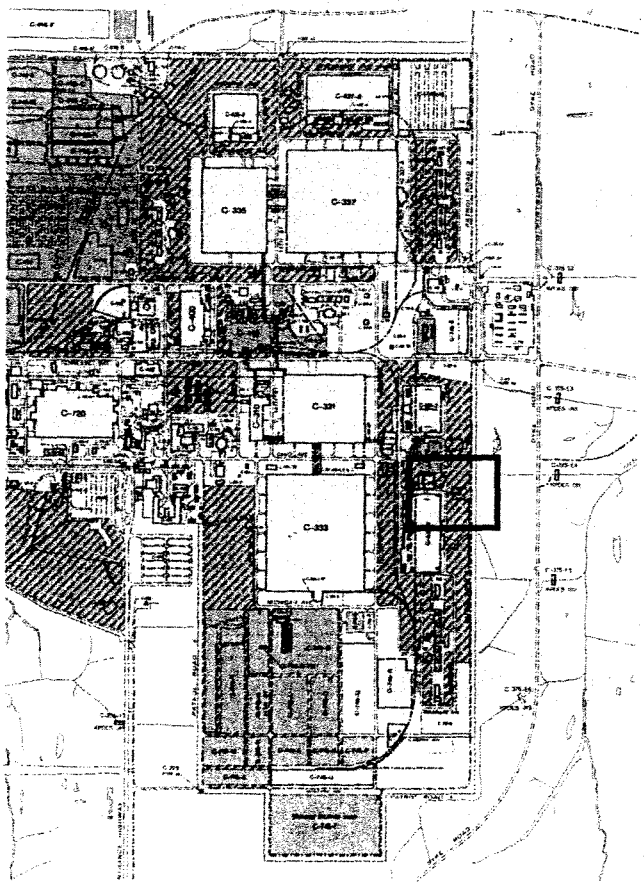
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TF
7-12-12

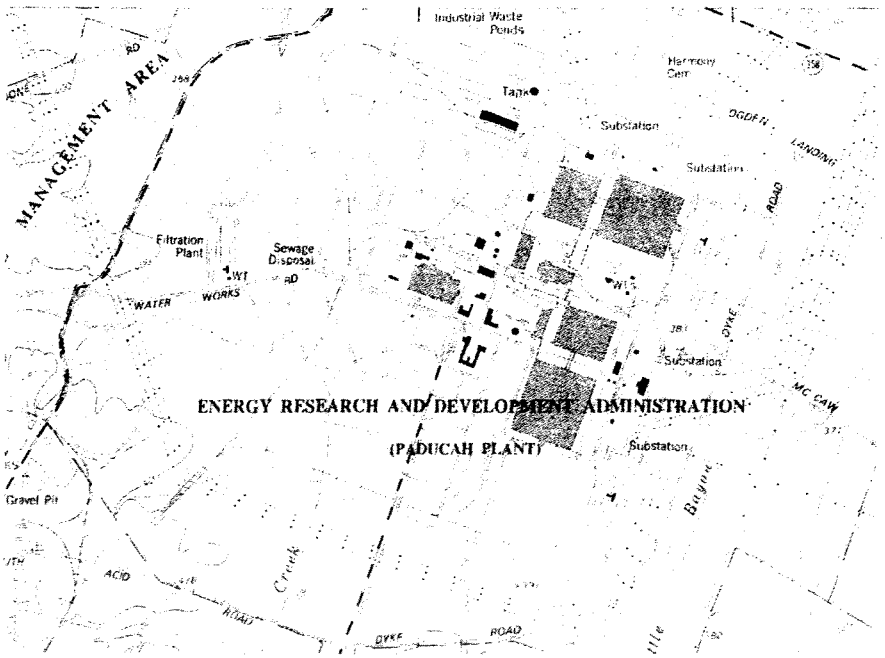
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ 7#

7-12-12

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-175
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-541-A Oil Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 312 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

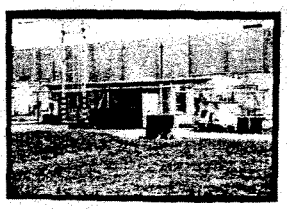
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	8 / transite panels	original
P / shed	8 / transite panels	replacement

22. CONDITION: 2 / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

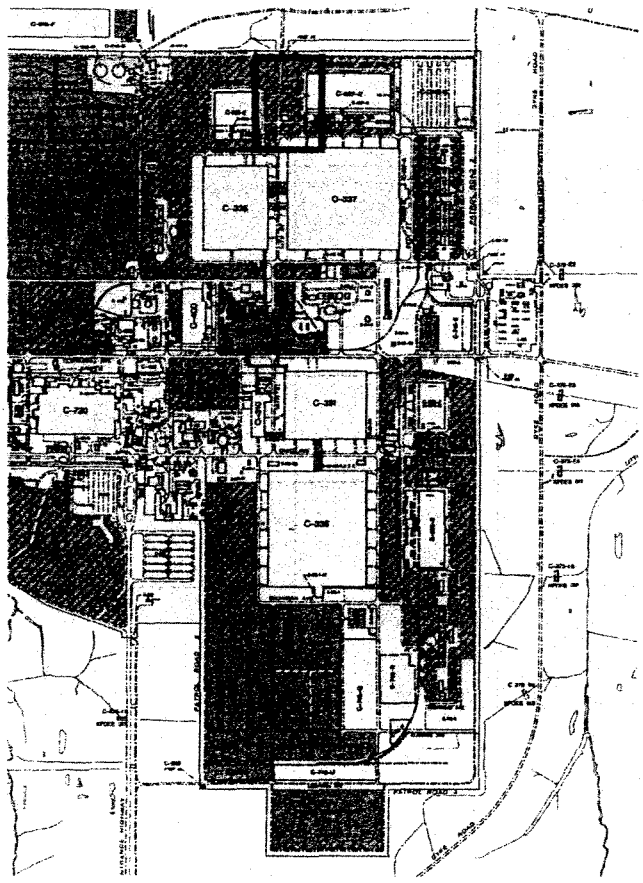
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH 7-12-2

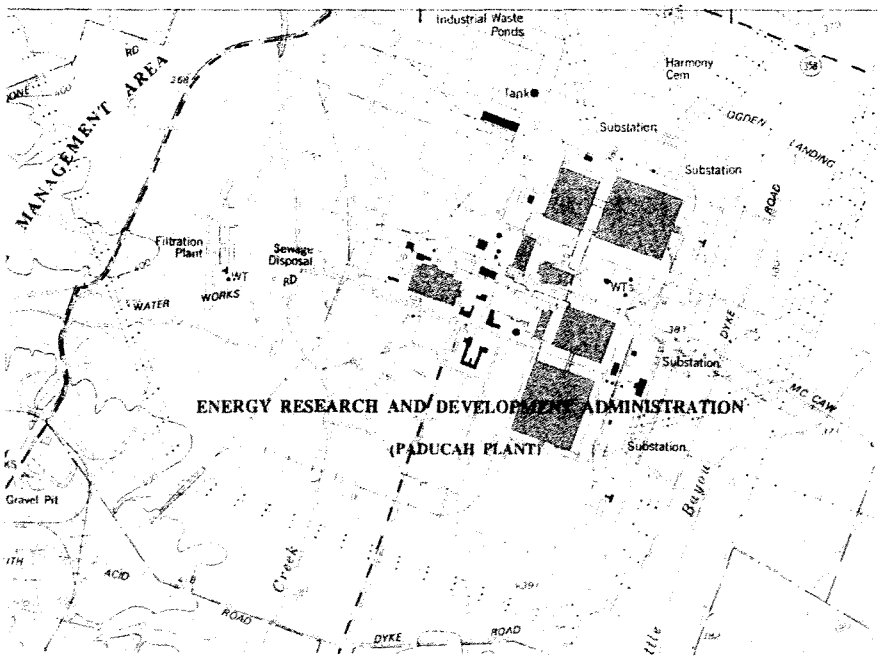
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

The Switchyards and Switch Houses supply and control the electrical power to each of the four processing buildings. There are four main switchyard and switch house complexes which provide electrical power to the processing buildings: C-531 supports Building C-331; C-533 supports Building C-333; C-535 supports Building C-335, and; C-537 supports Building C-337. Each switchyard contains hundreds of electrical transformers and other equipment. Within the switchyards are a number of fire valve houses to provide fire control in the event of fires. The electricity from the switchyards is transferred into the processing buildings via overhead metal conduits

Building C-541-A is a one-story oil pump house constructed in 1954. It has a poured concrete foundation, a shed roof and exterior walls of transite panels. On the main (north) façade is an entrance with original double doors of three-light, steel and glass design. The window on this façade is an original, nine-light, steel and glass awning design. On the west façade are two, six-light, steel and glass, awning windows. On the south façade is an entrance with an original, three-light, steel and glass door. This façade also has a nine-light, steel and glass, awning window. The east façade has a nine-light, steel and glass awning window. To the south of the building is a two-tank farm with steel tanks (C-541-E & C) resting on concrete platforms. To the north of the building are two tanks (C-541-B & D) which also rest on concrete platforms. Both tank farms are surrounded by shallow, concrete holding basins.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-176
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-541-B Oil Storage Tank (northwest)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 15000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL	
2	/ continuous	R	/ poured concrete original
2	/ continuous	R	/ poured concrete replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

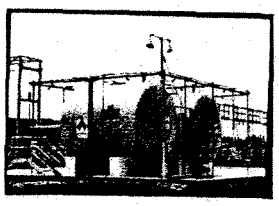
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING	
0	/	0	/ original
0	/	0	/ replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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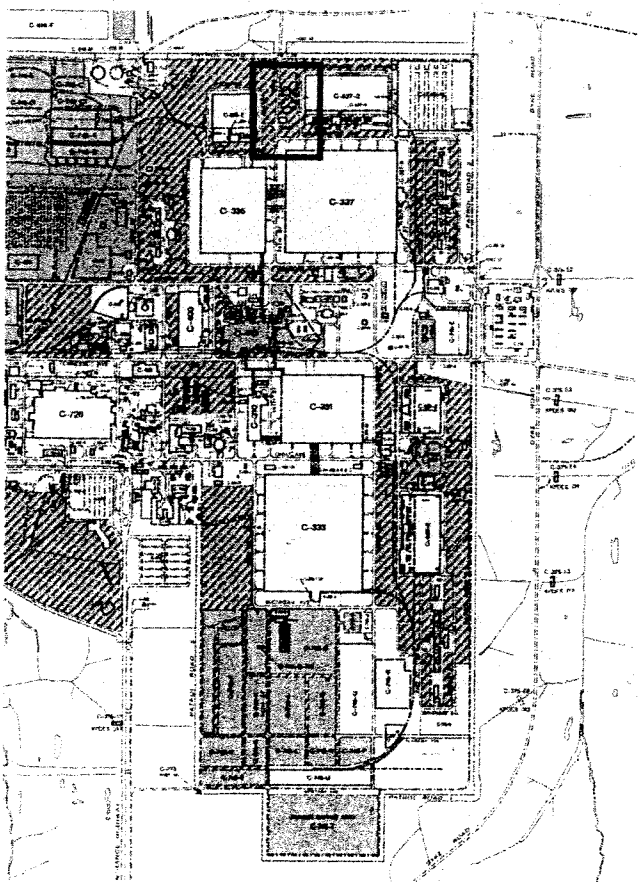
7-12-12

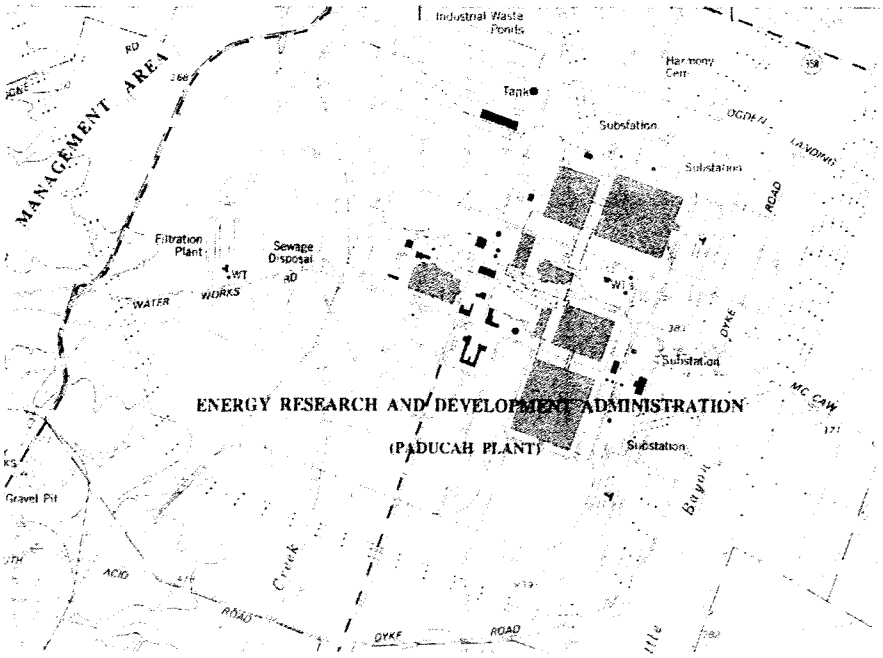
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

Buildings C-541-B, -C, -D, and -E are oil storage tanks and are associated with Oil Pump House C-541-A. These storage tanks are made of steel and rest on concrete foundations. Both tanks are set within below-grade concrete basins. Tanks C-541-B and -D were designed to hold 15,000 gallons of oil, while tanks C-541-C and -E contain 7500 gallons.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-177
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-541-C Oil Storage Tank (southwest)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
____/____
____/____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 7500 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
____/____ second
____/____ third

17. STYLISTIC INFLUENCE:
____/____;____/____ first
____/____;____/____ second
____/____;____/____ third

18. STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

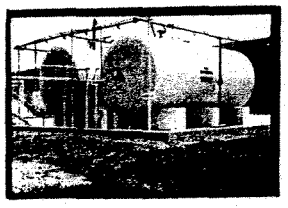
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
____/____	____/____	original
____/____	____/____	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: ____/____/____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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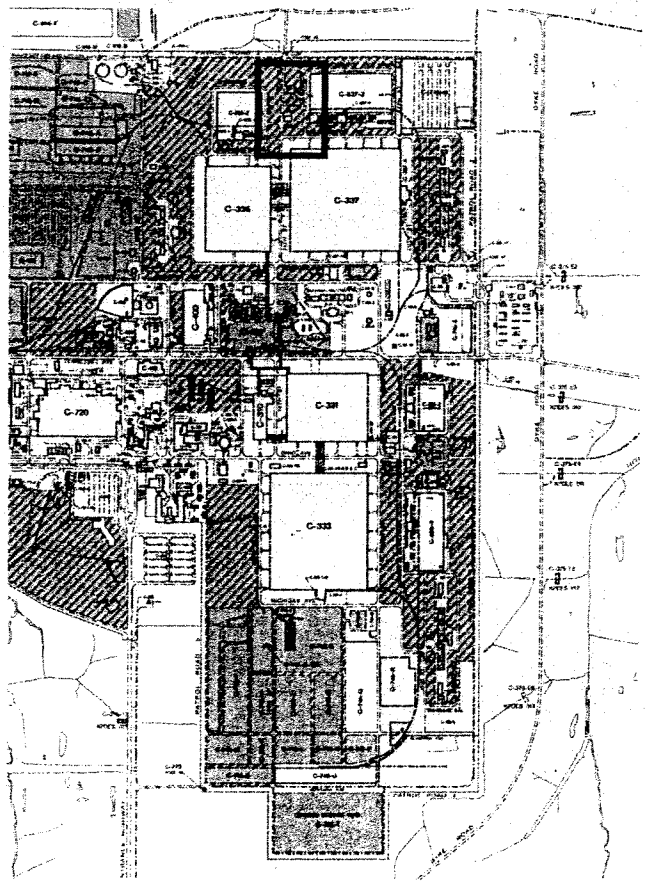
7-12-12

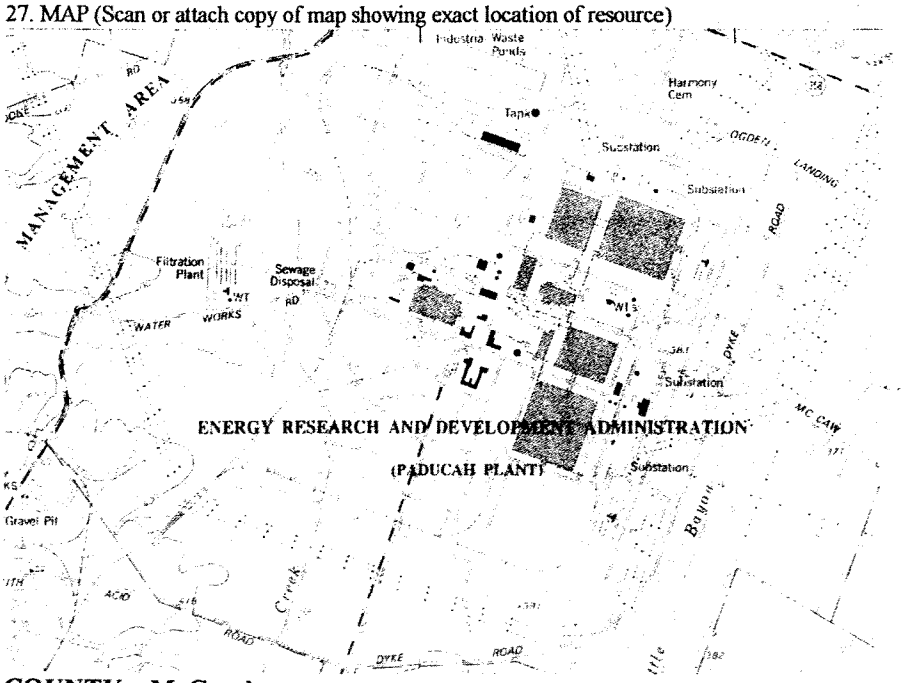
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



COUNTY McCracken

~~OFFICIAL USE ONLY~~ 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

Buildings C-541-B, -C, -D, and -E are oil storage tanks and are associated with Oil Pump House C-541-A. These storage tanks are made of steel and rest on concrete foundations. Both tanks are set within below-grade concrete basins. Tanks C-541-B and -D were designed to hold 15,000 gallons of oil, while tanks C-541-C and -E contain 7500 gallons.

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7-12-K

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-178
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-541-D Oil Storage Tank (northeast)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 15000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel original
Q / steel replacement

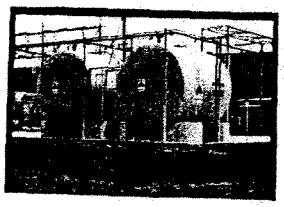
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel	original
Q / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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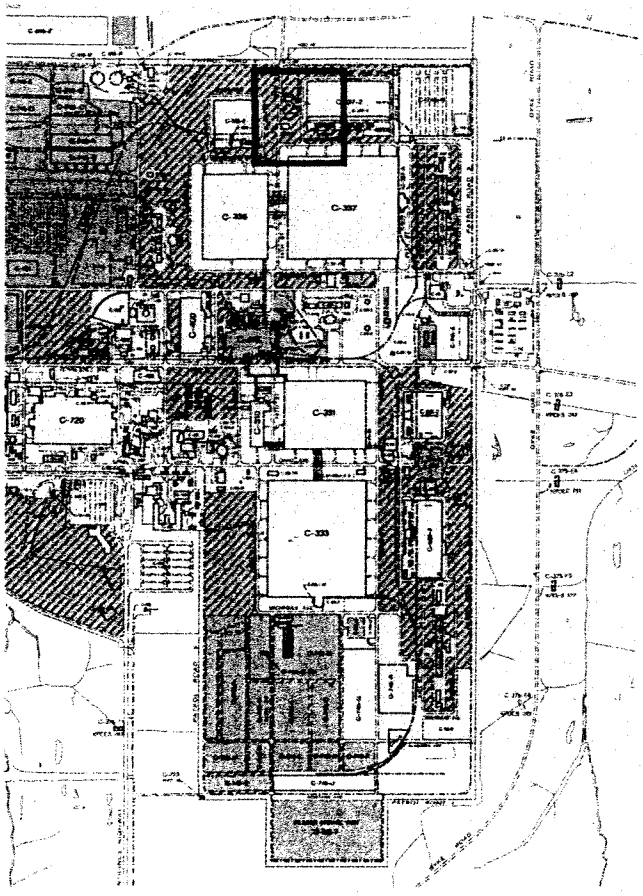
742-12

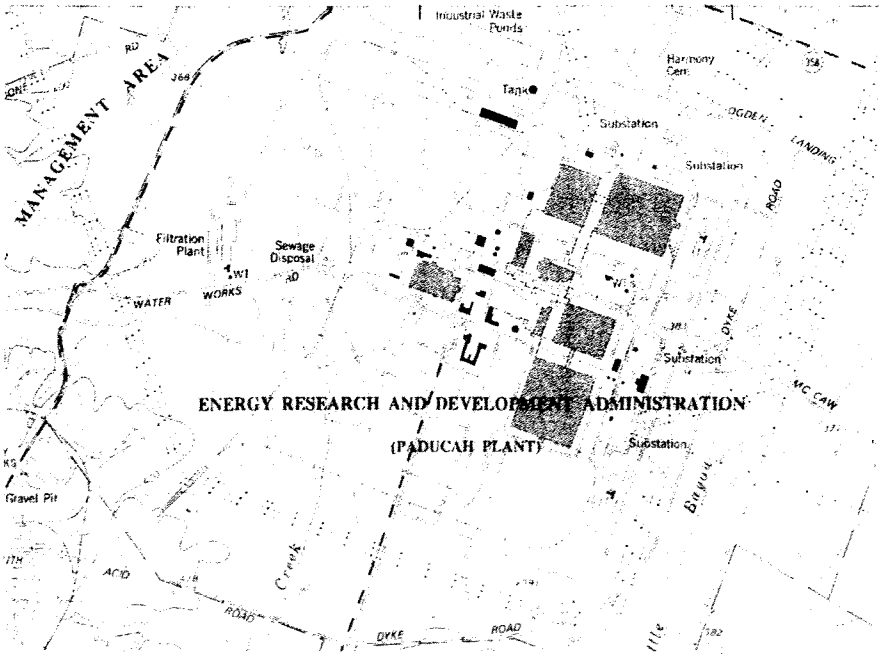
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

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~~OFFICIAL USE ONLY~~

7-12-12

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-180
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-600 Steam Plant

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 47424 ft²
Height 2 story/1story Width _____ Depth _____

16. PLAN:
____ / _____ first
____ / _____ second
____ / _____ third

17. STYLISTIC INFLUENCE:
____ / _____ ; _____ / _____ first
____ / _____ ; _____ / _____ second
____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S/Q/ poured concrete and transite panels original
S/Q/ poured concrete and transite panels replacement

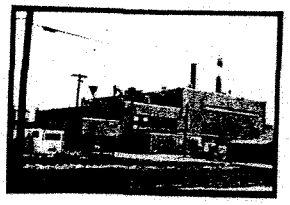
21. ROOF CONFIGURATION/COVERING:

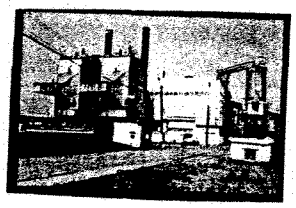
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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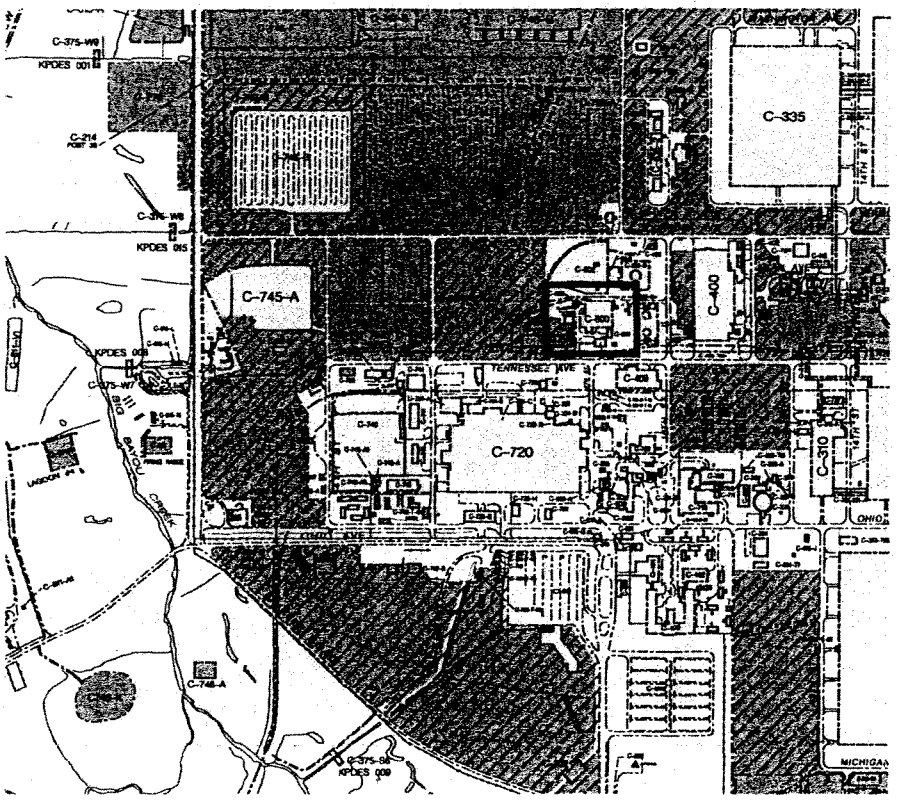
7-12-12

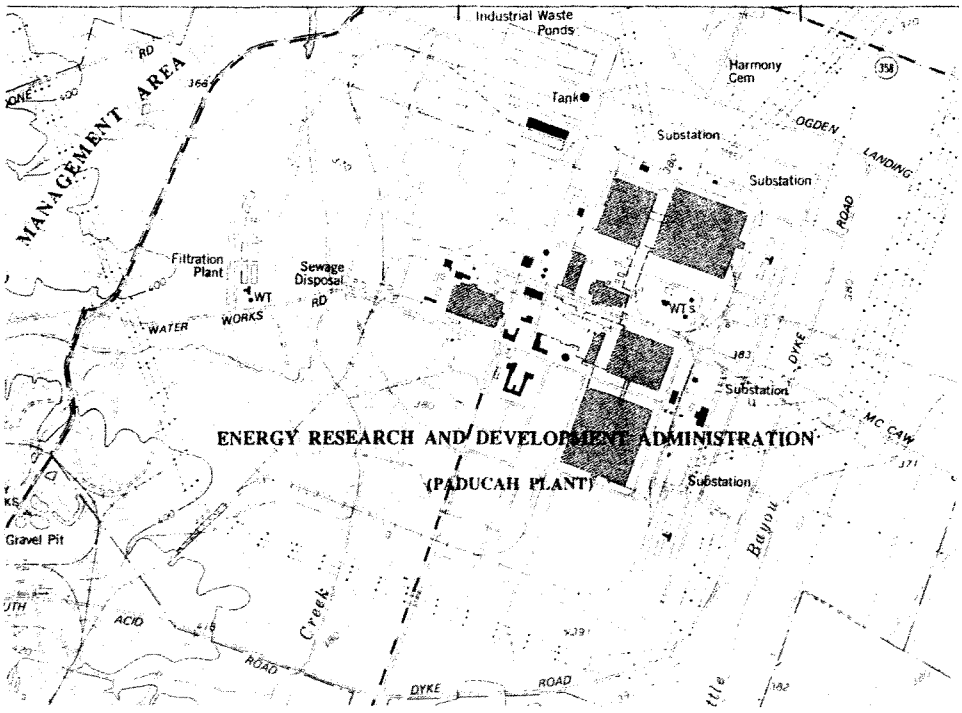
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-600 is a two-story steam plant built in 1952 with several one-story wings. The building has a concrete foundation, a flat roof built-up roof and an exterior of concrete and transite panels. On the south façade is a pedestrian door of original, two-light steel and glass design. Attached to the south façade is a one-story wing. This wing has paired, two-light steel and glass doors on the west façade. Flanking the entrance are original, eight-light steel and glass windows. This wing lacks fenestration on the south façade. The east façade of this wing has paired, two-light glass and wood doors flanked by eight-light steel and glass windows. The south façade also has a large garage bay with a steel overhead track door. The south façade has two rows of horizontal bands of windows. The windows on the first story are in a continuous row except for the garage bay. These windows are eight-light, steel and glass design with central, four-light hinged panels. The second story has a row of similar windows which extend across much of the width of the façade.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-181
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-601 Nitrogen Generator Building Addition

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/ _____
_____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 18326 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___/ _____ first
___/ _____ second
___/ _____ third

17. STYLISTIC INFLUENCE:
___/ _____; _____/ _____ first
___/ _____; _____/ _____ second
___/ _____; _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S/Q/ smooth poured concrete and transite panels original
S/Q/ smooth poured concrete and transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

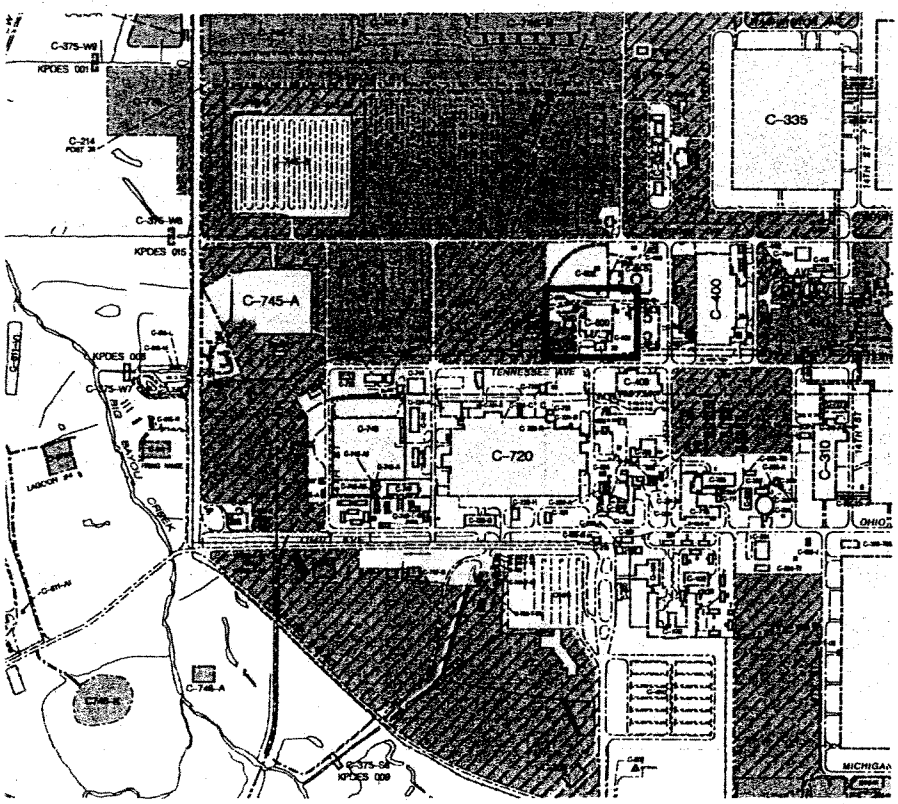
(SEE CONTINUATION PAGE)

OFFICIAL USE ONLY 74
7-12-12

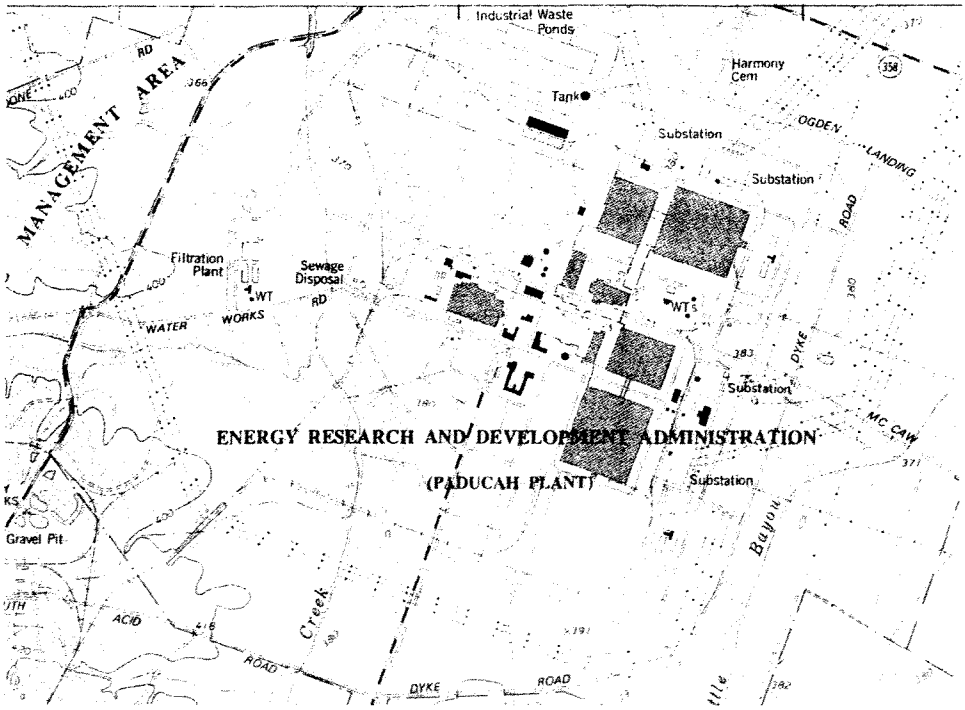
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

On the west façade of Building C-600 is a one-story wing from 1952 designated as **C-601, the Nitrogen Generator Building**. This building lacks fenestration on the south façade. On the west façade are two garage bays with steel overhead track doors. On the west façade of the main building (C-600) is a garage bay entrance with an overhead track steel door. Windows on this façade are eight-light steel and glass design grouped together in three rows with each row containing twelve windows. A small concrete block wing on this façade has a single-light steel and glass door and louvered vent. On the east façade of the building is a pedestrian entrance with paired, single-light steel and glass doors. In the upper level of this façade is a row of four-light steel and glass awning windows. Adjacent to this façade are two, large, two-story filters or bag houses which are of steel construction and rest on concrete pads.

The north façade of this building has a garage bay with an overhead track steel door. Windows are eight-light steel and glass design. On the north façade are two conveyors which supply coal to the building. This façade also has a detached hollow core tile holding tank and chute which is sited over a spur of the railroad line.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-182
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-601-A Steam Plant Fuel-Storage Tank (center)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 420000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel original
Q / steel replacement

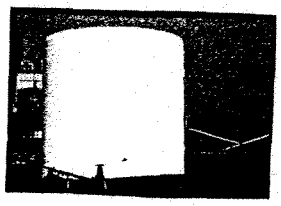
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel	original
Q / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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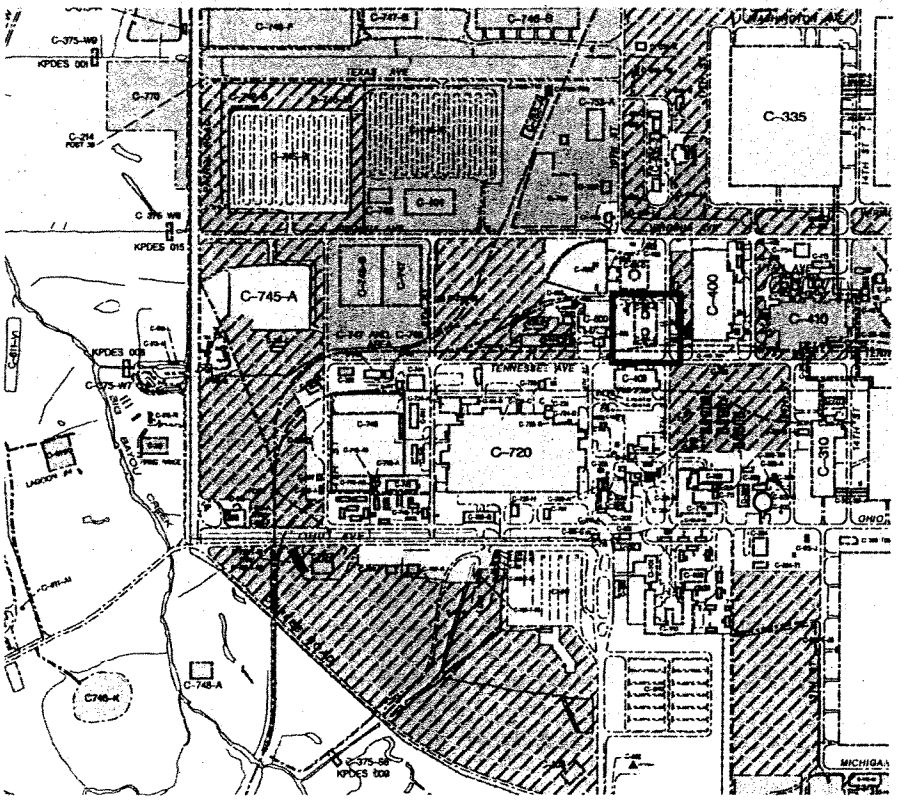
7-12-12

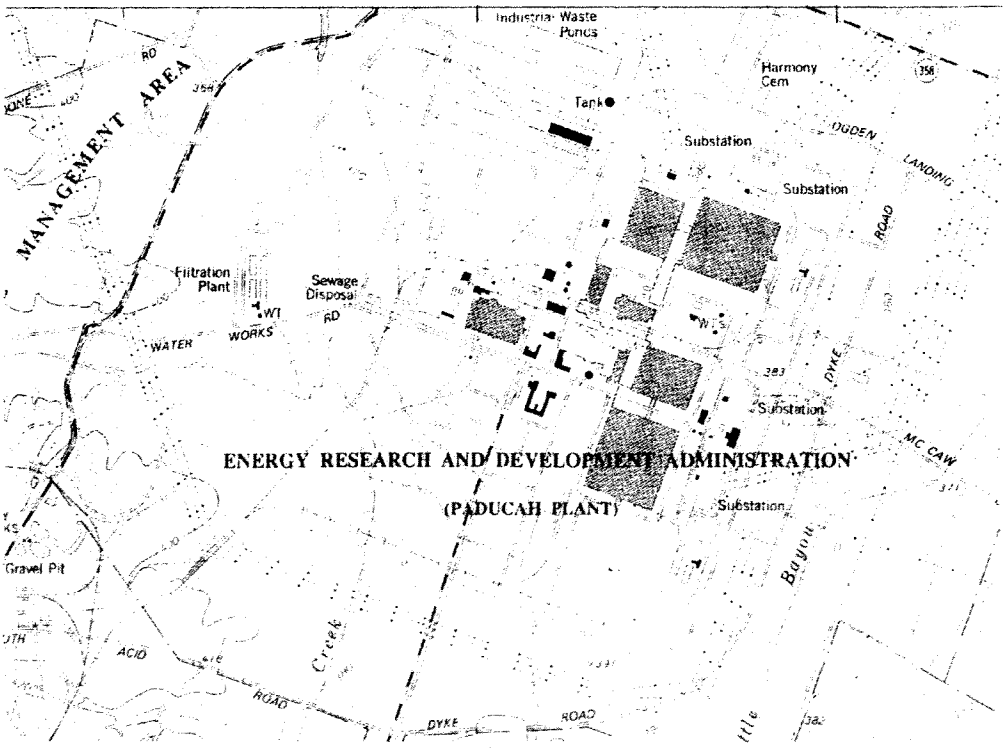
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

To the east of Building C-600 are two steam plant fuel storage tanks **(C601- A & B).** These tanks are circular in design with flat roof and exterior wall steel stairs. To the northeast of the building is **C601-D**, a fuel oil storage tank. The tank is round with a flat roof and exterior wall steel stair.

~~OFFICIAL USE ONLY~~ T4
7/2/12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-183
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-601-B Steam Plant Fuel-Storage Tank (south)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 420000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel original
Q / steel replacement

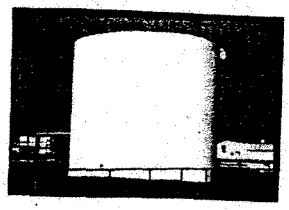
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel	original
Q / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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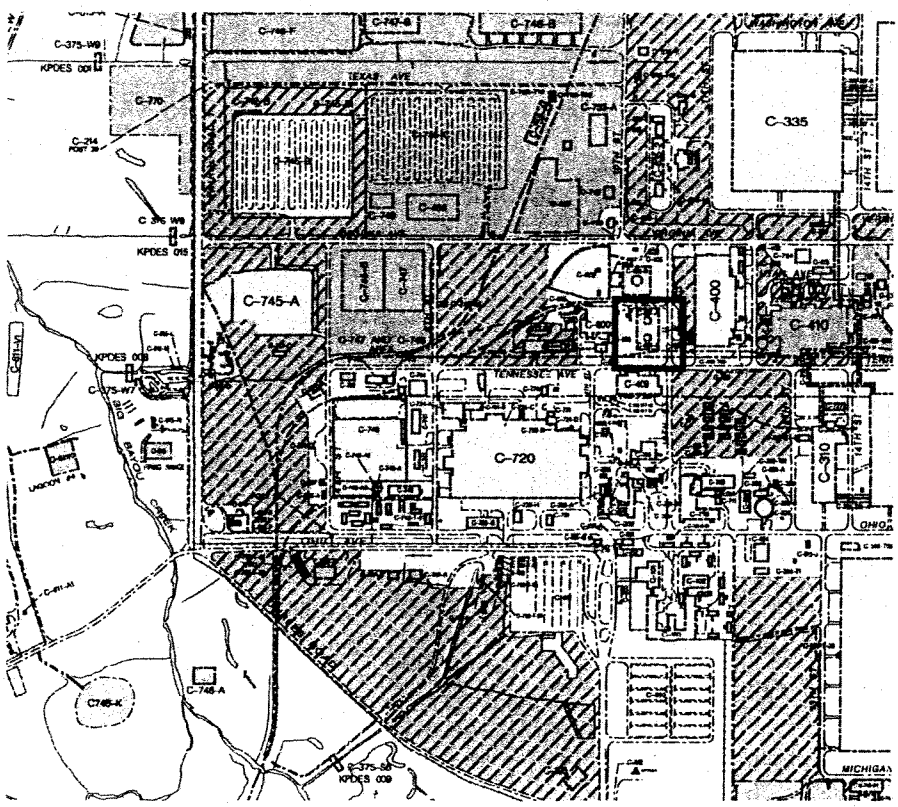
7-12-12

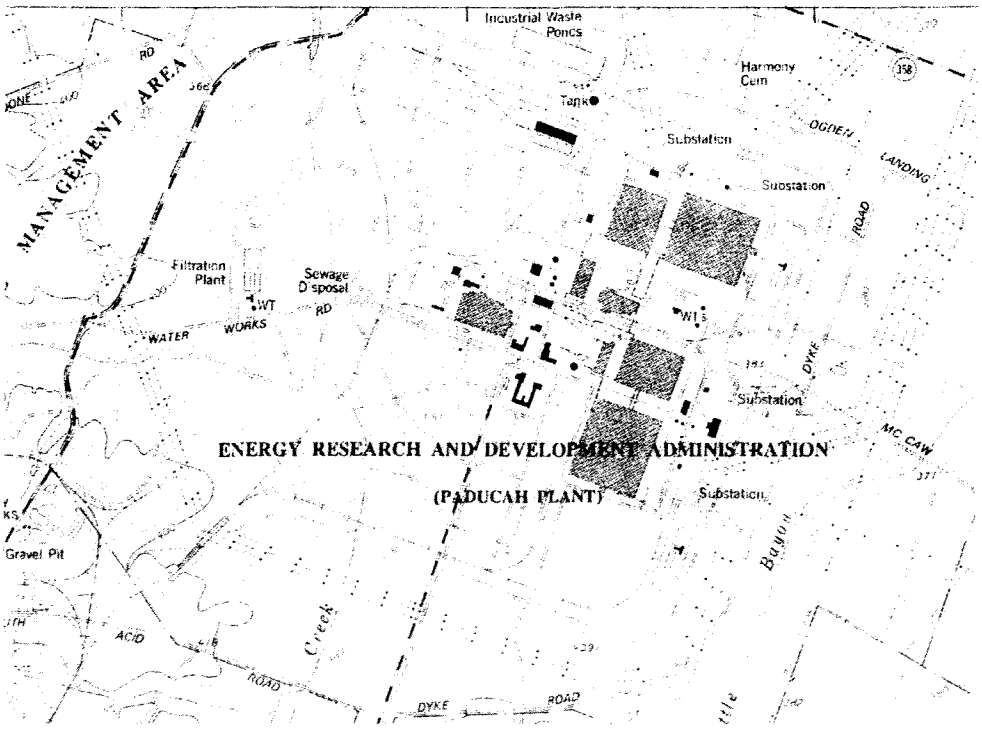
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TA 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

To the east of Building C-600 are two steam plant fuel storage tanks **(C601- A & B).** These tanks are circular in design with flat roof and exterior wall steel stairs. To the northeast of the building is **C601-D**, a fuel oil storage tank. The tank is round with a flat roof and exterior wall steel stair.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-184
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-601-C Steam Plant Fuel Oil Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and transite original
X / X / steel and transite subsequent

15. DIMENSIONS: 148 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL	
2	/ continuous	R	/ poured concrete original
2	/ continuous	R	/ poured concrete replacement

20. PRIMARY WALL MATERIAL:
Q / transite original
Q / transite replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING	
P	/ shed	8	/ transite panels original
P	/ shed	8	/ transite panels replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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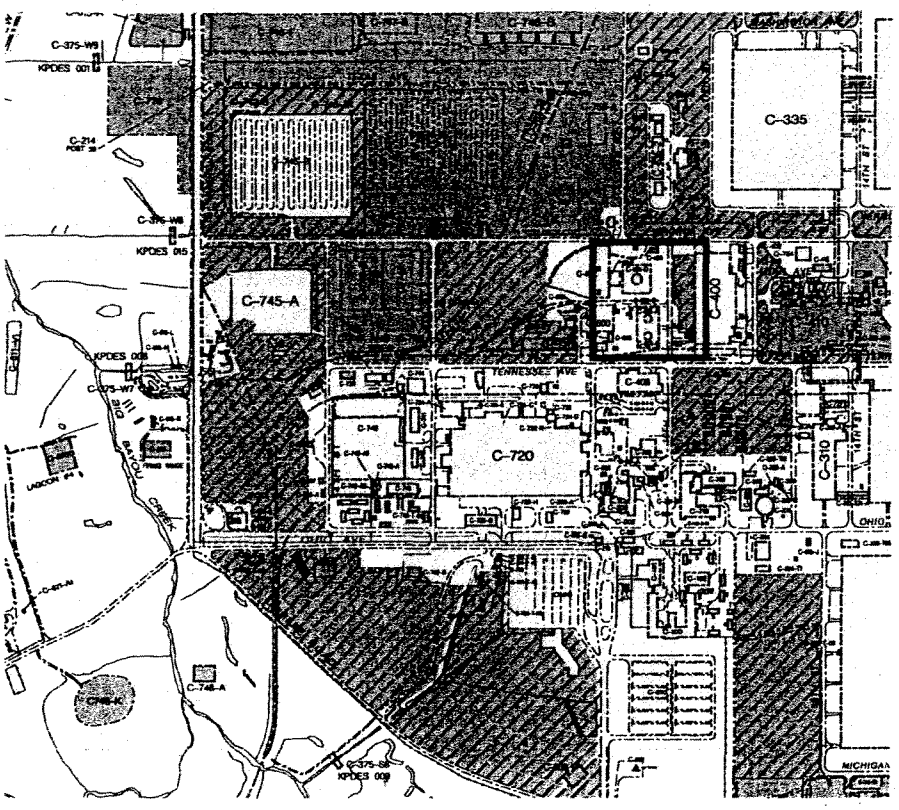
7-12-12

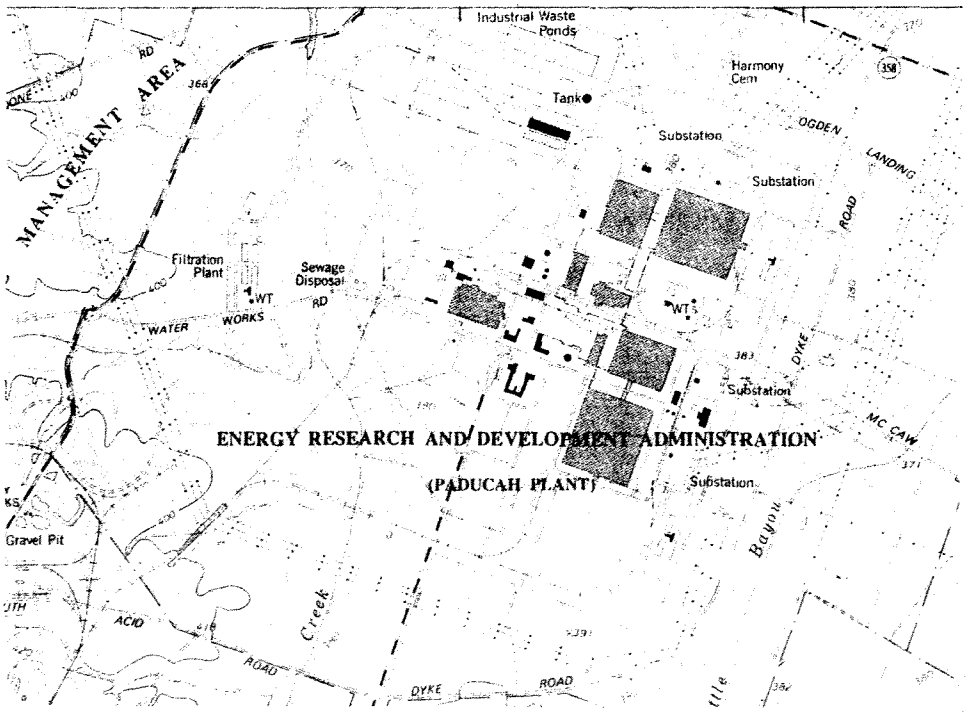
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building 601-C is a small pump house of steel and transite construction built in 1952. This building has a concrete foundation, a shed roof of transite panels and exterior walls of transite. On the east façade is an original four-light door of steel and transite panels. This building has no other fenestration.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-185
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-601-D Fuel Oil Storage Tank (north)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 4 / 1974 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 1000000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____; _____ / _____ first
___ / _____; _____ / _____ second
___ / _____; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel original
Q / steel replacement

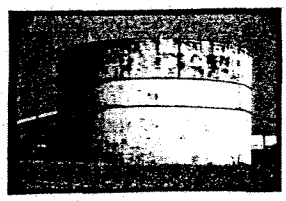
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel	original
Q / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

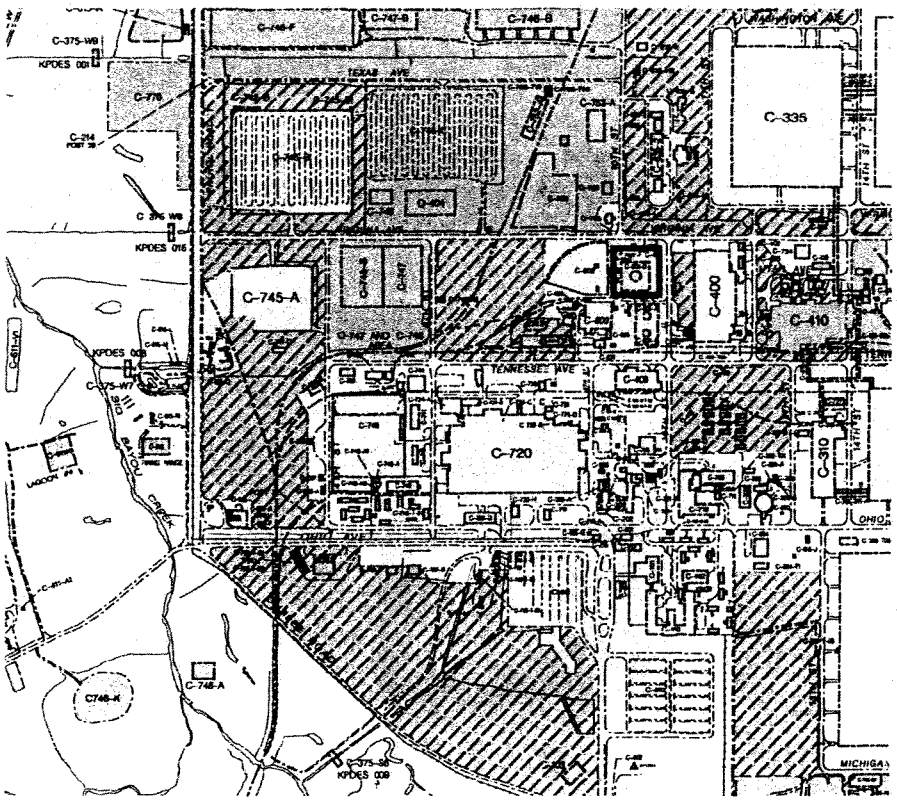
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ T4
7-12-L

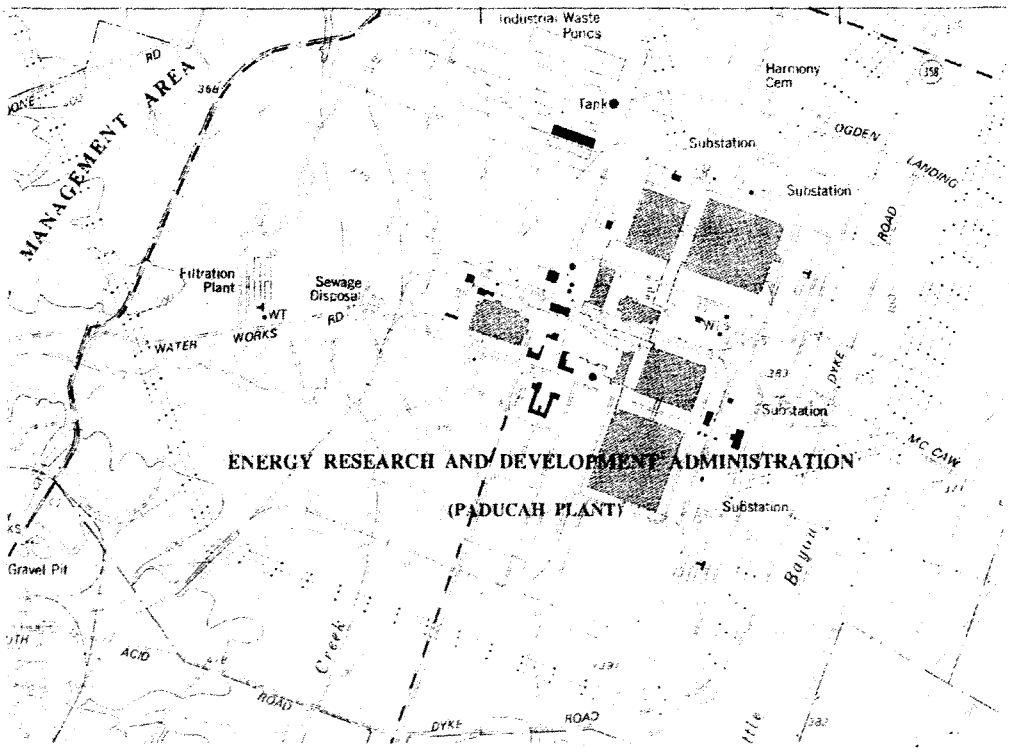
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

To the east of Building C-600 are two steam plant fuel storage tanks **(C601- A & B).** These tanks are circular in design with flat roof and exterior wall steel stairs. To the northeast of the building is **C601-D**, a fuel oil storage tank. The tank is round with a flat roof and exterior wall steel stair.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-186-188
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant
Building No. C-603-E Nitrogen Storage Tank (east)
Building No. C-603-F Nitrogen Storage Tank (center)
Building No. C-603-G Nitrogen Storage Tank (west)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 4-5 / 1974-75 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 11000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	8 / steel	original
O / flat	8 / steel	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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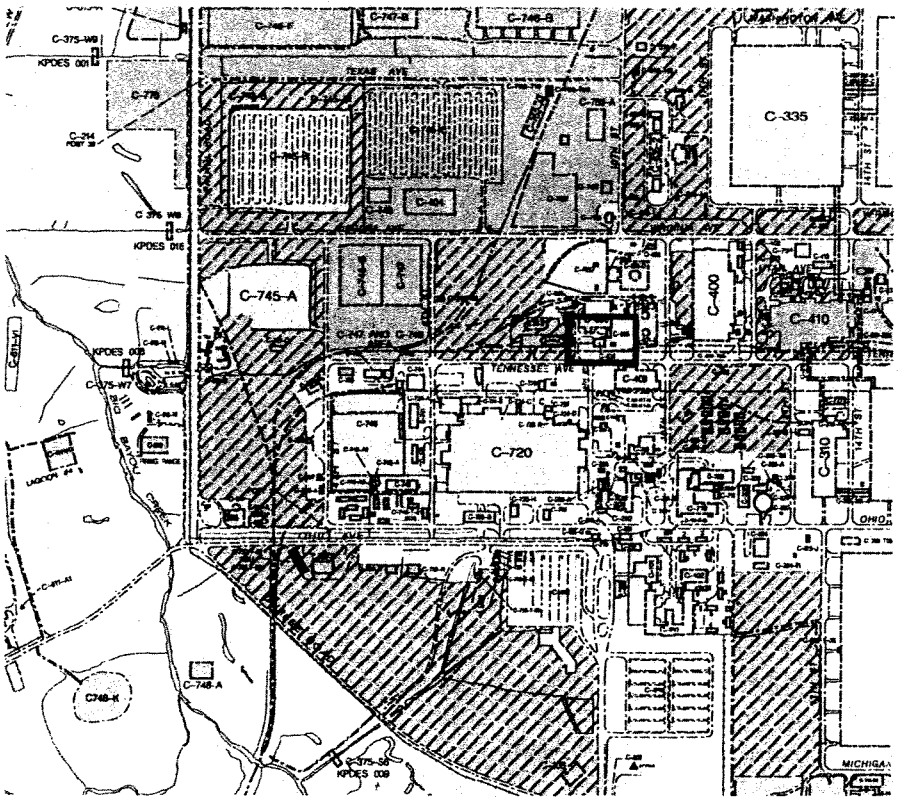
7-12-12

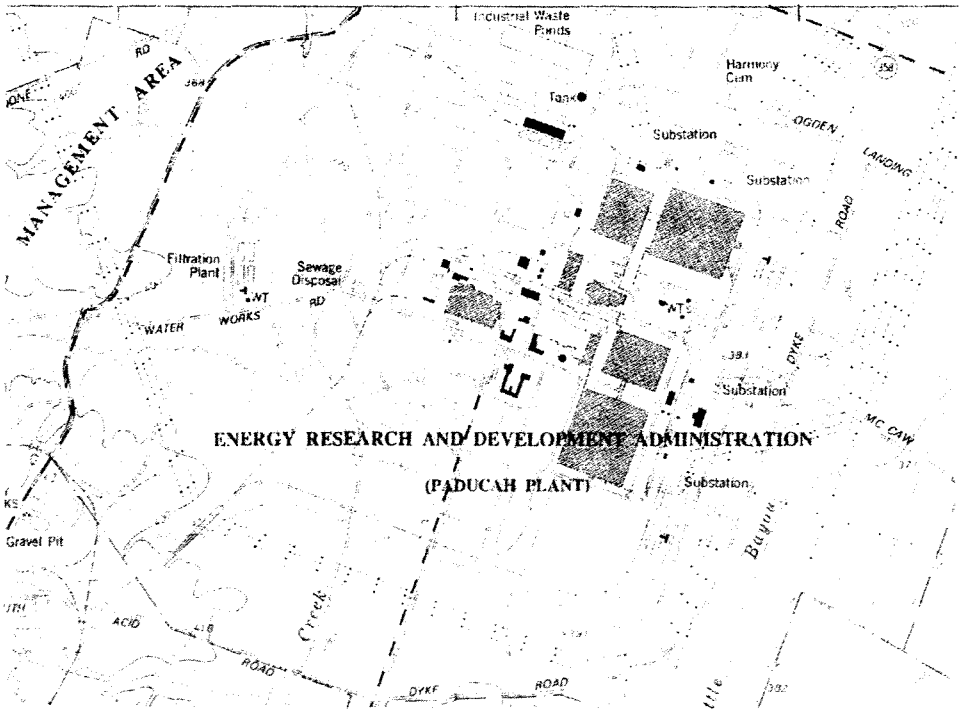
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

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Storage Tanks are scattered throughout the PGDP to hold various chemicals such as nitric acid (C-407), trichloroethylene (C-406), and nitrogen (C-603). Two large tanks containing fuel oil are also located next to the facility's steam plant (Building 600).

Located adjacent to Building C-600, the plant's steam plant, these three storage tanks were designed to hold 11,000 gallons of nitrogen. All three tanks are of steel construction and are identical in plan.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-189
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant
Building No. C-604 Utilities Maintenance Building &
C-604-A Utilities Storage Building.

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 9 / 1979 documented

13. DATE OF MAJOR MODIFICATIONS:
2 / concrete block wing addition
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 2400 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL	
C	/ continuous	R	/poured concrete original
C	/ continuous	R	/poured concrete replacement

20. PRIMARY WALL MATERIAL:
O / metal panels original
O / metal panels replacement

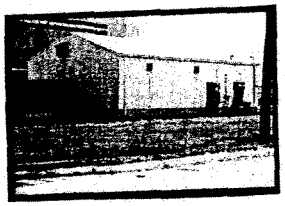
21. ROOF CONFIGURATION/COVERING:

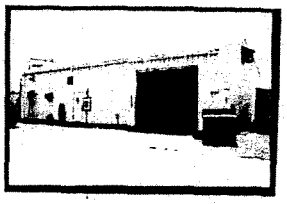
CONFIGURATION		COVERING	
A	/ side	7	/ metal original
A	/ side	7	/ metal replacement

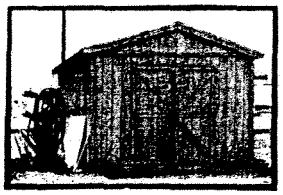
22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.







COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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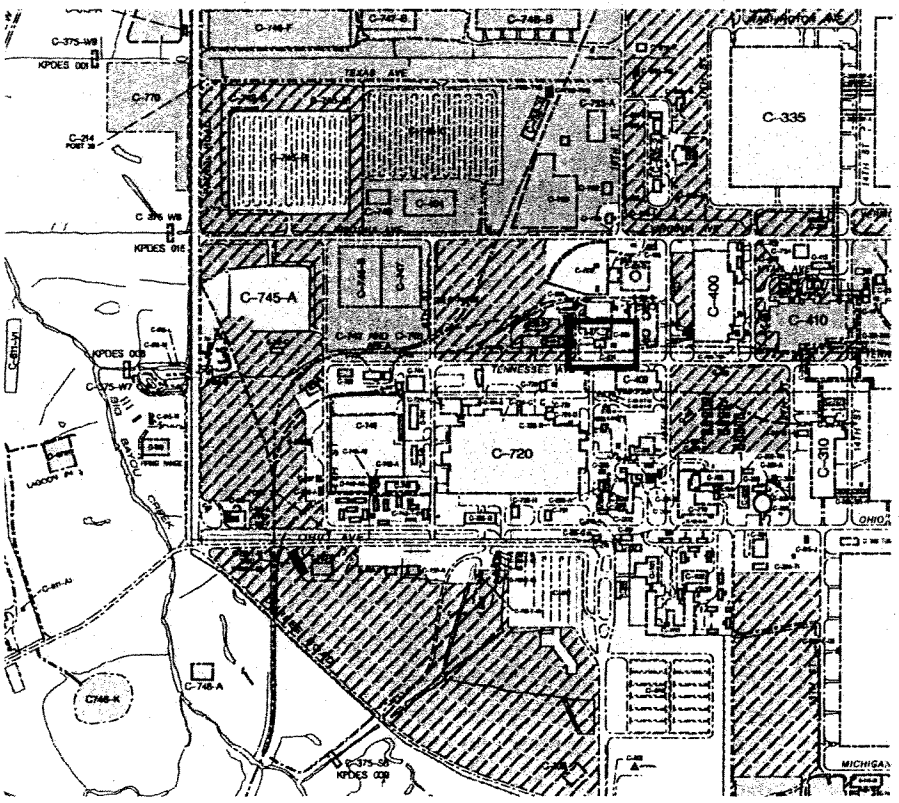
7-12-12

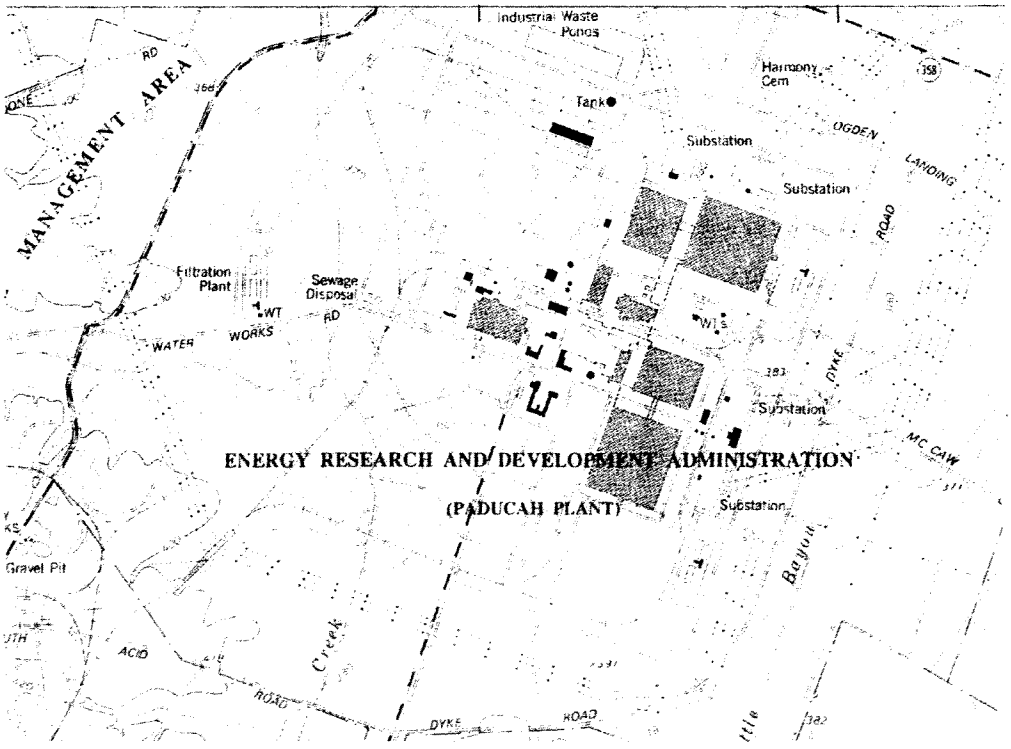
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-604 is a one-story, prefabricated metal building erected in 1979. The building is located to the south of the steam plant and is used as a maintenance building. It has a concrete foundation a gable roof, and walls of metal panels. On the north façade is a large garage bay with an overhead-track door. Pedestrian entrances have steel and glass doors. Windows are of fixed aluminum design.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-190
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-605 Substation Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site.

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 7 / 9 / 1979 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 1200 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____ / _____ first
____ / _____ second
____ / _____ third

17. STYLISTIC INFLUENCE:
____ / _____ ; _____ / _____ first
____ / _____ ; _____ / _____ second
____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / crimped steel panels original
Q / crimped steel panels replacement

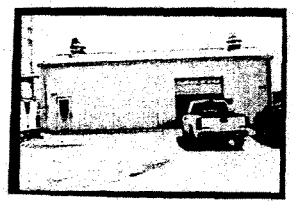
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / shed	7 / standing metal seam	original
A / shed	7 / standing metal seam	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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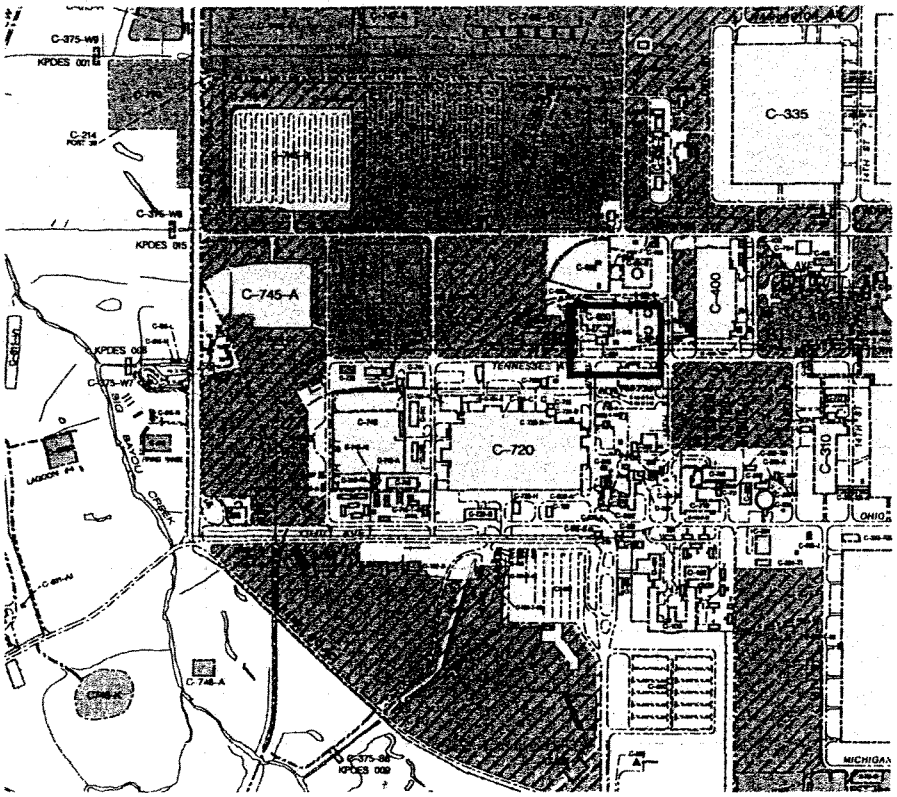
7-12-12

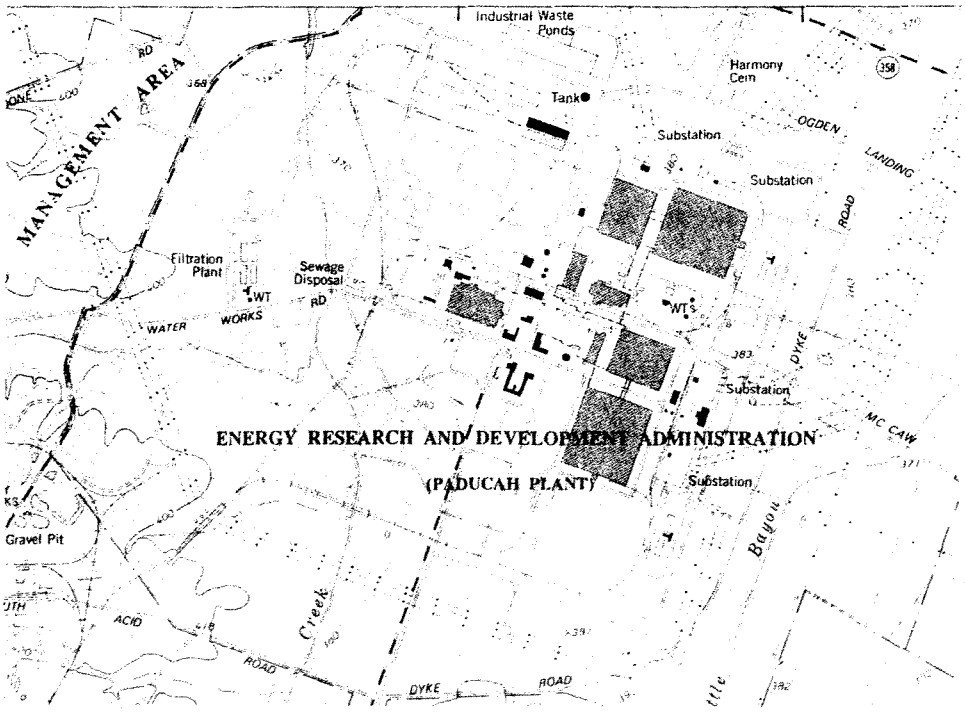
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TR 2-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-605 is a one-story, pre-fabricated metal building erected in 1979. The building has a concrete foundation, a gable roof of crimped metal panels and an exterior of crimped steel panels. On the west façade is a pedestrian entrance with a single-light, steel and glass door. A garage bay on this façade has an overhead track steel door. On the south facade is a single-light, glass and wood door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-191
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-606 Coal Crusher Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 0 / 1980 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 1470 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / paneled wood walls original
Q / paneled wood walls replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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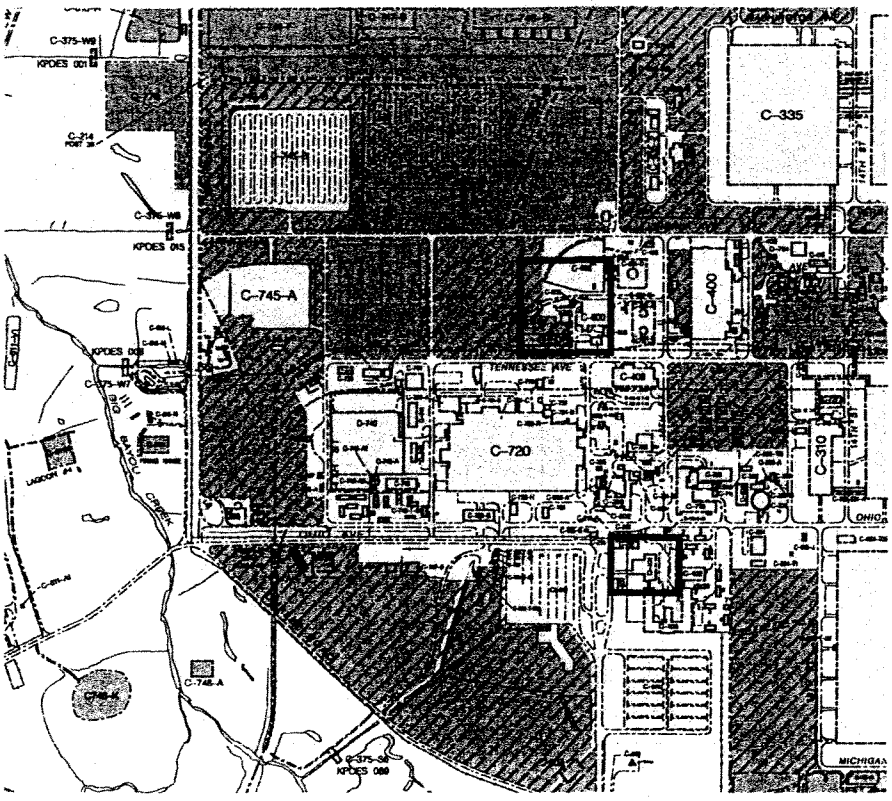
7-12-12

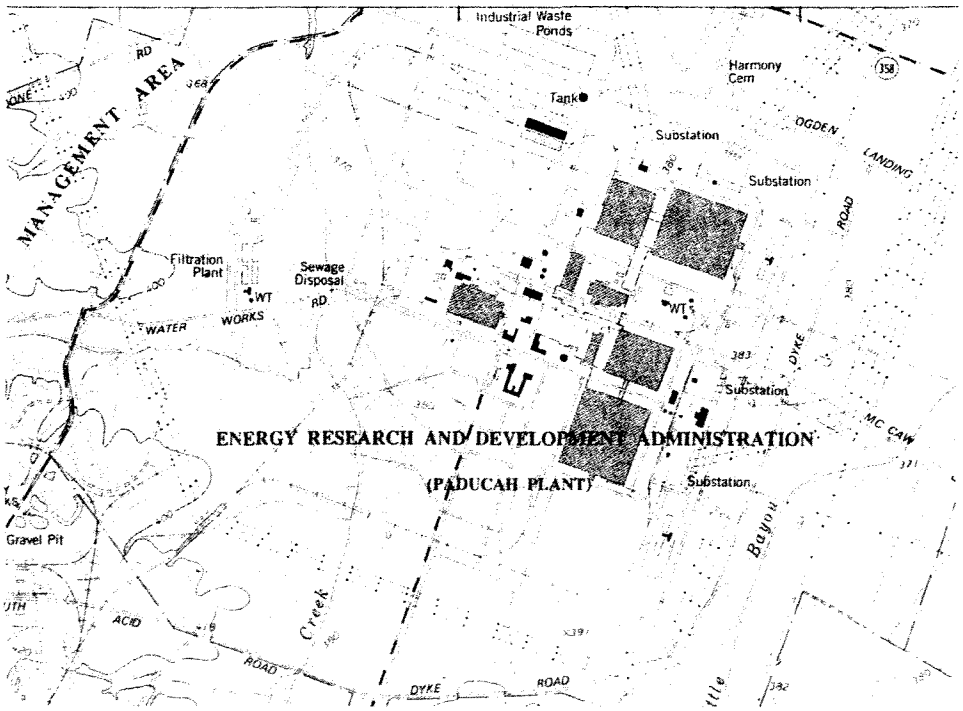
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-606 is a two-story metal coal crusher erected in 1980. This building has a poured concrete foundation and paneled wood walls. On the north façade on the first floor are paired, steel and glass doors which lead to a steel platform and conveyor.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-192
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-607 Emergency air Compressor Generator Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 4 / 1984 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/ _____
_____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 2000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____ ; _____/ _____ first
____/ _____ ; _____/ _____ second
____/ _____ ; _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

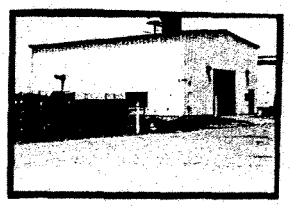
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	8 / steel panels	original
A / side gable	8 / steel panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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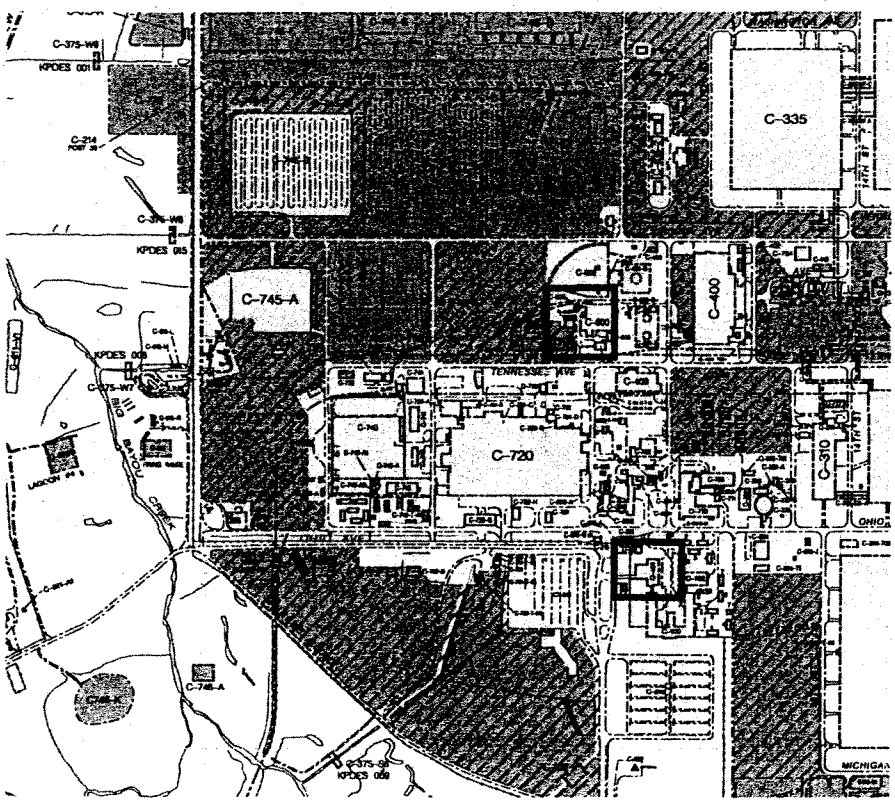
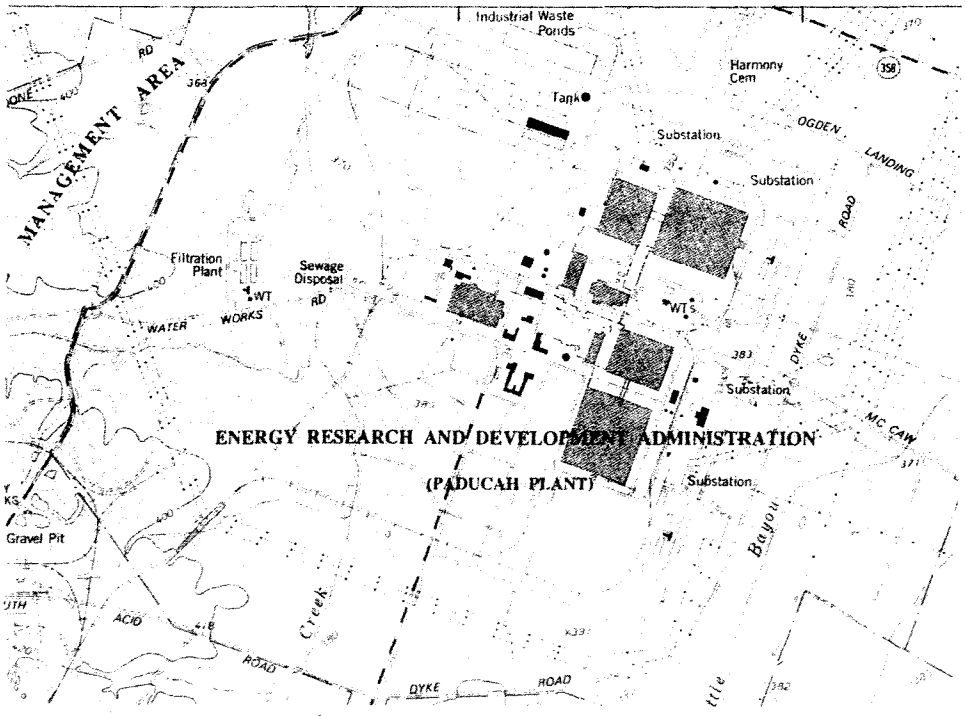
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-K

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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C-607 is a one-story, pre-fabricated metal building. The building has a poured concrete foundation, a gable roof of steel panels and exterior walls of steel panels On the main (E) façade is a garage bay entrance with an overhead steel track door. A pedestrian entrance on this façade has a single-light, steel and glass door. The west façade of the building has a pedestrian entrance with a steel and glass door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-193
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-611 Water Treatment Plant

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water treatment plant

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water treatment plant

12. CONSTRUCTION DATE: 3 / _____ estimated
1 / 9 / 4 / 2 / 1942 documented

13. DATE OF MAJOR MODIFICATIONS:
1 / aluminum doors and windows replace original wood
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
W / 3 / frame original
W / 3 / frame subsequent

15. DIMENSIONS: 15 acres
Height _____ Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____; _____ / _____ first
___ / _____; _____ / _____ second
___ / _____; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Y / vinyl siding original
Y / vinyl siding replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	5 / asphalt shingle	original
A / side gable	5 / asphalt shingle	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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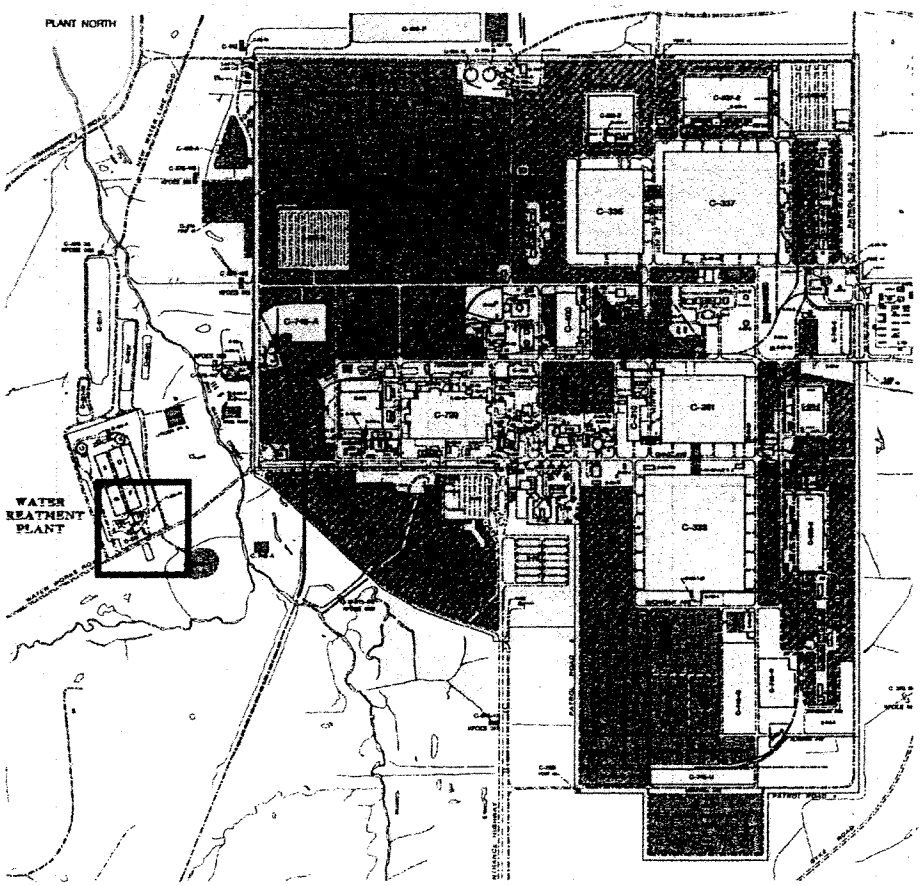
7-12-12

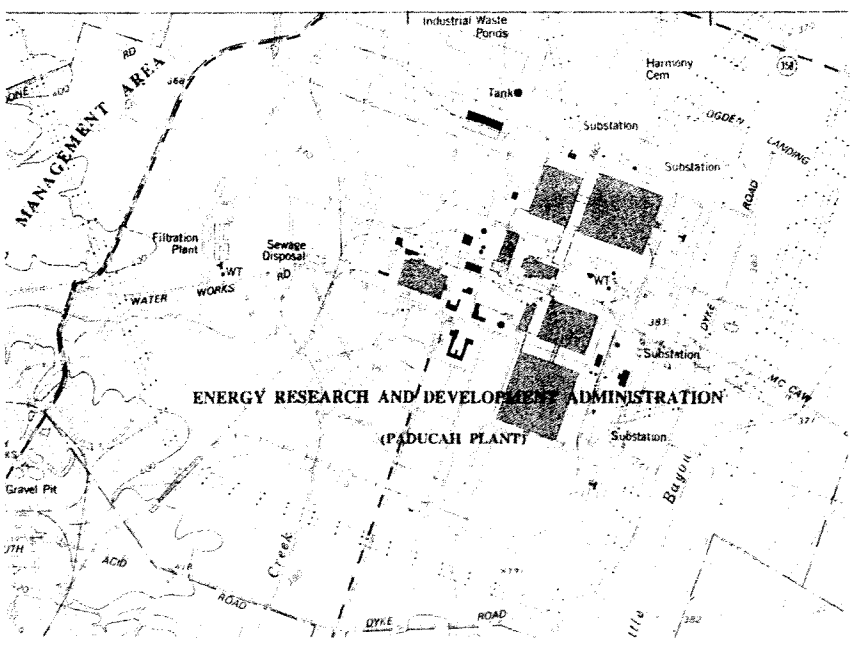
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

Building C-611 refers to the facility's water treatment plant. This plant was originally built in 1942 to serve as the water treatment facility for the KOW. When PGDP was constructed in the early 1950s, the water treatment plant was retained and upgraded. The treatment plant consists of 15 acres and the main building (C-611-A), four reinforced concrete settling basins, two steel tanks for water softening, various small filter buildings, and pump stations. To the north of the main plant are sludge lagoons. The main building is of frame construction with a concrete foundation, gable roof of asphalt shingles, and exterior of vinyl siding. The building's original doors and windows were replaced ca. 1990 with fixed aluminum windows and metal doors.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-194
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-611-M North Concrete Sanitary Water Tower

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

12. CONSTRUCTION DATE: 3 / _____ estimated
1 / 9 / 4 / 2 / 1942 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 250000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
3 / posts/pads	D / steel and concrete	original
3 / posts/pads	D / steel and concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

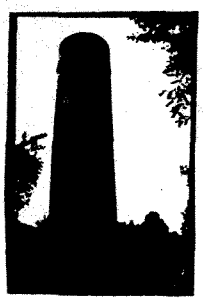
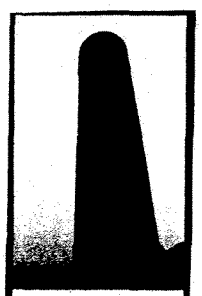
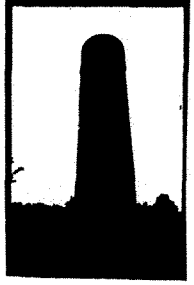
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / n/a	O / n/a	original
O / n/a	O / n/a	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

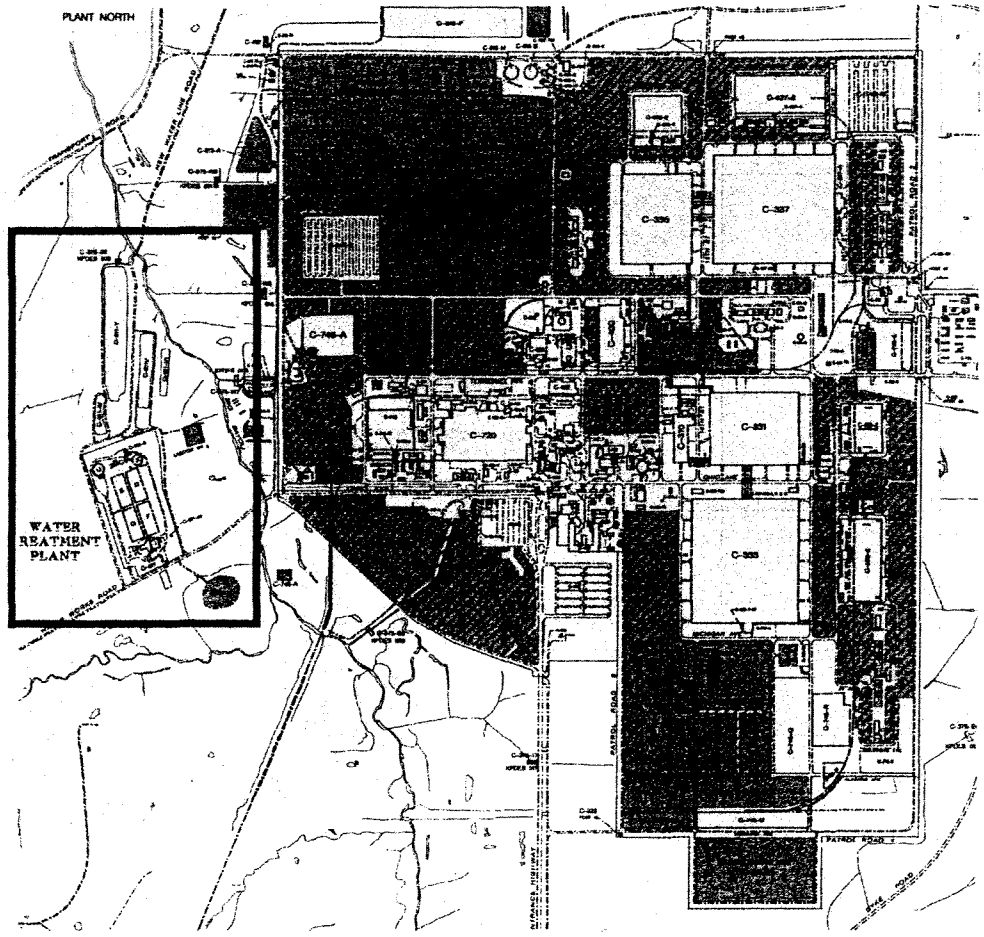
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH 7-12-16

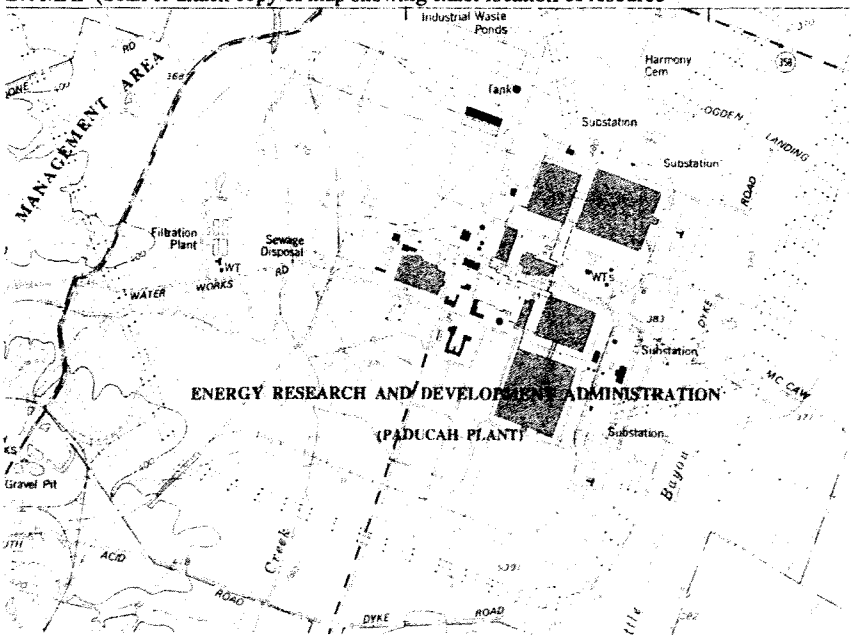
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource



~~OFFICIAL USE ONLY~~ TA 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

Built in 1942, the North Concrete Sanitary Tank was originally built as a water tank for the KOW. Following the closing of the plant in 1945, new water lines were built to connect the tank with PGDP. Since 1952, the tank has been used to hold and supply water to PGDP. The structure is circular in design, constructed of reinforced concrete, and has a capacity of 250,000 gallons. No ancillary buildings or structures are associated with this water tank.

~~OFFICIAL USE ONLY~~ TH 7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-195
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-611-N South Concrete Sanitary Water Tower

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

12. CONSTRUCTION DATE: 3 / _____ estimated
1 / 9 / 4 / 2 / 1942 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 250000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
O / cylindrical first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
3 / posts/pads	D / steel and concrete	original
3 / posts/pads	D / steel and concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

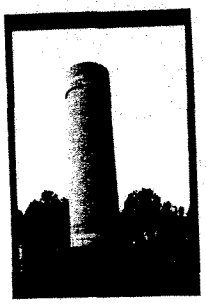
21. ROOF CONFIGURATION/COVERING:

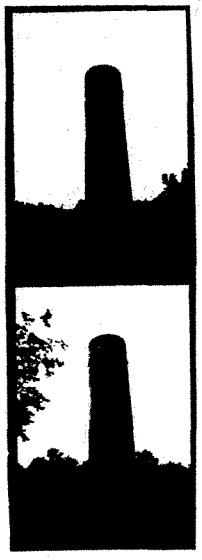
CONFIGURATION	COVERING	
O / n/a	O / n/a	original
O / n/a	O / n/a	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

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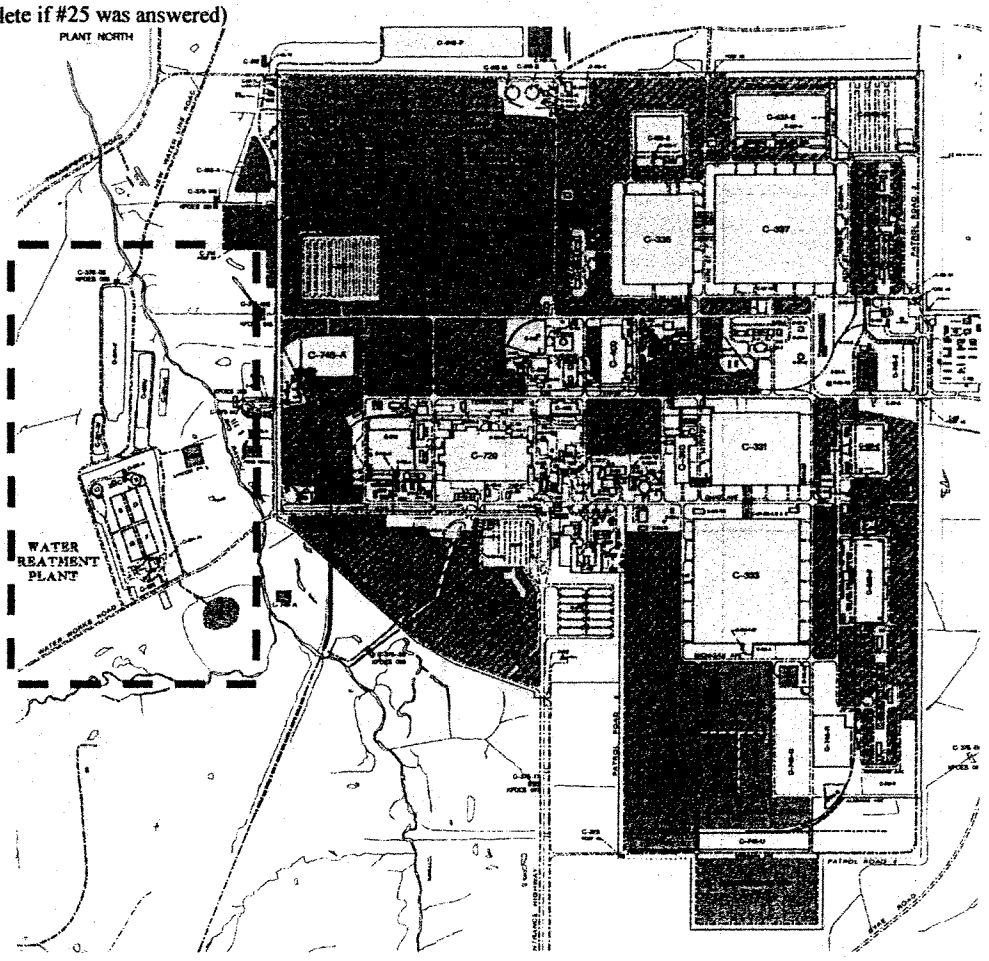
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TA
7-12-12

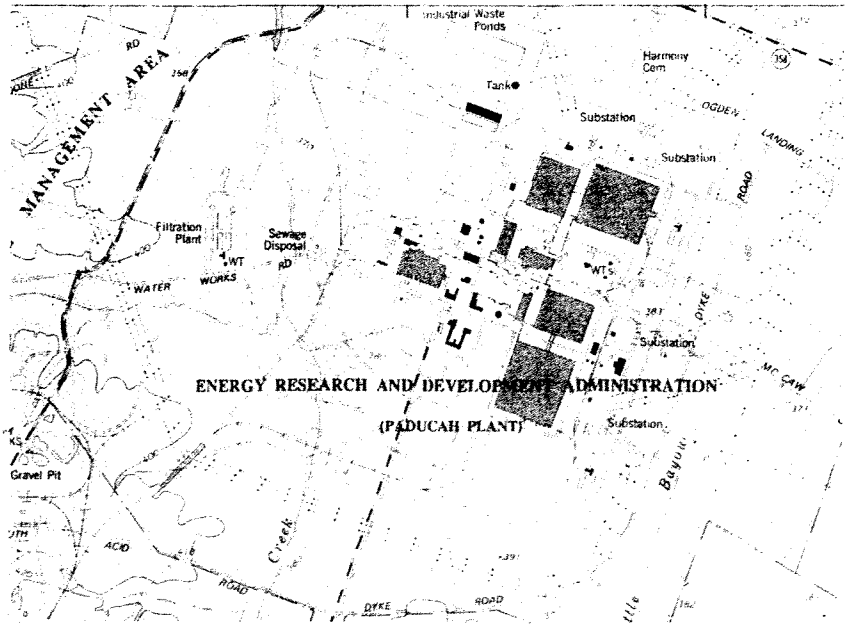
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

TH
7-12-12

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TH
7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-196
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-611-O Sanitary Water Treatment Storage Tank

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 250000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
3 / posts/pads	D / steel and concrete	original
3 / posts/pads	D / steel and concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / n/a	O / n/a	original
O / n/a	O / n/a	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

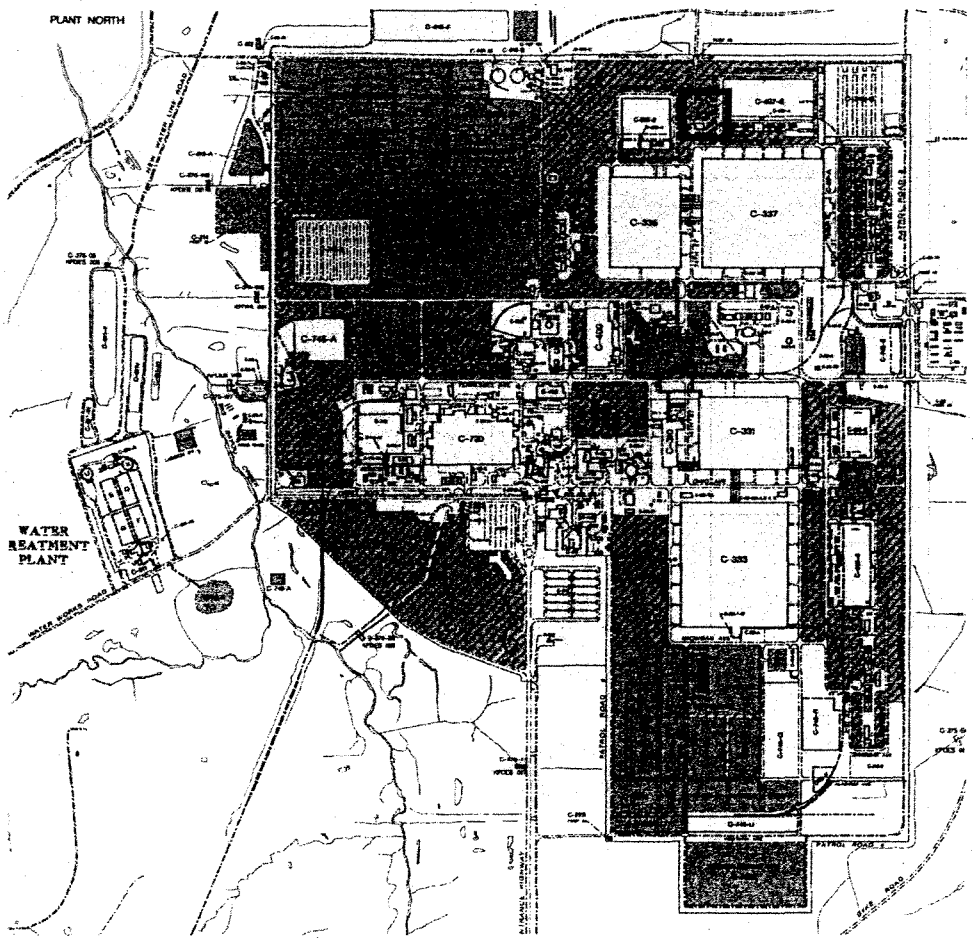
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TL
7-12-2

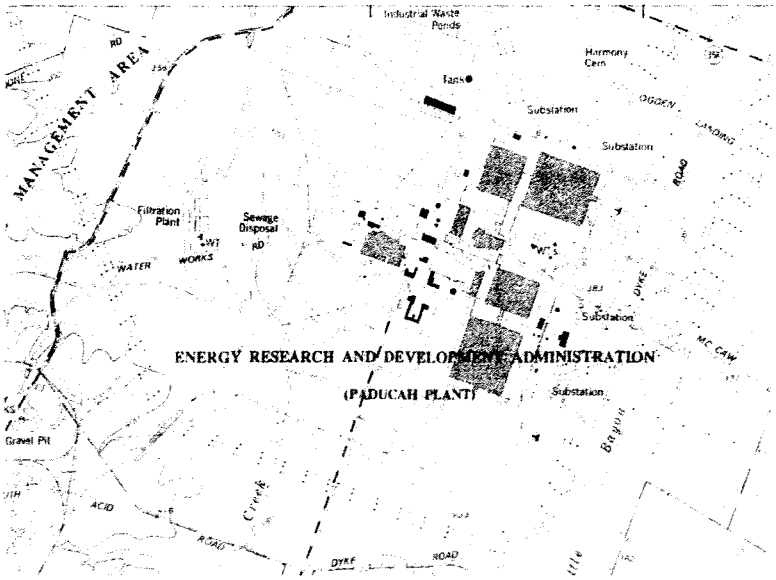
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TK
7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Building C-611-O is a 250,000-gallon, sanitary water storage tank erected in 1953. It is of steel construction and is round with four steel support posts. The steel support posts rest on concrete pads. The water tank has a circular metal railing extending its circumference. This has a central water pipe from the tank to below grade.

~~OFFICIAL USE ONLY~~ 14
7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-197
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-611-R Water Tank

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site-water storage tank

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 300000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
_____ / first
_____ / second
_____ / third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
3 / posts/pads	D / steel and concrete	original
3 / posts/pads	D / steel and concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

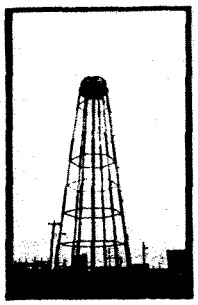
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / n/a	O / n/a	original
O / n/a	O / n/a	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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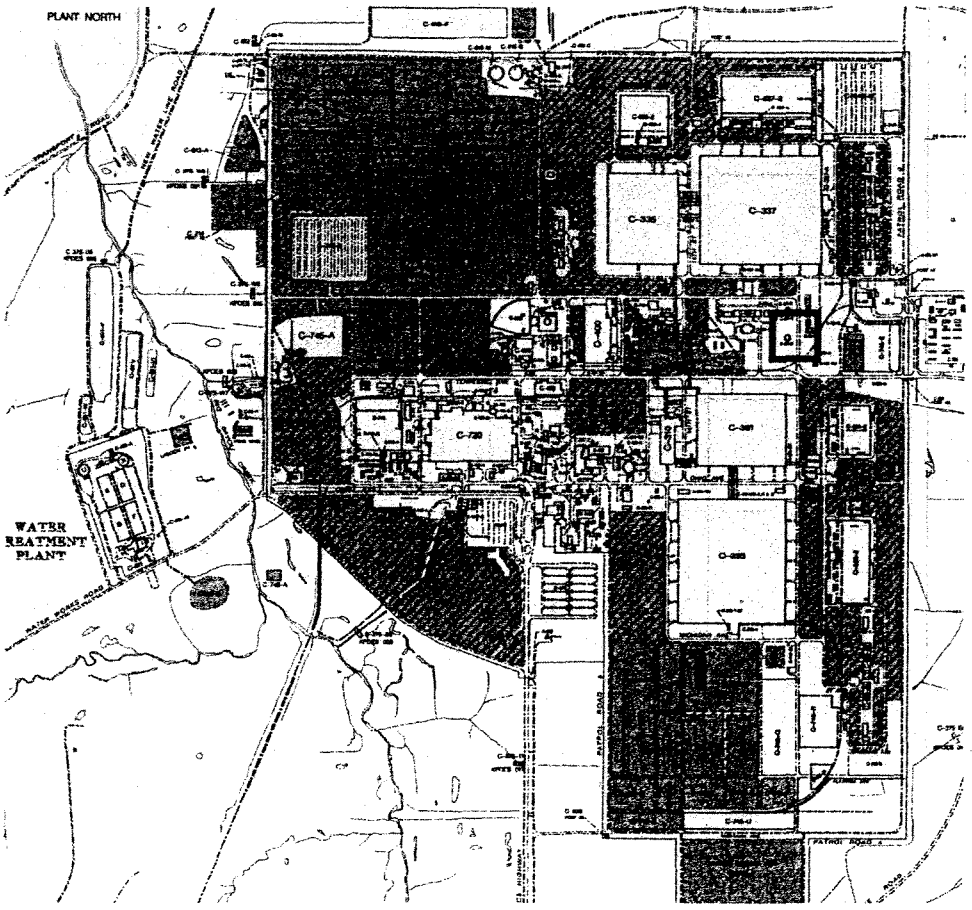
7-12-12

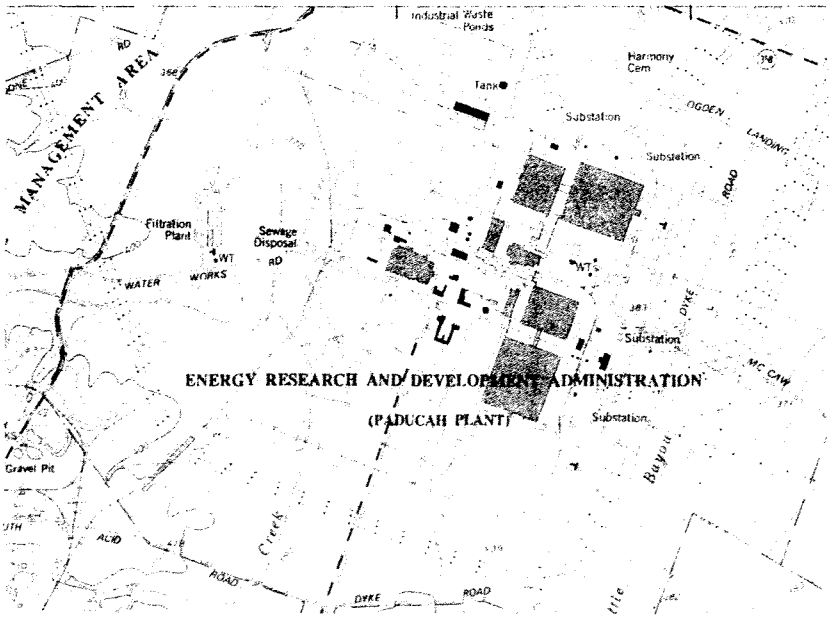
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

Building C-611-R is a 300,000-gallon steel water tank erected in 1953. It has a central water pipe that extends from the tank to below grade. The water tank rests on six, steel support posts which are anchored into concrete pads. The water tank is circular in design and has a metal railing which extends around the tank. The function of C-611-R is to supply capacity and head pressure to the plant process building fire sprinkler system.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-198
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-615 Sewage Disposal Plant

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
____/ _____
____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 806 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____; ____/ _____ first
____/ _____; ____/ _____ second
____/ _____; ____/ _____ third

18. STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
S / poured concrete replacement

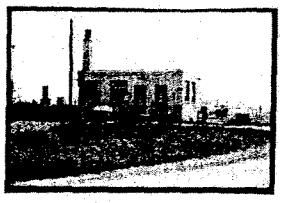
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: ____/ ____/ _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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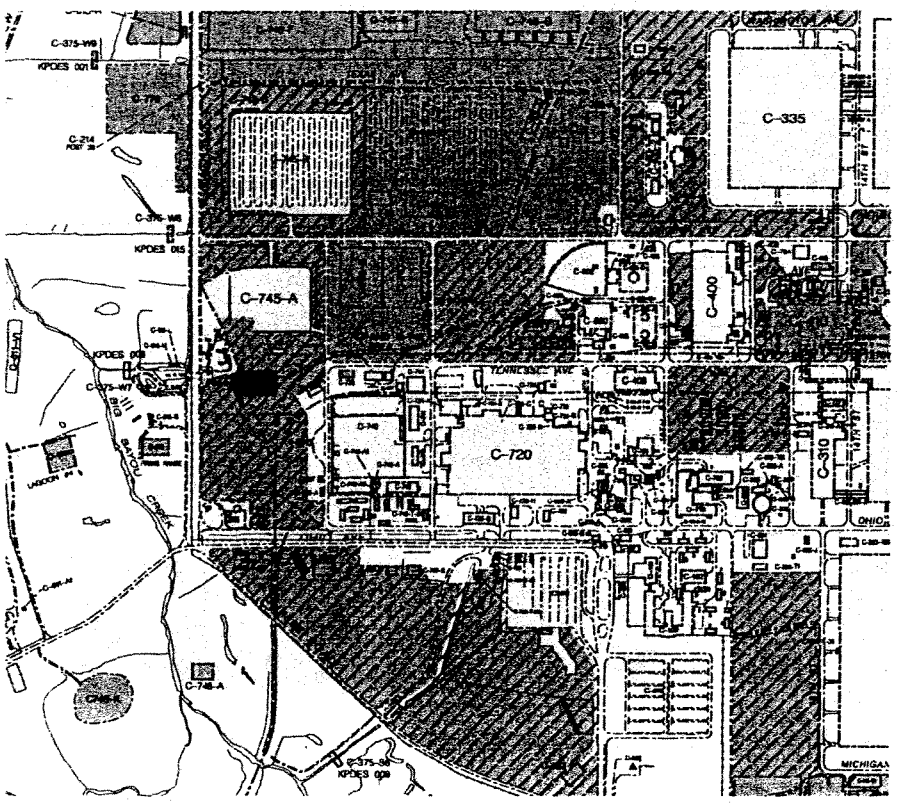
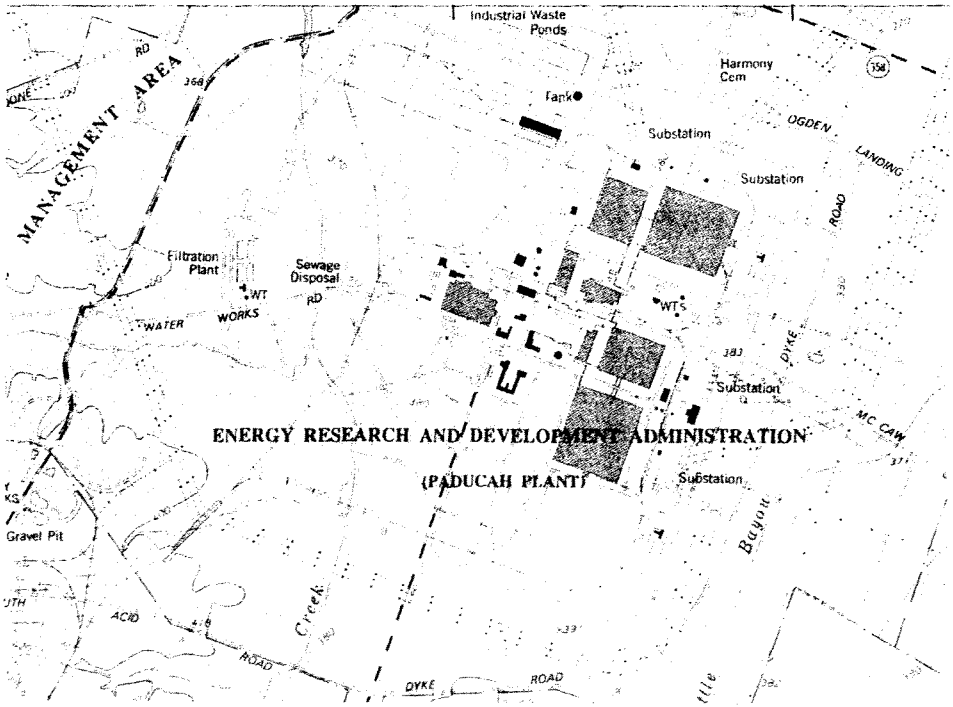
25. SUPPORT RESOURCES:

SITE PLAN KEY	FUNCTION	CONSTRUCTION DATE	METHODMATERIAL
C-615-H	A	Sewage Disposal Plant Lift Station	1952 Concrete Block

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

This complex was built in 1952 and consists of a two-story reinforced concrete building and associated settling tanks and lift stations. Building C-615 has a concrete foundation, a flat roof of gravel and tar, an exterior wall concrete flue and an exterior of smooth concrete. On the east façade are two pedestrian entrances with original two-light steel and glass doors. Windows are original twelve-light and six-light steel hopper design. On the south façade are two windows, one twelve-light and the other an eight-light steel design. The north façade has an exterior wall, a concrete flue and an original twelve-light steel window. On the west façade are two pedestrian entrances with original two-light steel and glass doors. This façade also has two original twelve-light steel and glass windows.

To the east of the main building is a settling tank which is a below-grade rectangular concrete tank with a pipe railing along its perimeter. Other structures include a digester which is circular in design. Also on the property is Building C-615-H , a Sewage Disposal Plant-Lift Station which is a one-story, concrete block building which houses mechanical equipment. It has a poured concrete foundation, a built-up, flat roof and exterior walls of concrete block. On the main (west) façade is a solid steel door. There is a louvered vent on the east façade.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-199
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-616-A Chemical Feed Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 8 / 1978 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 2000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel panels original
O / steel panels replacement

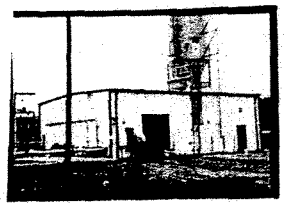
21. ROOF CONFIGURATION/COVERING:

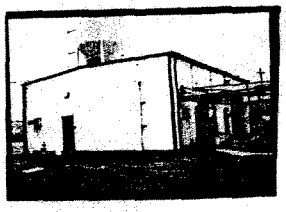
CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	7 / standing metal seam	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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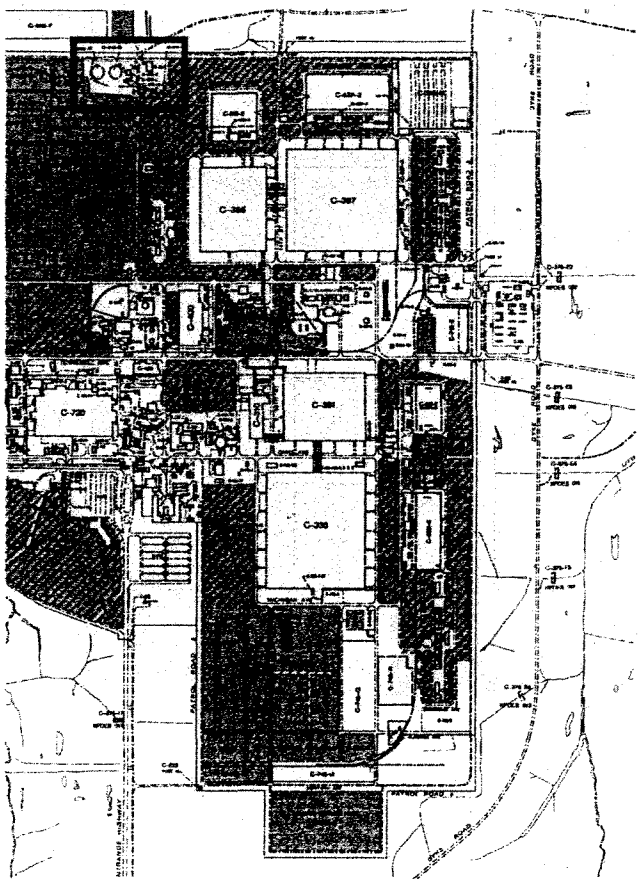
7-12-12

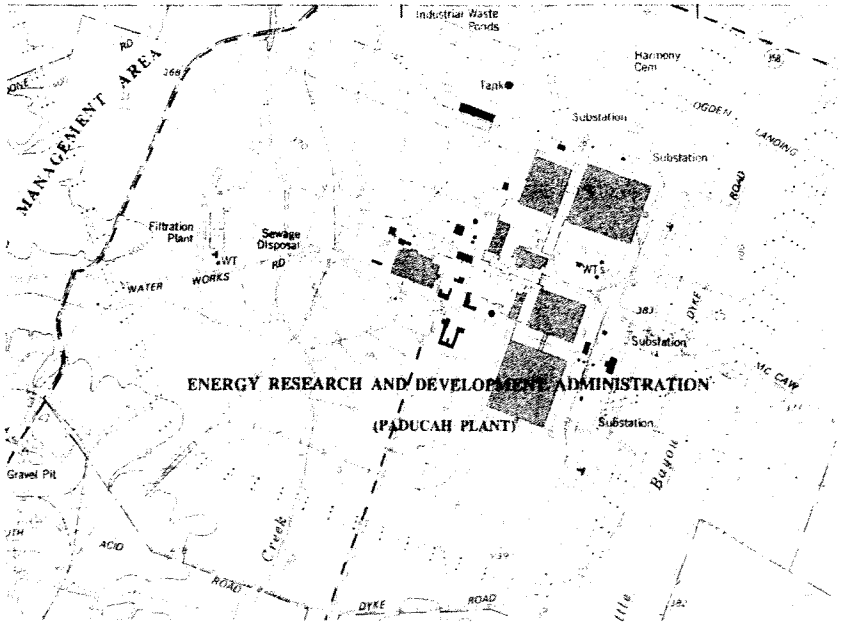
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

Building C-616-A is a one-story, pre-fabricated metal building built in 1978. This building has a poured concrete foundation, a roof of crimped steel panels and exterior walls of steel panels. On the main (E) facade is a garage bay with an overhead steel track door. This façade also has a pedestrian door of single-light, glass and steel design. On the north façade is an entrance with a single-light, steel and glass door. On the west façade is a single-light, steel and glass door and a solid steel door.

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7-2-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-200
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant
Building No. C-616-B Clarifier-East; C-616-M Clarifier–West

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 8 / 1978 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 1350000 gallons
Height _____ Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
0 / n/a	0 / n/a	original
0 / n/a	0 / n/a	replacement

20. PRIMARY WALL MATERIAL:
O / steel original
O / steel replacement

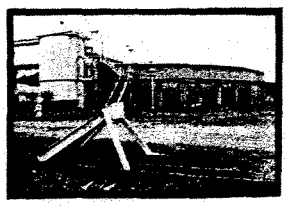
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / n/a	O / n/a	original
O / n/a	O / n/a	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



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(SEE CONTINUATION PAGE)

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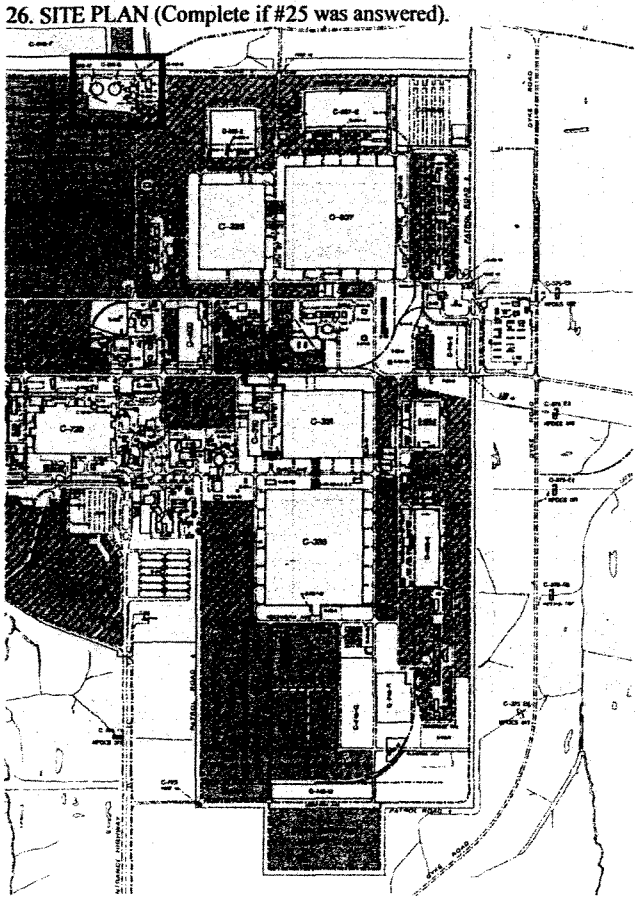
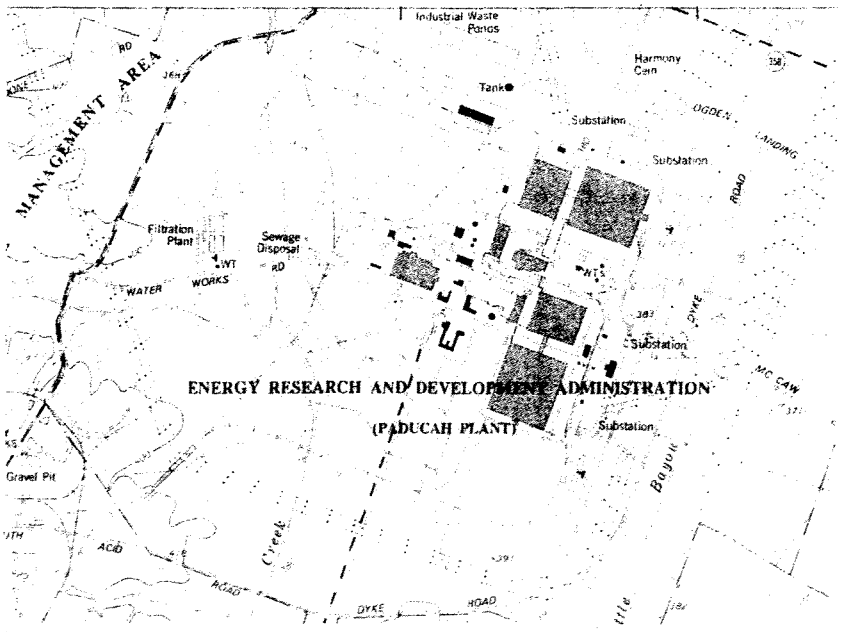
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

To the west of C-616-A are two large identical plan clarifier tanks, C-616M and C-616-B. These are round, steel tanks with large water pipes connecting to nearby pumps. These tanks hold 1,350,000 gallons and were erected in 1978.

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71272

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-201
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-616-K Service Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 9 / 1979 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 420 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

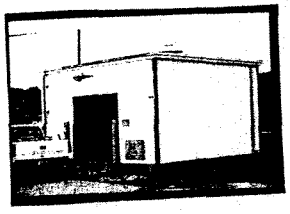
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	8 / steel panels	original
P / shed	8 / steel panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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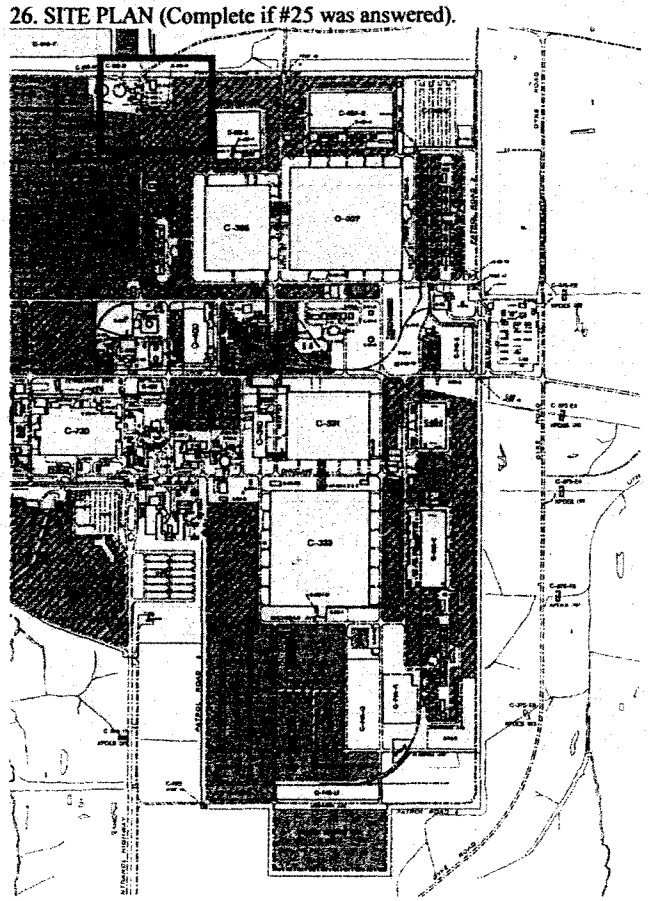
7-12-12

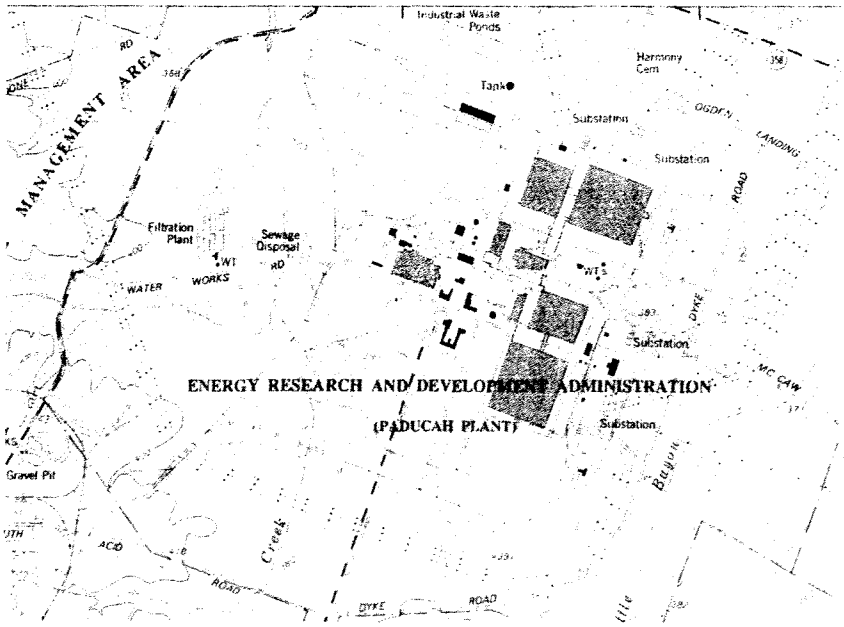
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



COUNTY McCracken

~~OFFICIAL USE ONLY~~ 7-12-11

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Waterworks and Water Treatment Facilities include the main water treatment plant on Water Works Road (Building 611) and the sewage treatment plant (Building C-615). These complexes include sewage lagoons, settling tanks, pump houses, and storage and support buildings. The PGDP has its own water system including elevated water tanks to supply fresh water to all of the buildings in the plant.

C-616-K is a one-story, pre-fabricated metal building erected in 1979. This building has a concrete foundation, a shed roof of steel panels and exterior walls of steel panels. On the main (S) façade is a garage bay with an overhead track steel door. On the west façade is an entrance with a single-light, glass and steel door. There is no fenestration on the east façade and a wall air-conditioning unit on the north façade. At the roofline is a circular vent.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-202
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-620 Air Compressor Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/ _____
_____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / reinforced concrete original
X / X / reinforced concrete subsequent

15. DIMENSIONS: 10000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____; _____/ _____ first
____/ _____; _____/ _____ second
____/ _____; _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

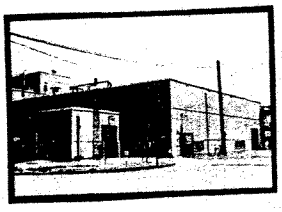
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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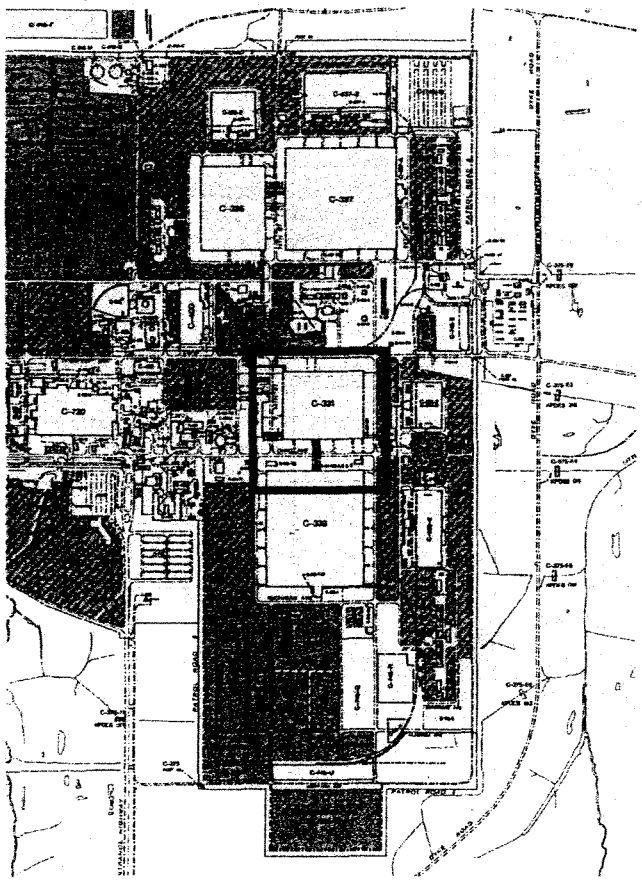
7-5-12

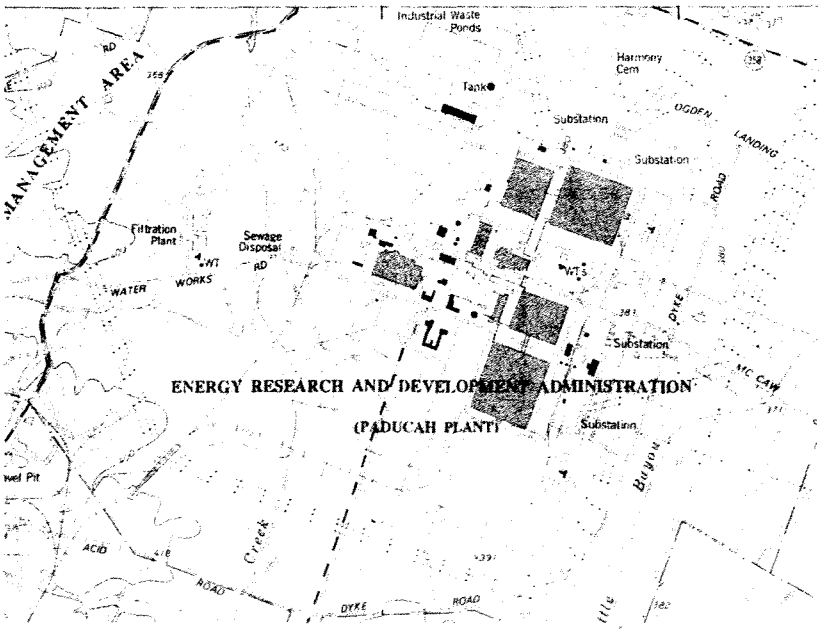
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Processing Buildings are those which are directly involved in the gaseous diffusion process. The feed plant, Building C-410, was completed in 1953 and enlarged with the addition of Building C-420 in 1956. This complex received uranium powder (UO_3) in five-ton containers which was then transferred to the top floor of the building and placed into feed hoppers. It was then reduced to UO_2 through a reaction with hydrogen gas and then further processed into UF_4 or green salt. This product was then chemically "cooked" with fluorine to convert the UF_4 into UF_6 (uranium hexaflouride) prior to being sent into the cascade enrichment system.

The UF_6 gas was sent from Building C-410 to the processing buildings via overhead piping called tie lines. Tie lines connect with all of the main processing buildings. The main processing buildings, C-331, C-333, C-335, and C-337 contain equipment and machinery to complete the extraction of U-235 from U-238 through the gaseous diffusion process. Once sufficiently enriched, the U-235 then was transferred via the tie lines into Building C-310, the Purge and Product Building. Here the enriched uranium was placed into steel cylinders for shipment to clients. The depleted uranium was transferred via tie lines to Building C-315, the Surge and Tails Buildings, and placed within steel cylinders. The entire diffusion process is operated by the instrument control panels in Building C-300, the Central Control Building.

The majority of the Processing Buildings were constructed in rectangular plans and with concrete foundations, steel structural and support systems, flat roofs and exterior walls of transite panels. On the first floor levels of C-331, C-333, C-335, and C-337 are entrances which have surrounds of concrete block and sliding track steel doors. Buildings C-331 and C-335 were built in identical plans and contain 1,029,120 square feet, or approximately 23.6 acres. Buildings C-333 and C-337 were also built in identical plans and contain 2,130,120 square feet or approximately 49 acres. Buildings C-410, C-340, C-310, and C-315 are smaller but also were built with similar construction details. The Central Control Building, C-300, differs from the others through its concrete construction and circular design.

Attached at the south façade of C-315 is a one-story, rectangular plan building built in 1953 which contains air compressing equipment. Designated Building C-620, it has a poured concrete foundation, a flat built-up roof and an exterior of transite panels. On the east façade is a pedestrian entrance with a two-light steel and glass door. On the south (main) façade is a similar entrance at the southwest corner of the building. This façade also has a garage bay at the southeast corner with a steel overhead track door. This façade also displays two, louvered vents. Attached to the west facade of the building is a wing which has a garage bay on the south façade with an overhead steel track door. The west façade of the building has an attached, concrete block wall containing electrical transformers.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-203
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-631-1 Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 9700 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

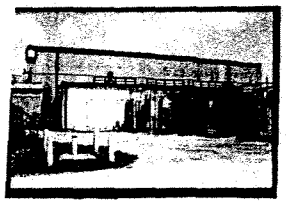
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

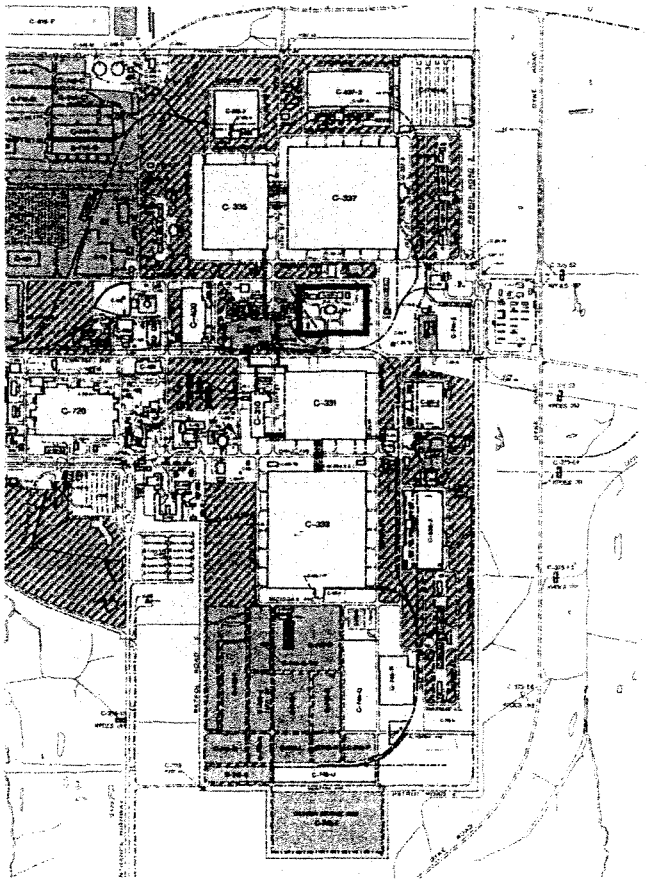
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH 7-12-12

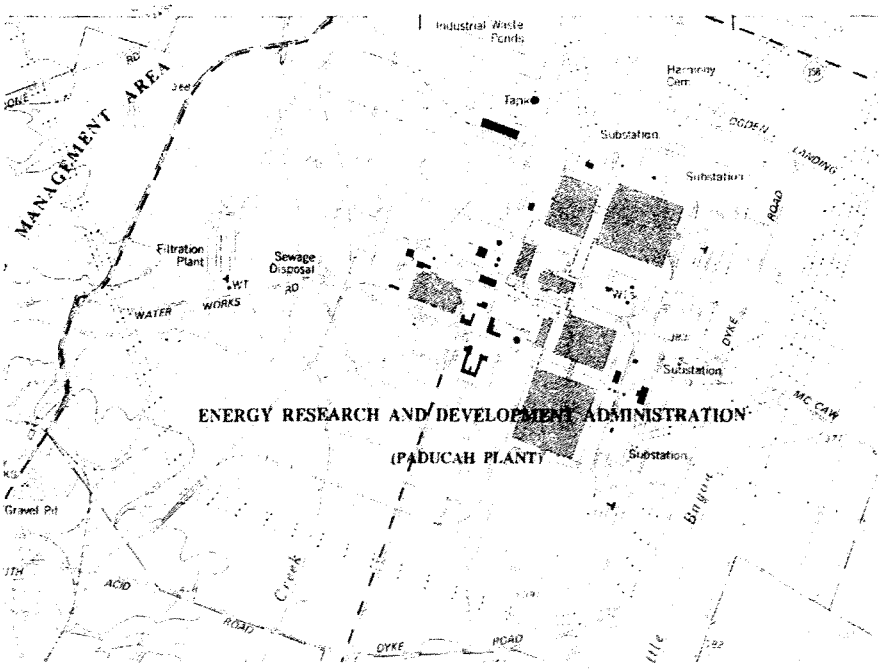
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TA 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-631-1 is a two-story, steel and concrete pump house built in 1952. This facility is the main water pumping station for processing building C-331. It has a poured concrete foundation, a flat, built-up roof and an exterior of transite panels. On the main (E) façade is a garage bay with an original steel overhead track door. This façade also has a pedestrian entrance with an original, two-light steel and glass door. On the first floor of this façade are paired, three-light windows. The lower window panels are fixed while the upper two panels are of awning design. On the second story of the east façade is a row of seven, three-light, steel awning windows. On the south façade of this building is an original one-story concrete wing. This wing has a garage bay with an overhead track door. On the south façade of this wing is attached electrical equipment. The west façade lacks fenestration.

The south and north facades of the main section have rows of three-light, steel awning windows on both floors. The west façade of the main section has an entrance with an original, two-light steel and glass door. On the second floor is a row of seven, three-light steel awning windows. Attached to the north façade is an original one-story concrete wing. This wing has original, double steel doors on the east façade. The north façade of this wing has two pedestrian doors of glass and steel design. This façade also has two loading dock bays; one with an original, two-light, steel and glass door and the other with an overhead steel track door. On the west façade of the wing are ca. 1990 double steel and glass doors.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-204
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-631-2 Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and wood original
X / X / steel and wood subsequent

15. DIMENSIONS: 15248 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels original
Q / wood panels replacement

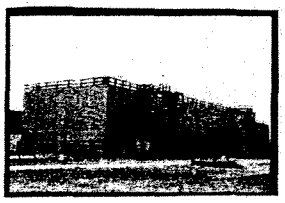
21. ROOF CONFIGURATION/COVERING:

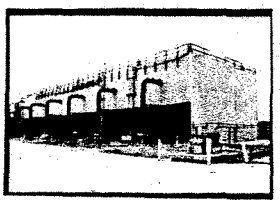
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

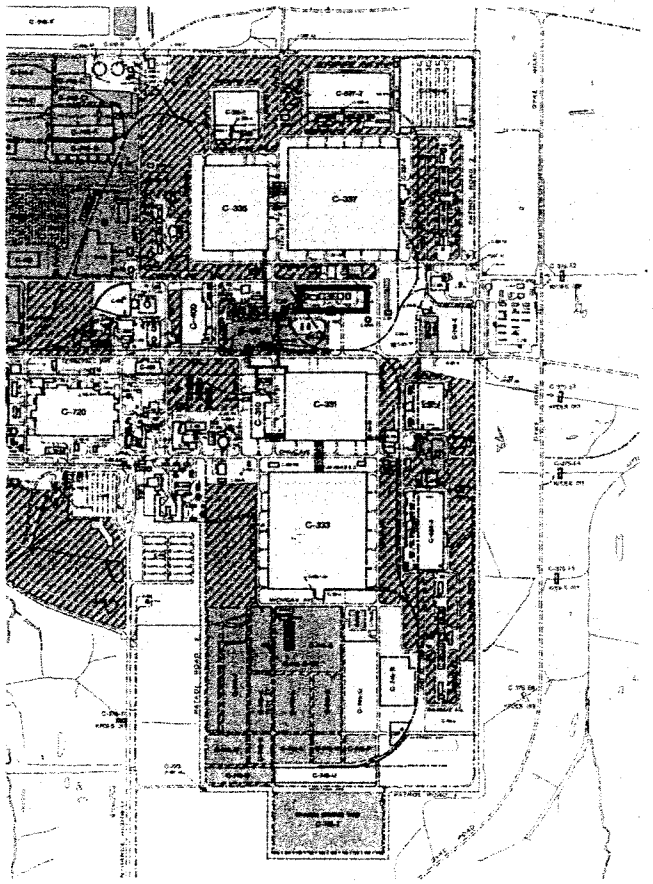
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TA 7-12-16

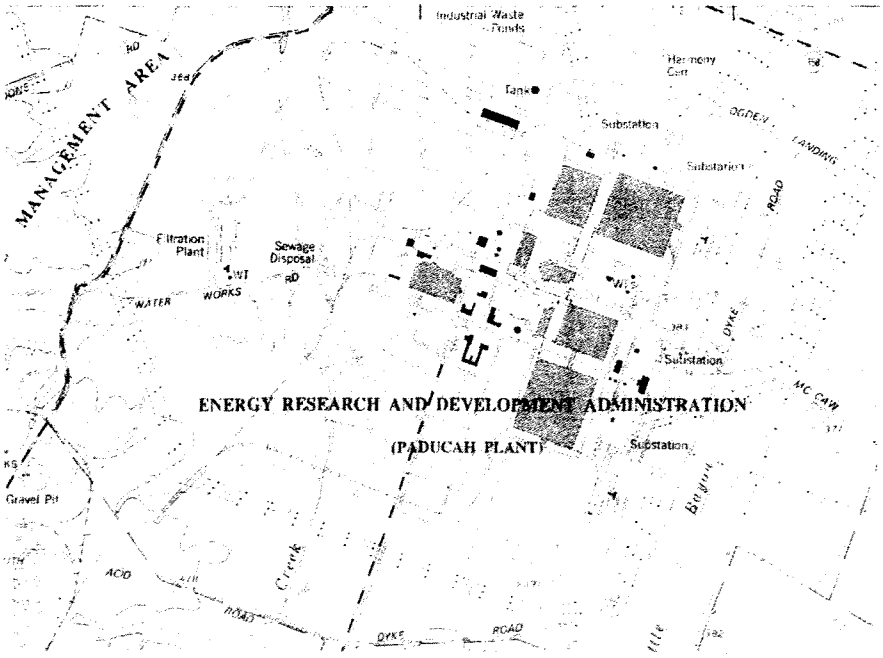
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 71242

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-631-2 is a Cooling Tower of steel and wood construction built in 1953. It has a poured concrete foundation, a flat, built-up roof and an exterior of fiberglass panels. On the south façade is an open wall of rectangular wood panels. The structure contains twelve steel cooling towers at the roof and six steel water pipes that extend from the south and north facades into the water system below grade. Extending the circumference of the structure at the roofline is a wood railing. Adjacent to the south façade is a poured concrete pump house with a metal railing at the roofline. The north wall of the building is open and has rectangular wood panels. Attached to this façade is an exterior wall wood staircase. To the north of the building is a rectangular plan, concrete block, mechanical building with a built-up, flat roof and a ca. 1980, vertical board door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-205
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-631-3 Firewater Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 9 / 1959 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS: 1196 ft² - 3 ft above grade
Height _____ Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	C / concrete block	original
2 / continuous	C / concrete block	replacement

20. PRIMARY WALL MATERIAL:
0 / n/a original
0 / n/a replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / concrete	original
Q / flat	8 / concrete	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

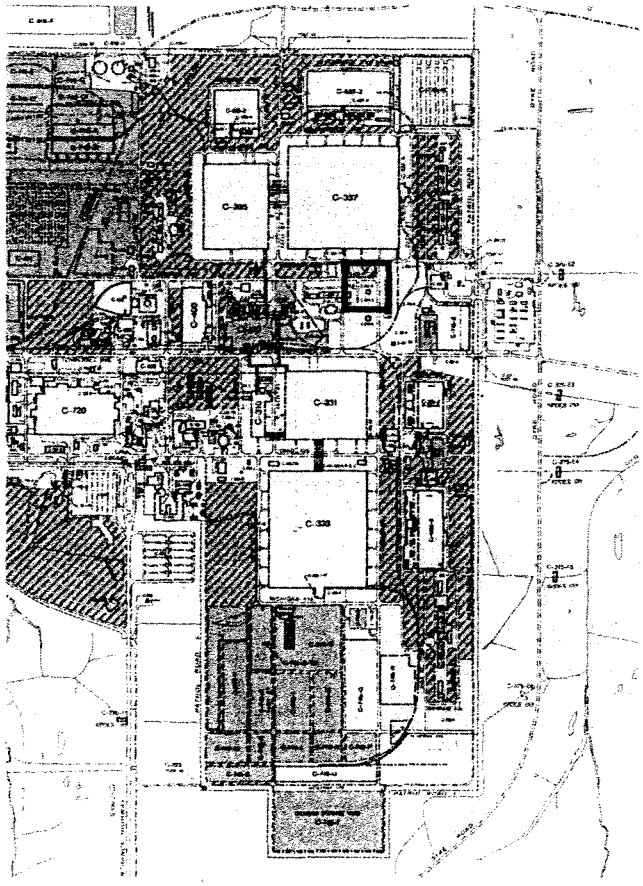
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

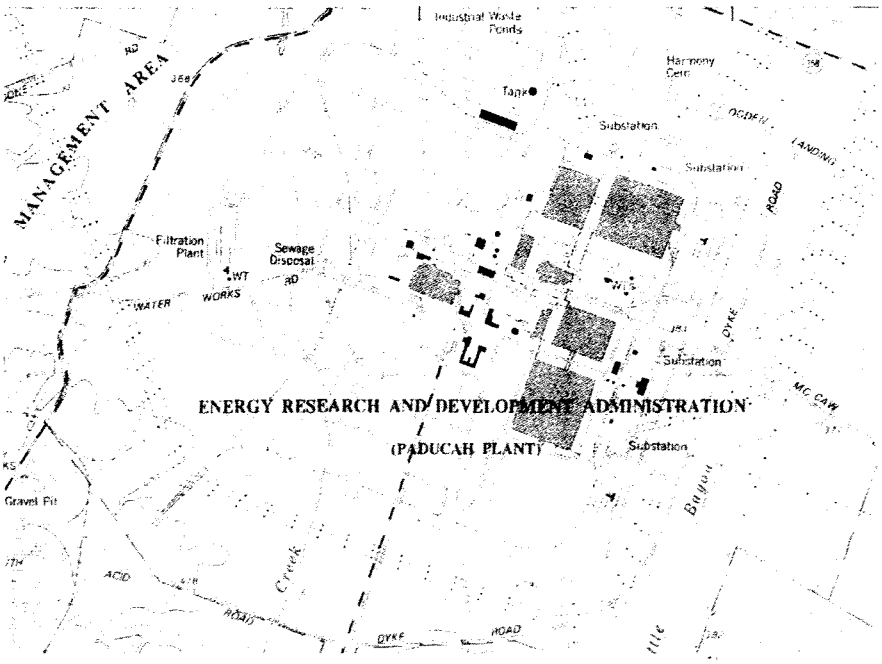
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TA

7-242

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-631-3 is an associated pump house. This pump house was built in 1959, is of concrete block construction and is approximately three feet above grade. This structure has a flat roof and houses mechanical equipment for the adjacent tower.

~~OFFICIAL USE ONLY~~ TR
7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-206
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-631-4 Blending Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 2 / 1982 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 1540 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels original
Q / fiberglass panels replacement

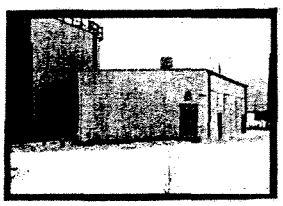
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	6 / built-up	original
P / shed	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

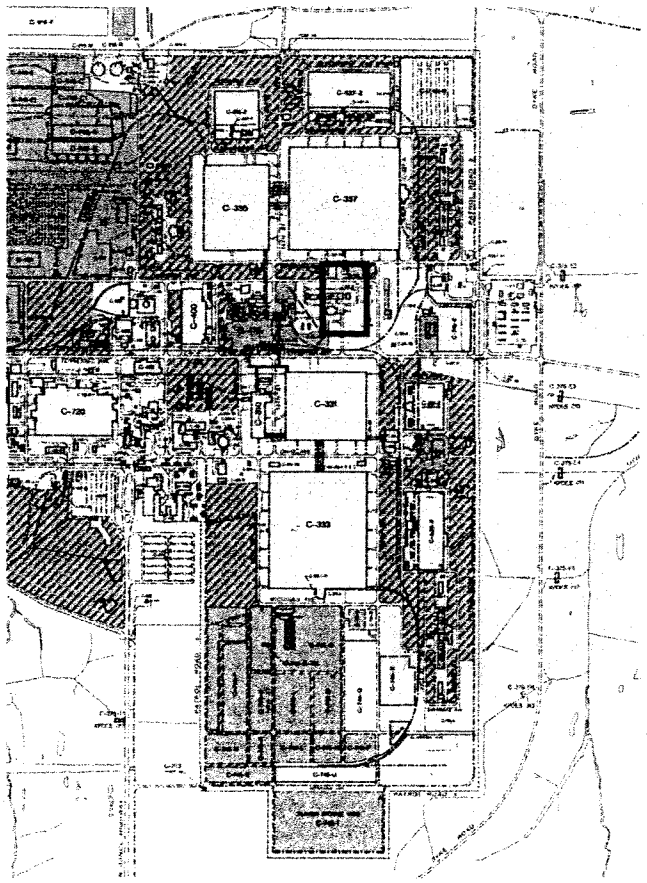
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

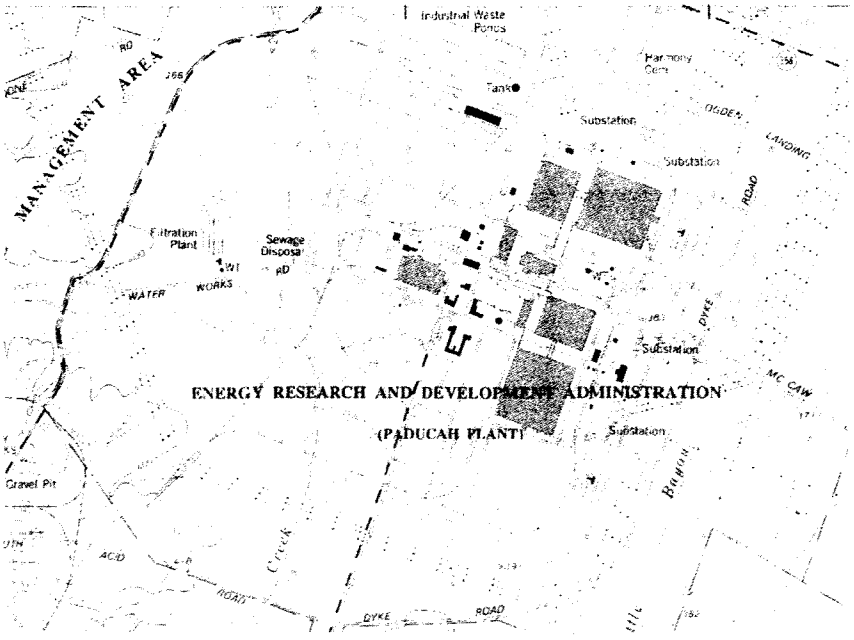
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
712-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-631-4 is a one-story, steel building built in 1982. It has a poured concrete foundation, a built-up, shed roof and an exterior of fiberglass panels. On the main (S) façade is an entrance with a ca. 1980, vertical board wood door. On the west façade are two, steel louvered vent panels. On the north facade is an entrance with a ca. 1980, vertical board wood door. There is no fenestration on the east façade. This façade has two large water pipes which connect with Building C-631-5.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-207
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-631-5 Blending Cooling Tower (West)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and wood original
X / X / steel and wood subsequent

15. DIMENSIONS: 3024 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

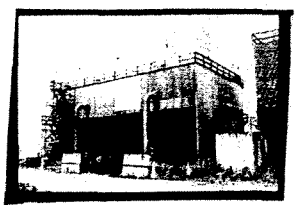
21. ROOF CONFIGURATION/COVERING:

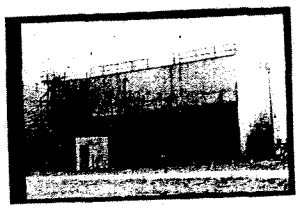
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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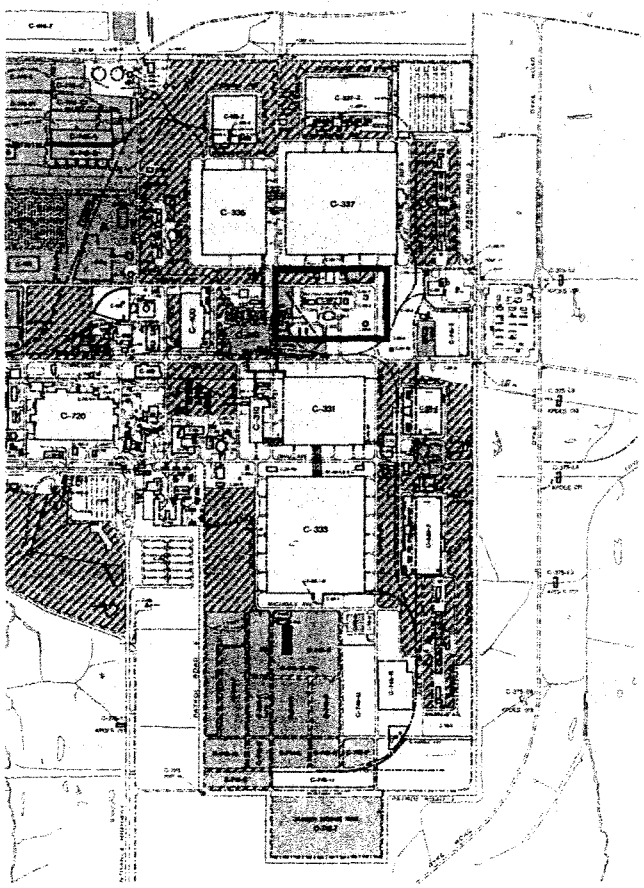
7-12-12

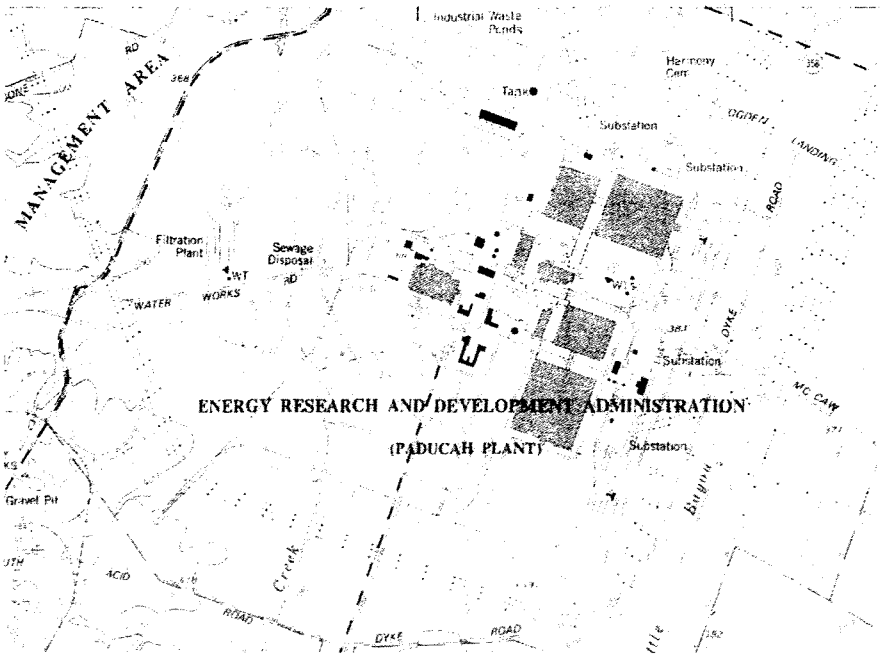
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TB

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-631-5 is a two-story, steel and wood, cooling tower. The structure has a poured concrete foundation, a flat, built-up roof and exterior walls of transite panels. On the south façade is an open wall of rectangular panels. The structure supports two steel towers which are round and have recessed rectangular panels. On the south façade is an exterior wall wood staircase and at the circumference of the roof is a wood railing. On the south façade are two large water pipes which connect below grade to the water system. On the north façade is an exterior wall wood stair. To the north of the building is a small, rectangular plan, mechanical building of concrete block construction. This building has a flat roof and an entrance with a ca. 1980, vertical board wood door.

~~OFFICIAL USE ONLY~~

7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-208
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-631-6 Blending Cooling Tower (East)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 3024 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

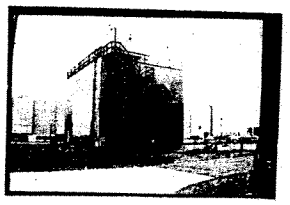
21. ROOF CONFIGURATION/COVERING:

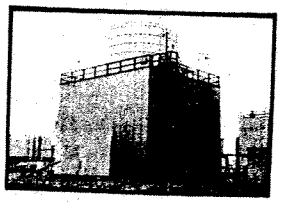
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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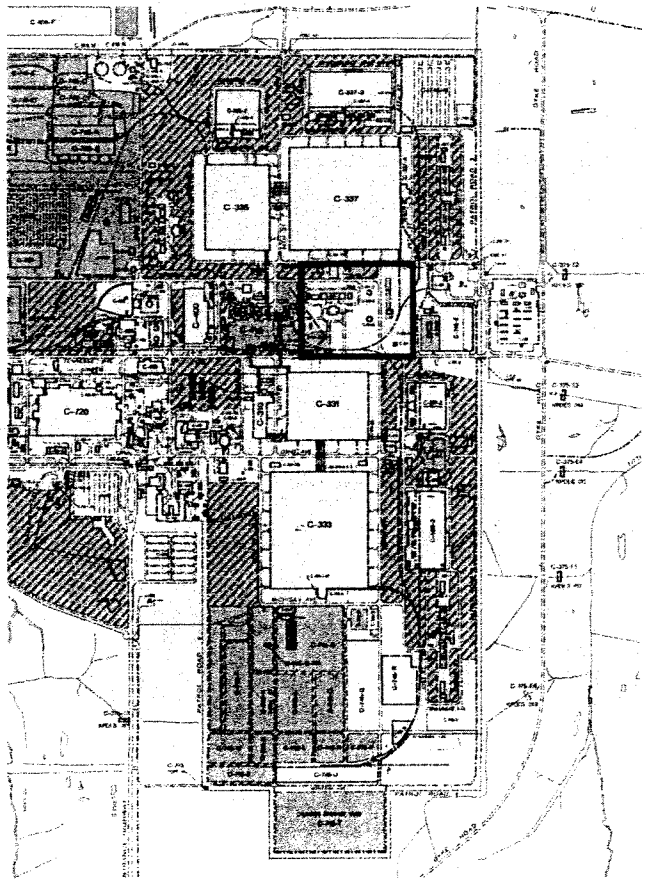
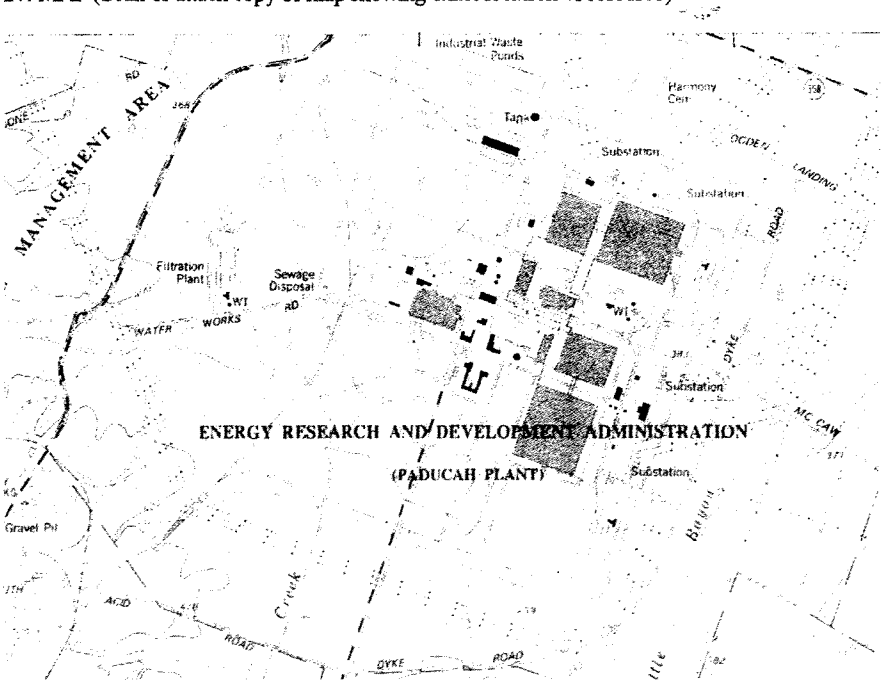
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-631-6 is a one-story structure built in 1953 with a poured concrete foundation and exterior walls of transite panels. The building is of steel construction with an exterior wall on the south façade of open paneled wood construction. On the south façade is an exterior wall wood staircase which connects with the roof the building. At the roofline is a wood railing. At the top the building is a round cooling tower of steel which has a surface of rectangular, recessed panels. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-209
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-1 Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and reinforced concrete original
X / X / steel and reinforced concrete subsequent

15. DIMENSIONS: 10245 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S/Q/ smooth poured concrete and transite panels original
S/Q/ smooth poured concrete and transite panels replacement

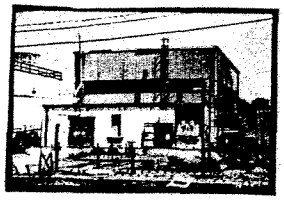
21. ROOF CONFIGURATION/COVERING:

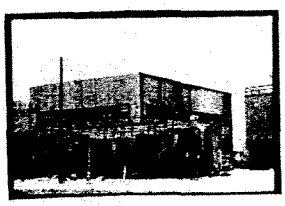
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

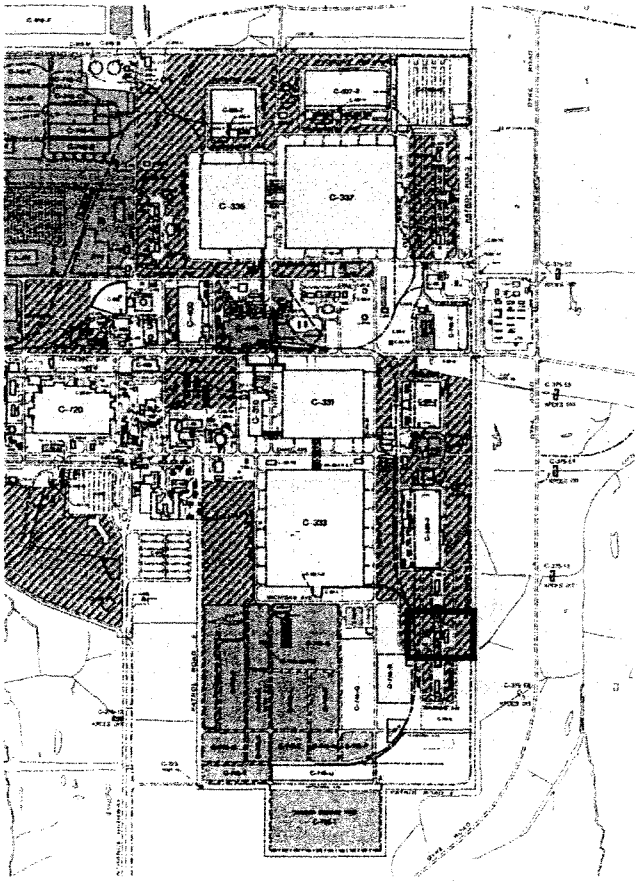
~~OFFICIAL USE ONLY~~

TH
7-12-12

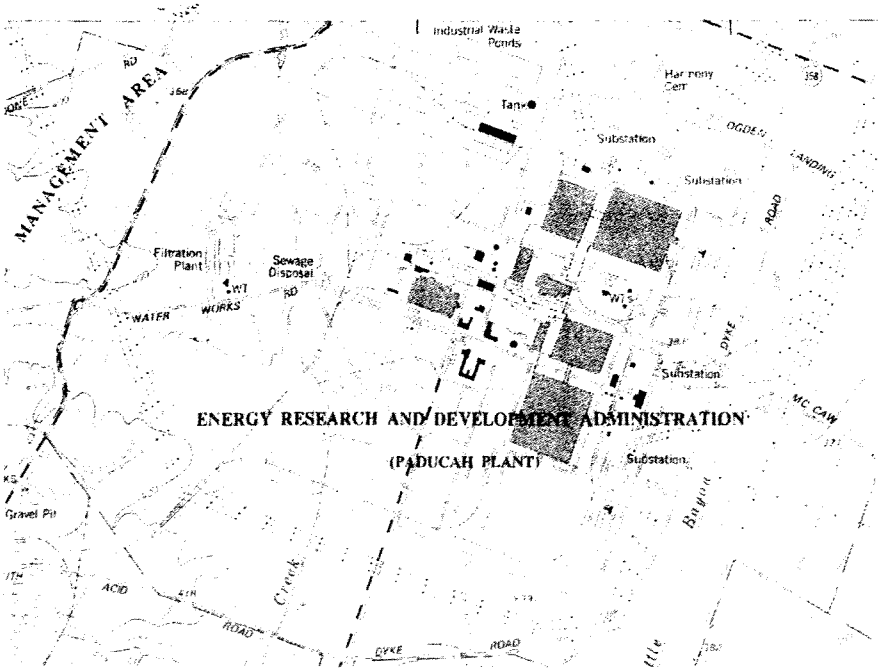
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-633-1 is a two-story pump house built in 1953 of reinforced concrete and steel. The building has a poured concrete foundation, a flat, built-up roof and exterior walls of smooth concrete and transite panels. On the main (west) façade is a one-story concrete wing containing a garage bay entrance with an overhead steel track door. This façade also contains two entrances with solid steel double doors and a central loading dock door of two-panel, steel design. On the north façade of this wing is a solid steel door. On the south façade of this wing is a three-light steel window. The two-story section has a wall of concrete approximately six-to seven feet in height with transite panels above. On the west façade in the second story is a row of eleven, three-light steel windows. The lower window panels are fixed while the upper two panels are awning design. On the north façade, the building has a row of fourteen windows on the first floor and sixteen windows on the second floor. At the northeast corner of the building on the first floor is a garage bay with an overhead steel door. On the east façade is a one-story concrete wing. This wing has two, single-light, steel and glass doors on its west façade. The south façade of the building has sixteen windows on both floors.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-210
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-2A Cooling Tower (South)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 16085 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / fiberglass and open wood panels original
O / fiberglass and open wood panels replacement

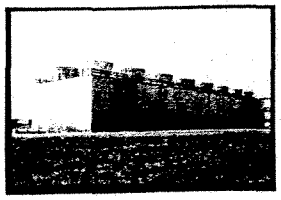
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

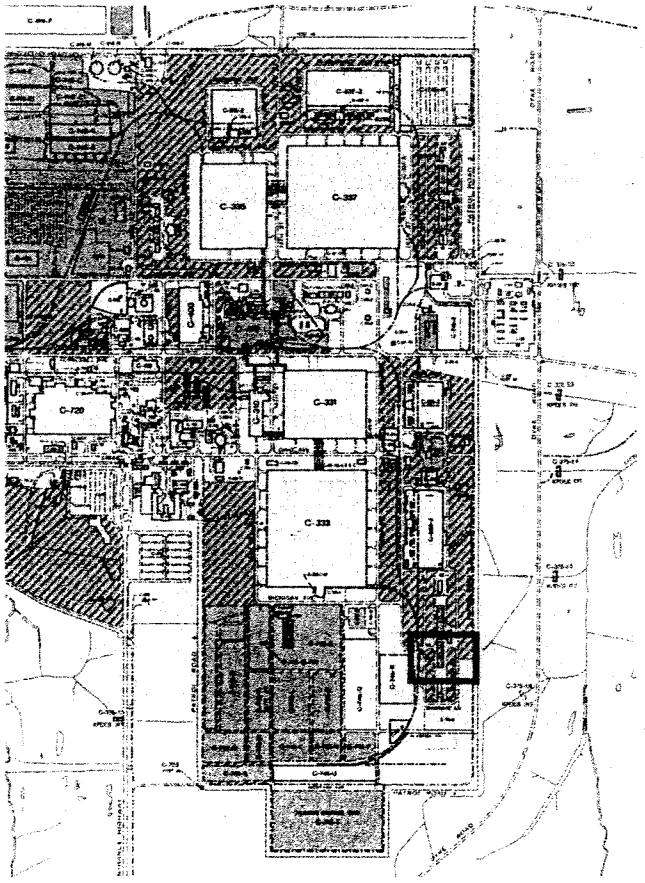
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

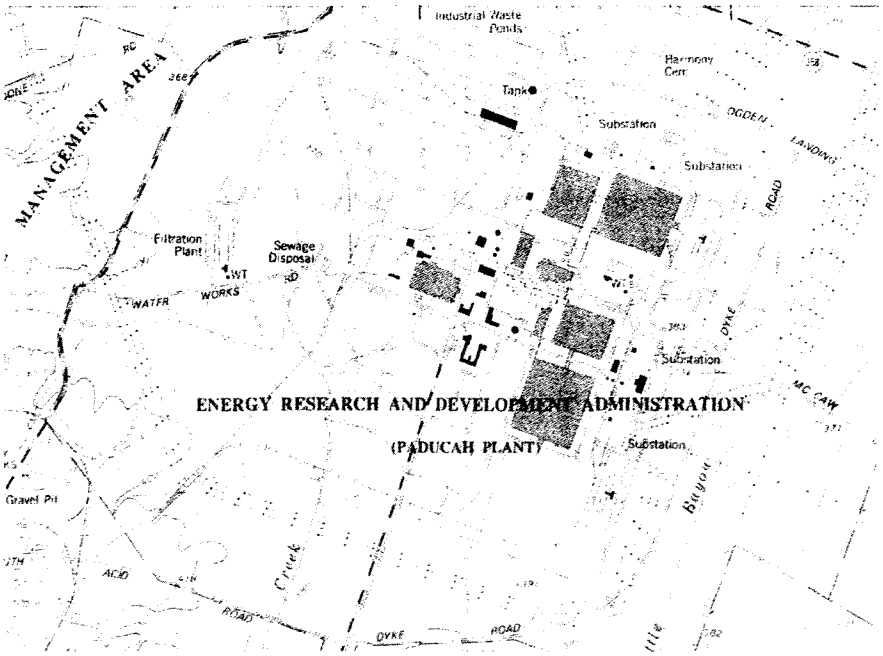
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-633-2A is the Cooling Tower South built in 1953. The structure has a rectangular concrete foundation and basin and exterior walls of fiberglass and open wood panels. The steel structural system supports sixteen cooling towers which are round and of steel construction. Around the perimeter of the roofline is a wood railing. Attached on the west façade are eight, large water pipes. On the west façade are two, concrete block pump houses with vertical board wood doors.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-211
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-2B Cooling Tower (North)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 16085 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass and open wood panels original
Q / fiberglass and open wood panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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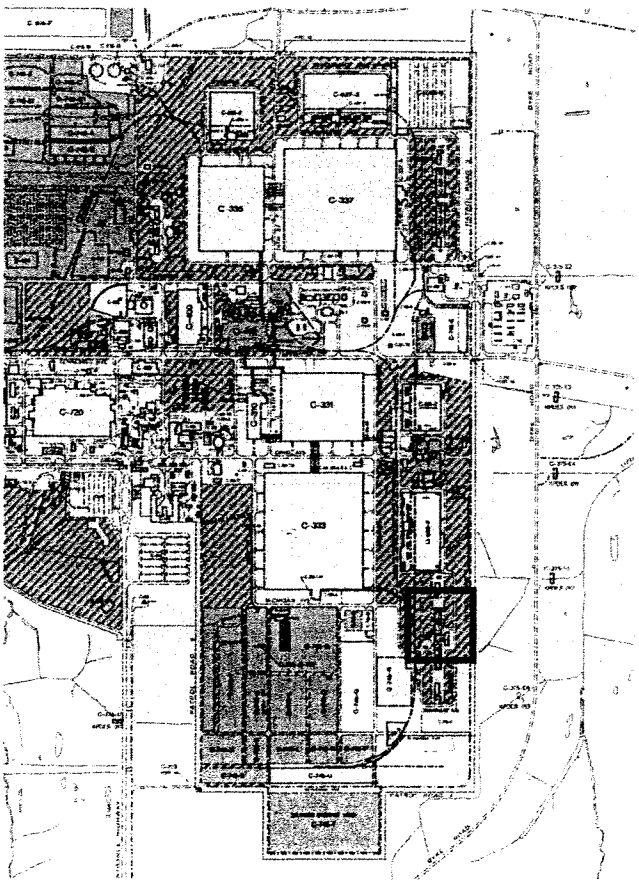
7-12-12

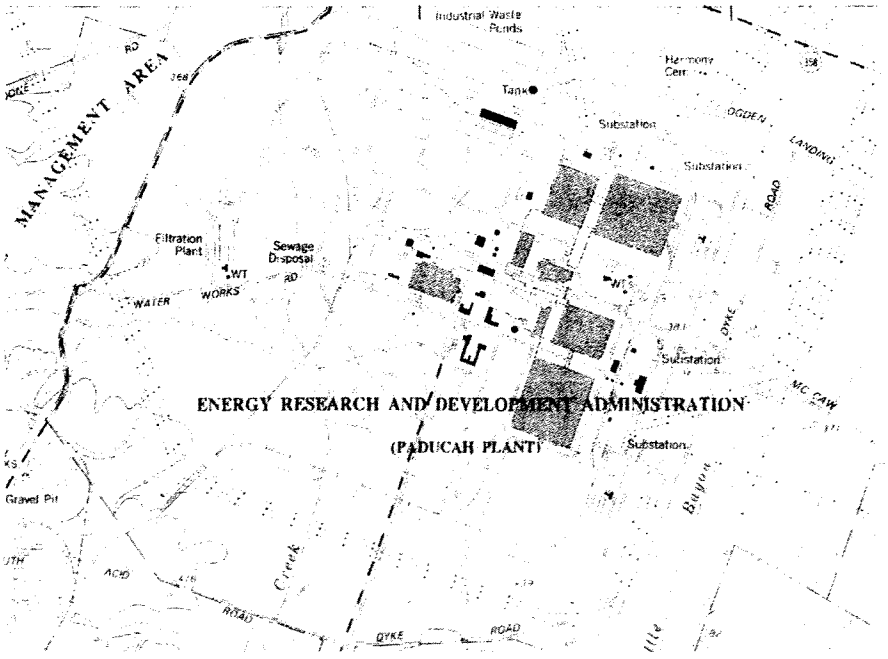
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

This structure (C-633-2B) is the Cooling Tower North built in 1953. The structure has a rectangular concrete foundation and basin and exterior walls of fiberglass and open wood panels. The steel structural system supports sixteen cooling towers which are round and of steel construction. Around the perimeter of the roofline is a wood railing. Attached on the west façade are eight, large water pipes. On the west façade are two concrete-block fire sprinker system valve houses with vertical board wood doors. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-212
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-3 Blending Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 2 / 1982 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 1984 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____; _____ / _____ first
___ / _____; _____ / _____ second
___ / _____; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels original
Q / fiberglass panels replacement

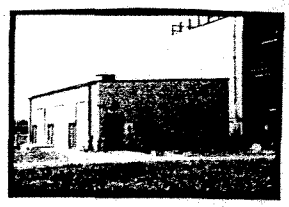
21. ROOF CONFIGURATION/COVERING:

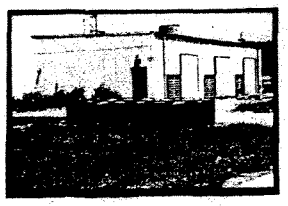
CONFIGURATION	COVERING	
P / shed	6 / built-up	original
P / shed	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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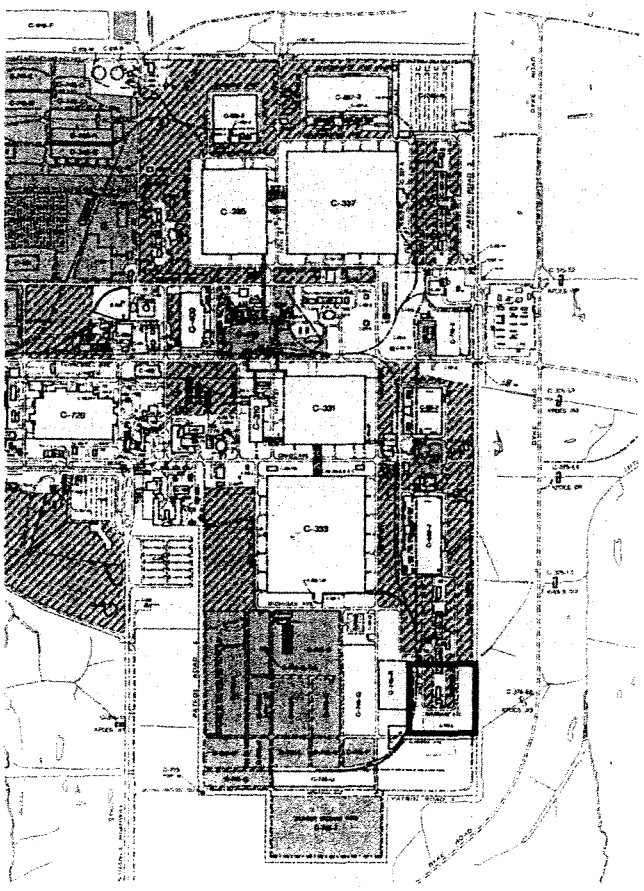
7-12-12

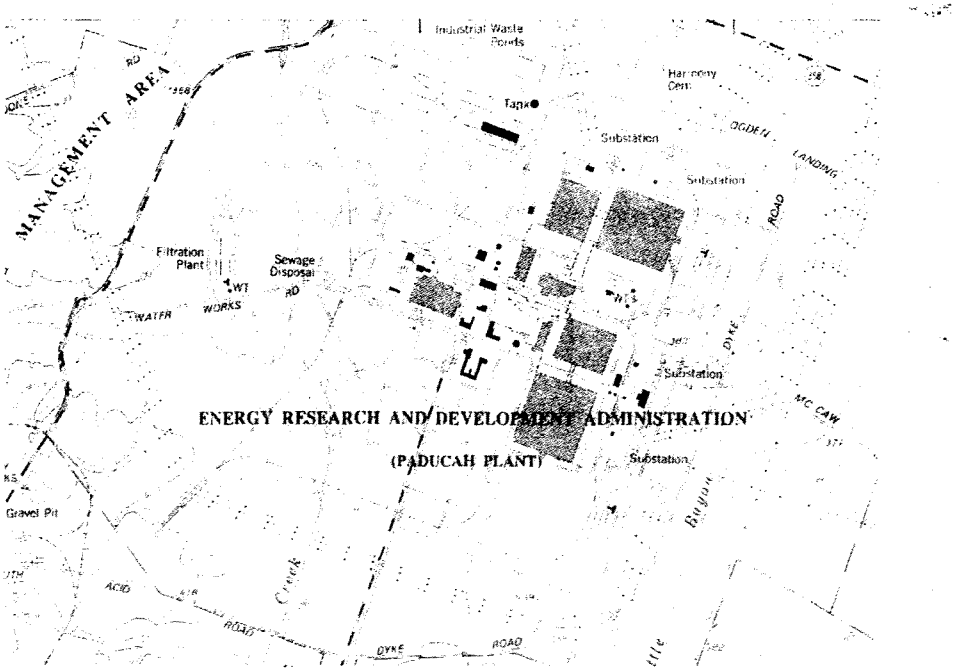
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-633-3 is a one-story building was built in 1982 and has a concrete foundation, a built-up shed roof and an exterior of fiberglass panels. On the main (west) façade is an entrance with a vertical board door. There is no fenestration on the north façade. On this façade are three, large water pipes which connect the building with the adjacent blending tower. On the south façade are three, rectangular openings with louvered steel vents. On the east façade is a vertical board door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-213
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-4 Blending Cooling Tower (North)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 7 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and wood frame original
X / X / steel and wood frame subsequent

15. DIMENSIONS: 4536 ft²
Height _____ Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels and open wood panels original
Q / transite panels and open wood panels replacement

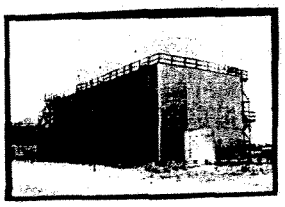
21. ROOF CONFIGURATION/COVERING:

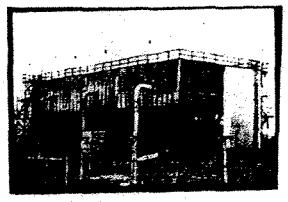
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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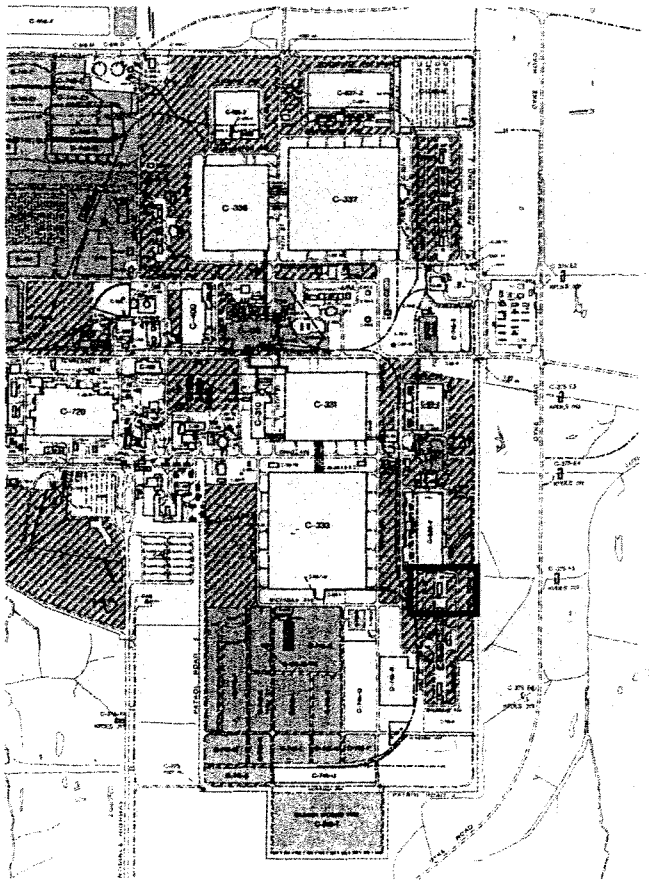
7-12-12

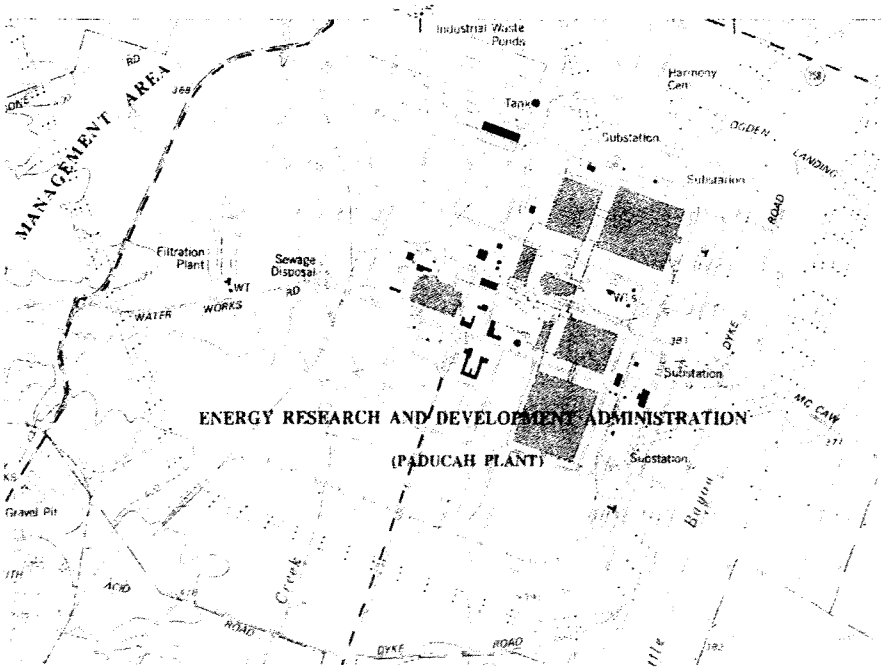
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

This structure (C-633-4) is the Blending Cooling Tower North built in 1953. This cooling tower is composed of a support system of wood frame and steel. The steel support system is beneath the three cooling towers and the exterior walls are of open wood panels and transite panels. The cooling towers are circular in design and of steel construction. On the west façade is a small concrete block pump house with a wood and steel door. This tower rests with a rectangular poured concrete basin to contain water run-off. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-214
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-5 Blending Cooling Tower (South)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and wood frame original
X / X / steel and wood frame subsequent

15. DIMENSIONS: 4536 ft²
Height _____ Width _____ Depth _____

16. PLAN:
____ / _____ first
____ / _____ second
____ / _____ third

17. STYLISTIC INFLUENCE:
____ / _____ ; _____ / _____ first
____ / _____ ; _____ / _____ second
____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / transite, fiberglass and wood panels original
O / transite, fiberglass and wood panels replacement

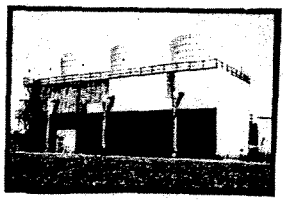
21. ROOF CONFIGURATION/COVERING:

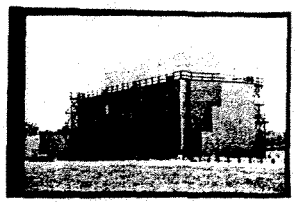
CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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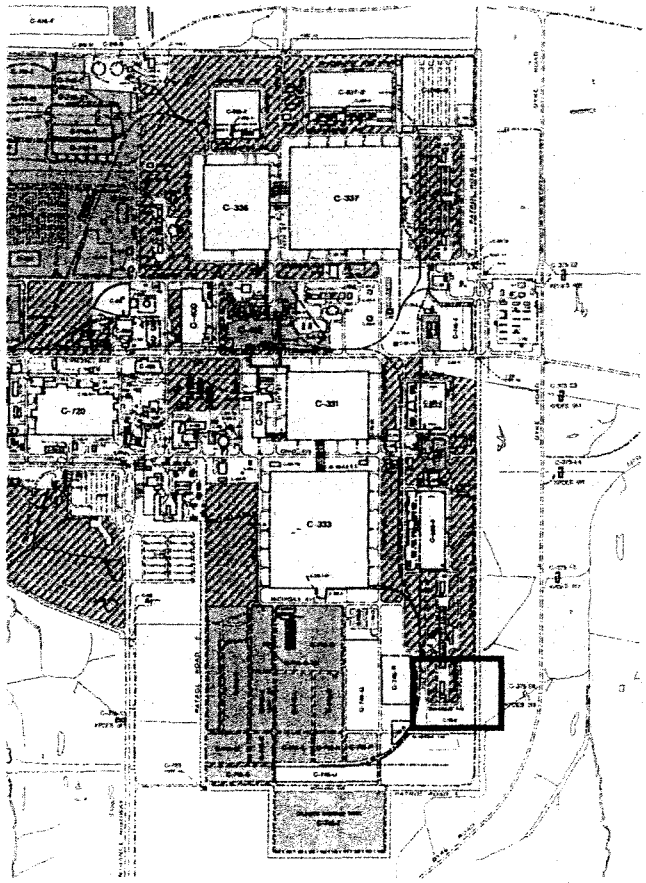
7-12-12

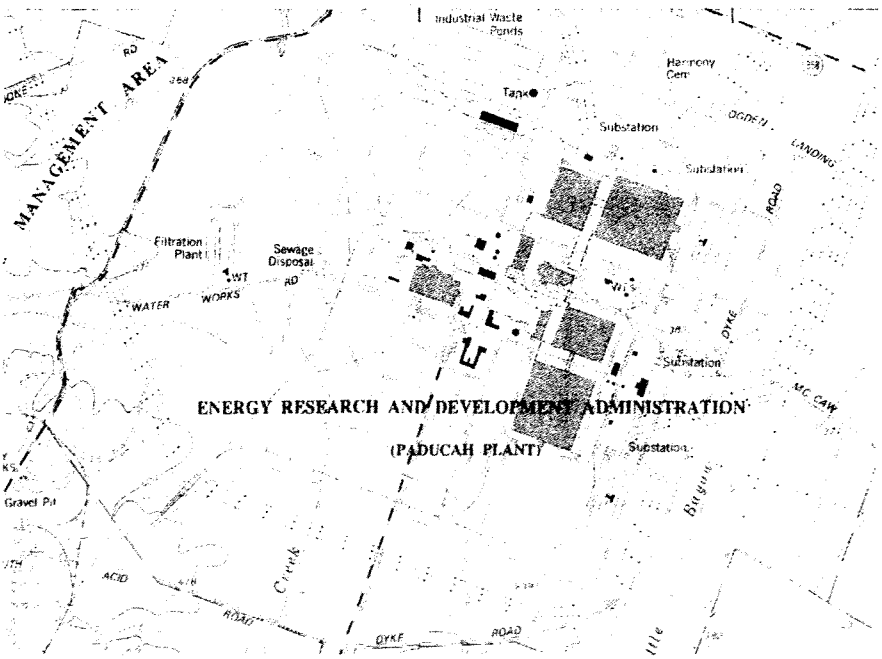
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

This structure is the Blending Cooling Tower South which was built in 1953. This cooling tower is composed of a support system of wood frame and steel. The steel support system is beneath the three cooling towers and the exterior walls are of open wood panels, transite panels and fiberglass. The cooling towers are circular in design and of steel construction. On the west façade is a small concrete block pump house with a wood and steel door. This tower rests on a rectangular poured concrete basin to contain water run-off.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY ~~McCracken~~
RESOURCE # MCN-215
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-633-6 Sand Filter Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 3 / 1983 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 260 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

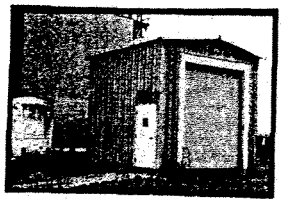
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	8 / steel panels	original
Q / flat	8 / steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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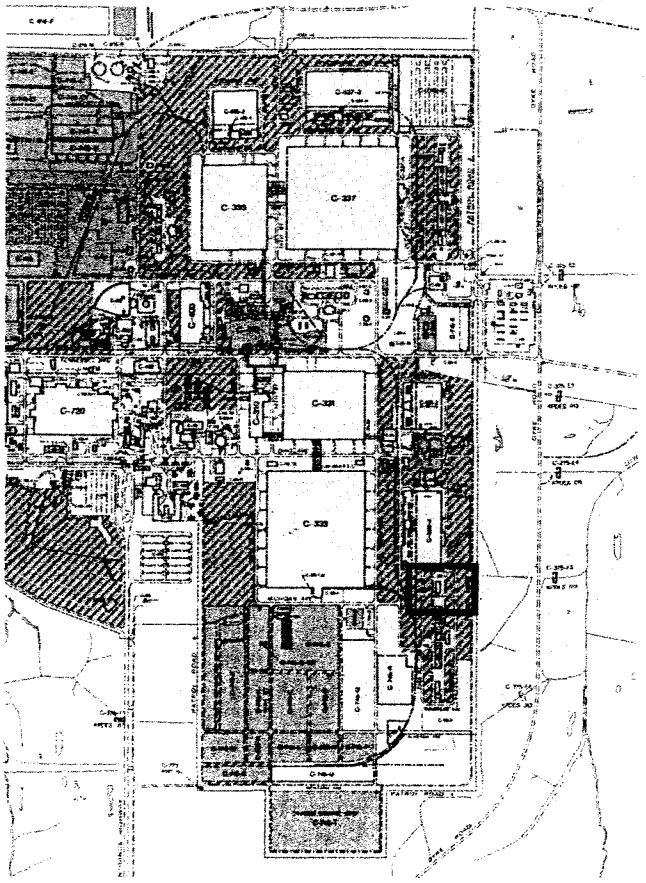
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-04

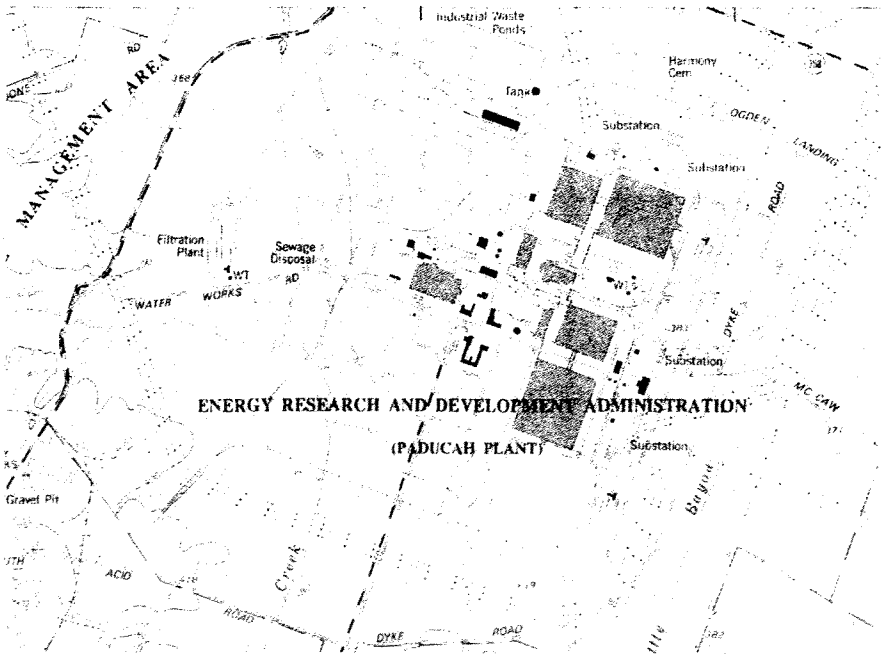
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-633-6 is a one-story, pre-fabricated metal building built in 1983 and used as a sand filter building. It has a poured concrete foundation and roof and walls of steel panels. On the main (N) façade is a garage bay with an overhead track door. On the east façade is a pedestrian door of single-light, steel and glass design. The building has no other fenestration.

~~OFFICIAL USE ONLY~~ TH
7-12-2

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-216
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-635-1 Pump House and Piping

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 8505 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

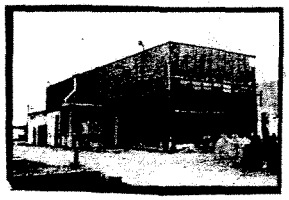
21. ROOF CONFIGURATION/COVERING:

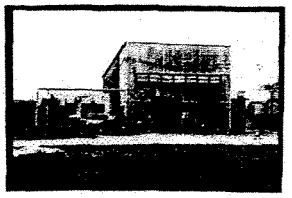
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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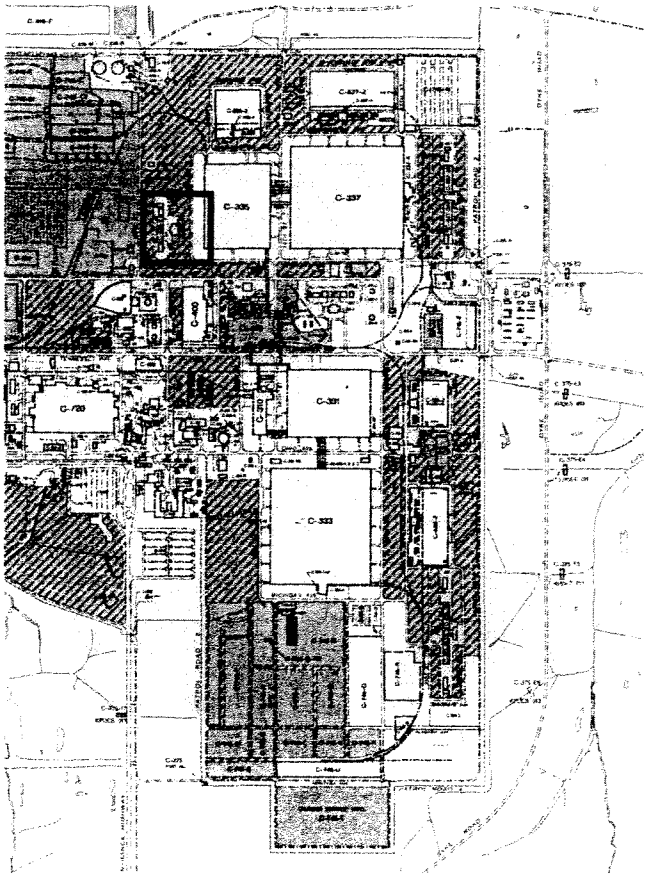
7-12-12

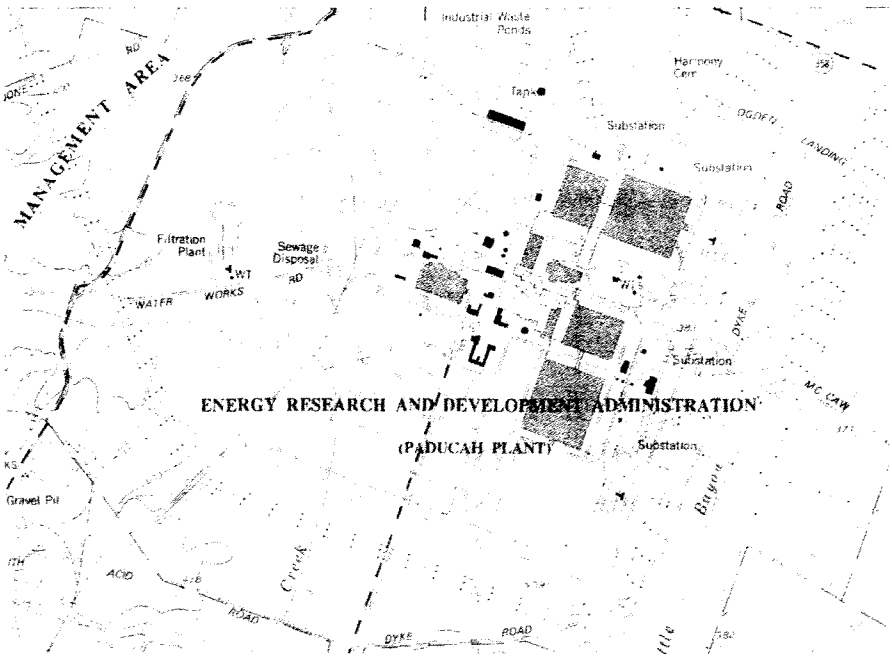
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-635-1 is a two-story, steel frame building constructed in 1954 with a poured concrete foundation, a built-up, flat roof and exterior walls of transite. On the main (north façade is a garage bay with a steel overhead track door. This façade also has a ca. 1990, single-light steel and glass pedestrian door. On the first floor of this façade are paired, three-light, steel awning windows. On the second floor is a row of seven, three-light steel awning windows. Attached to the east facade is a one-story, concrete wing which has a garage bay entrance on the north façade. This entrance has an overhead track steel door. Attached to the east façade of this wing is a concrete block wall containing attached electrical transformers. On the east and west facades of the main section of the building are original, nine-light, steel windows with two-light, hinged panels. On the west façade of the building is a one-story, concrete block wing which has paired, solid, steel doors on the north façade. On the west façade of this wing are two pedestrian entrances with single-light, glass and steel doors. Another entrance on this façade has a solid, steel door. On the south façade is an entrance with an original, two-light, steel and glass door. The second story has a row of seven, three-light, steel windows.

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7-12-12

KENTUCKY HISTORIC RESOURCES

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-217
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-635-2 Cooling Tower

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 15248 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____; _____ / _____ first
___ / _____; _____ / _____ second
___ / _____; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels original
Q / fiberglass panels replacement

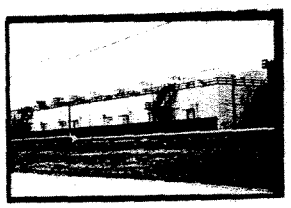
21. ROOF CONFIGURATION/COVERING:

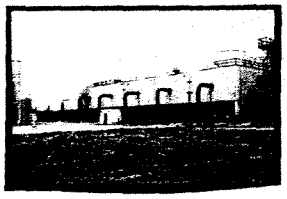
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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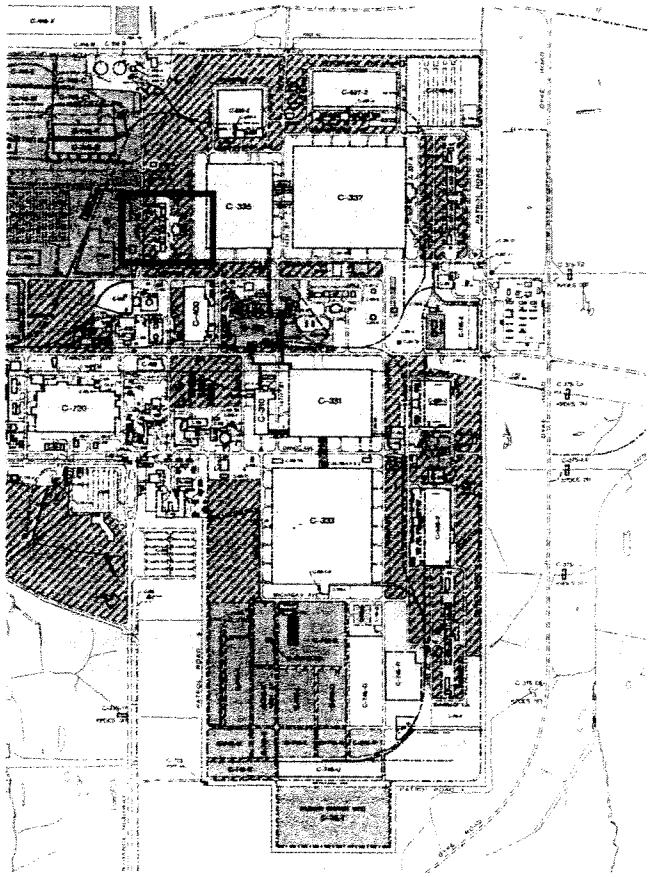
7-12-2

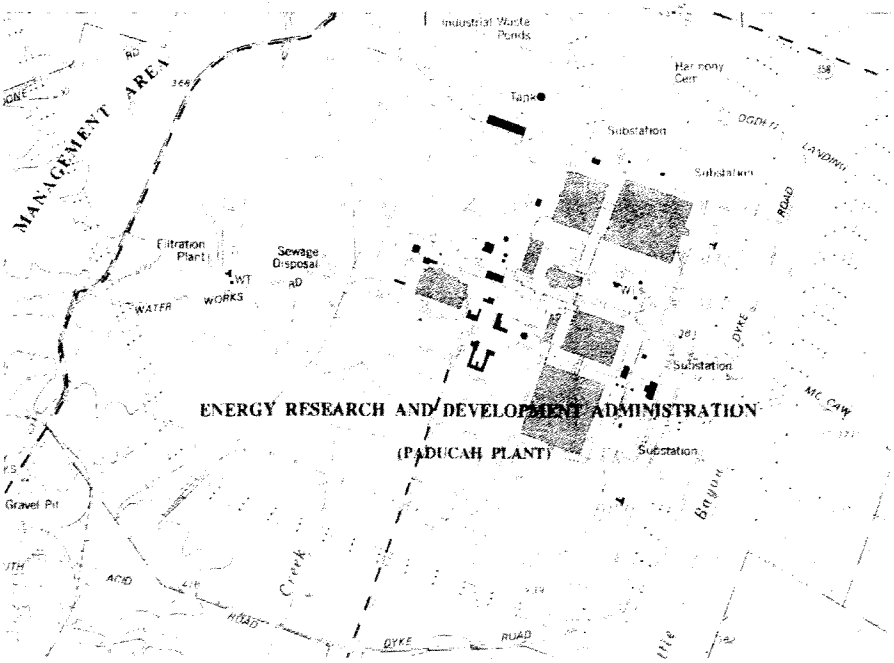
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-635-2 is a two-story structure of steel construction which supports sixteen steel cooling towers. Built in 1954, the building has a poured concrete foundation, a built-up, flat roof and exterior walls of fiberglass panels. On the lower sections of the east and west facades are open, rectangular wood panels. ON the east façade are eight, large water pipes which connect into the below grade pumping systems. To the east of the structure are two concrete block buildings with built-up, flat roofs and solid steel doors. The cooling towers are round and of steel construction. Attached to the west façade are two exterior wood staircases.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-218
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-635-3 Blending Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 2 / 1982 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 1984 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels original
Q / fiberglass panels replacement

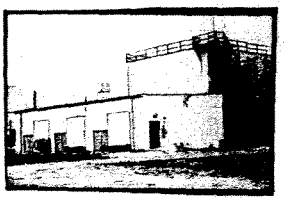
21. ROOF CONFIGURATION/COVERING:

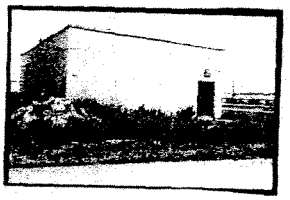
CONFIGURATION	COVERING	
P / shed	6 / built-up	original
P / shed	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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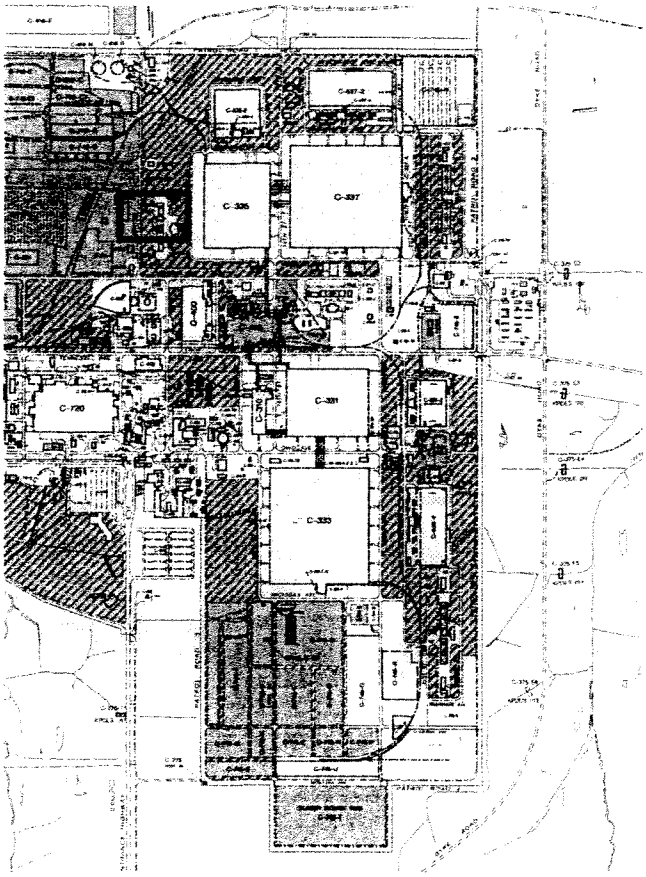
7-12-12

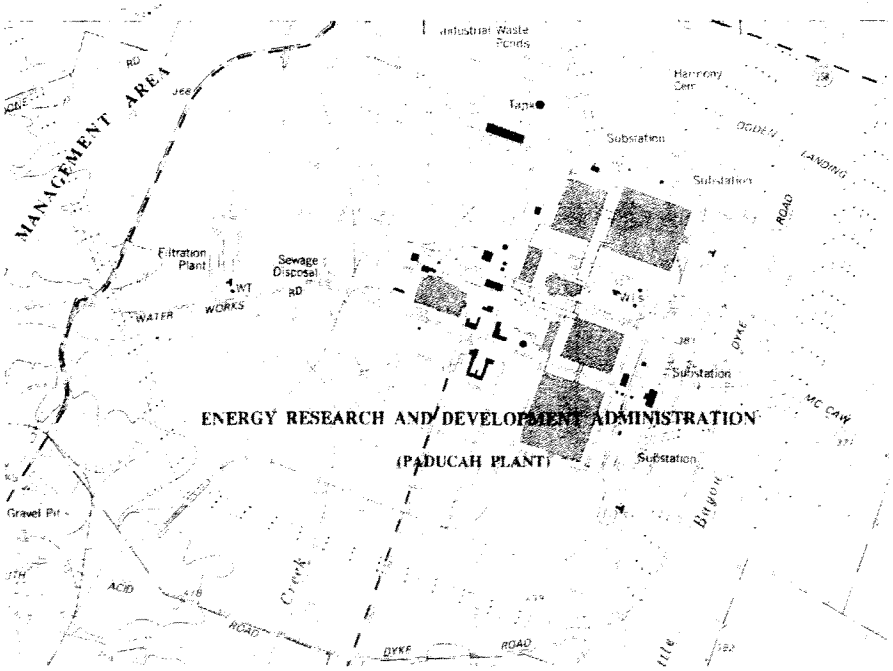
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectior of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-635-3 is a one-story, steel frame pump house built in 1982. The building has a built-up shed roof, an exterior of fiberglass panels and a poured concrete foundation. On the main (E) façade is a ca. 1980, vertical board door. There is no fenestration on the south façade except for two large water pipes which connect with the adjacent cooling tower. On the north façade are three, louvered vents. On the west façade is an entrance with a ca. 1980, vertical board door.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-219
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-635-4 Blending Cooling Tower (North)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 _____ documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 2520 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels and fiberglass original
Q / transite panels and fiberglass replacement

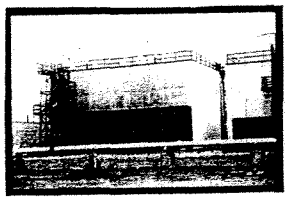
21. ROOF CONFIGURATION/COVERING:

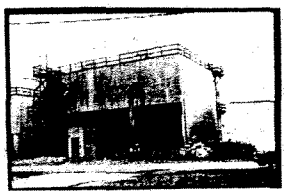
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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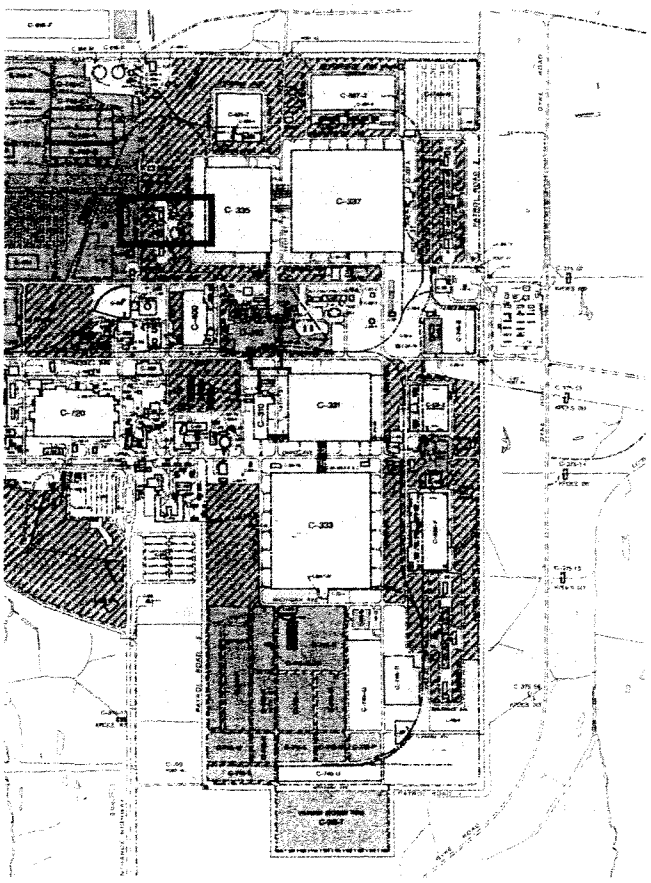
7-12-12

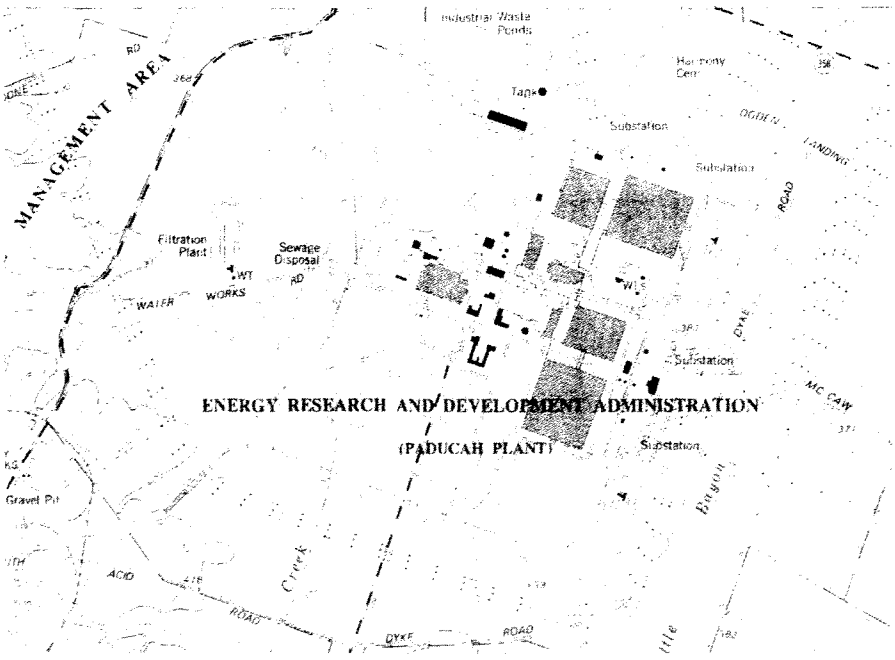
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-635-4 is a two-story structure of steel construction which supports two steel cooling towers. Built in 1954, the structure has a poured concrete foundation, a built-up, flat roof and exterior walls of fiberglass and transite panels. Both the east and west facades have open walls below the transite panels of rectangular wood panels. On both the east and west facades are exterior wall, wood staircases. On the east façade are two, large pipes which connect the towers with the pumping station. The towers are steel and have recessed rectangular panels. At the roofline is a wood railing which extends the circumference of the building. To the east the building is a one-story, concrete block, mechanical building with a built-up flat roof and an entrance with a ca. 1980, vertical board door.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-635-5 Blending Cooling Tower (South)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 3024 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels and fiberglass original
Q / transite panels and fiberglass replacement

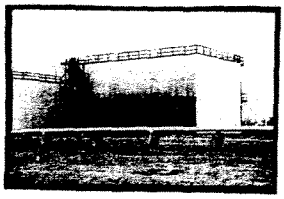
21. ROOF CONFIGURATION/COVERING:

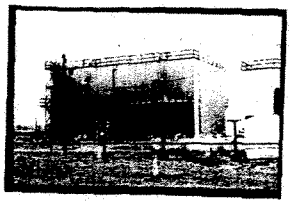
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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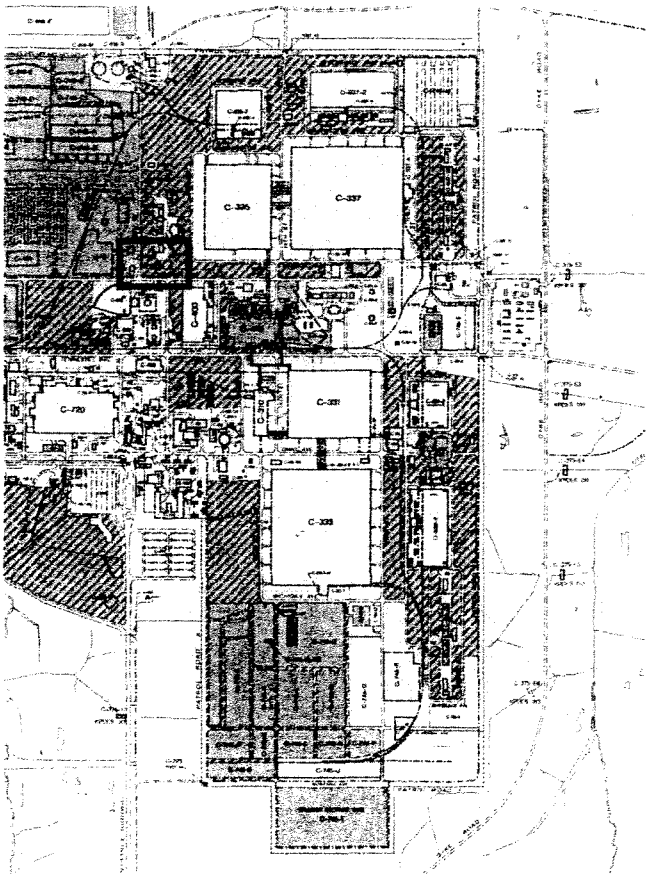
7-12-12

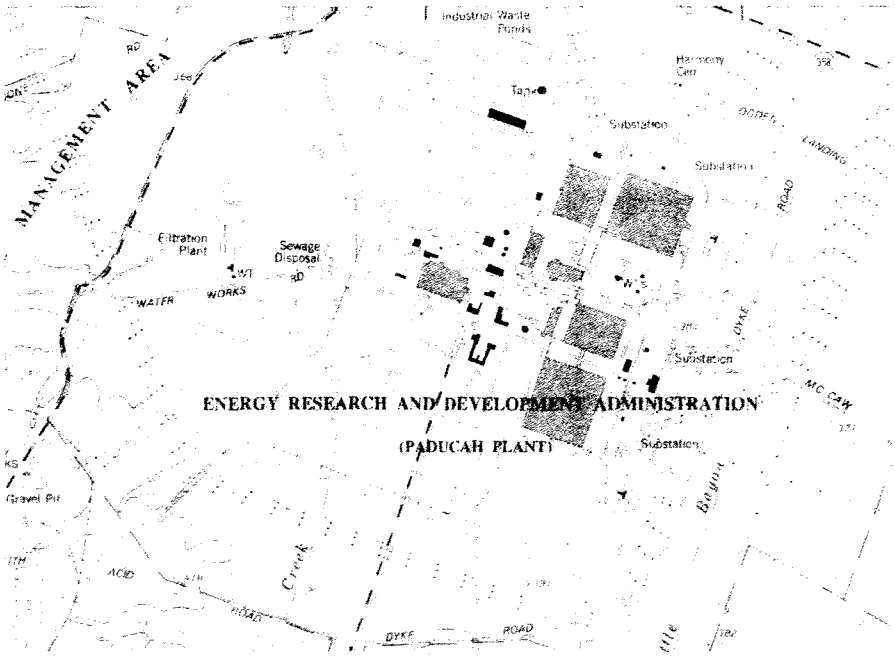
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TB
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-635-5 is a two-story structure of steel construction which supports two steel cooling towers. Built in 1954, the structure has a poured concrete foundation, a built-up, flat roof and exterior walls of fiberglass and transite panels. Both the east and west facades have open walls below the transite panels of rectangular wood panels. On both the east and west facades are exterior wall, wood staircases. On the east façade are two, large pipes which connect the towers with the pumping station. The towers are steel and have recessed rectangular panels. At the roofline is a wood railing which extends the circumference of the building. To the east the building is a one-story, concrete block, mechanical building with a built-up flat roof and an entrance with a ca. 1980, vertical board door.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-221
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-635-6 Process Waste Heat Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 3 / 1983 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 2556 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels original
Q / fiberglass panels replacement

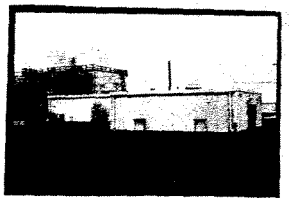
21. ROOF CONFIGURATION/COVERING:

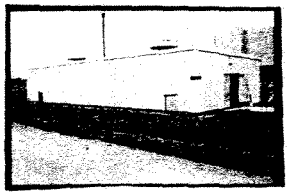
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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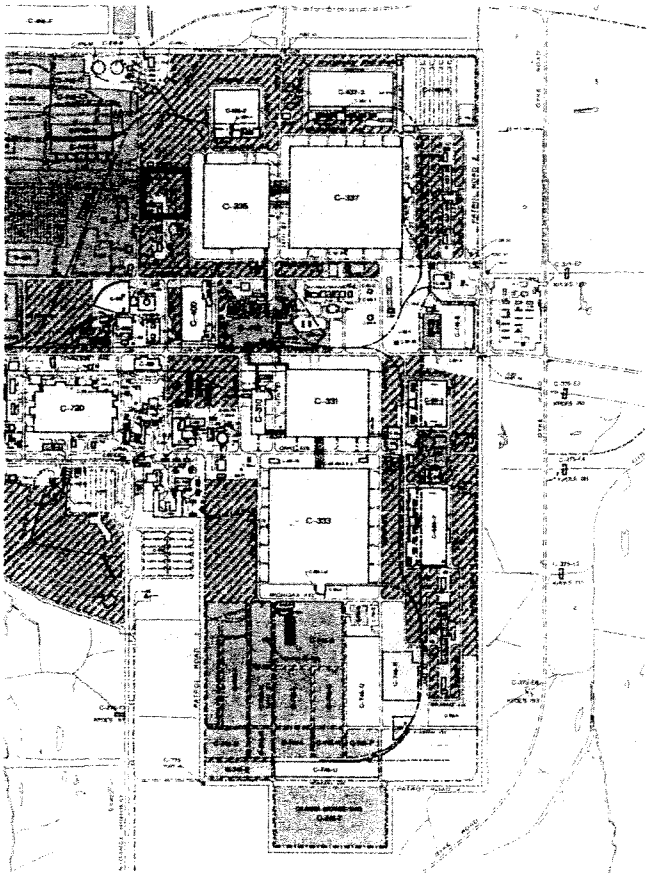
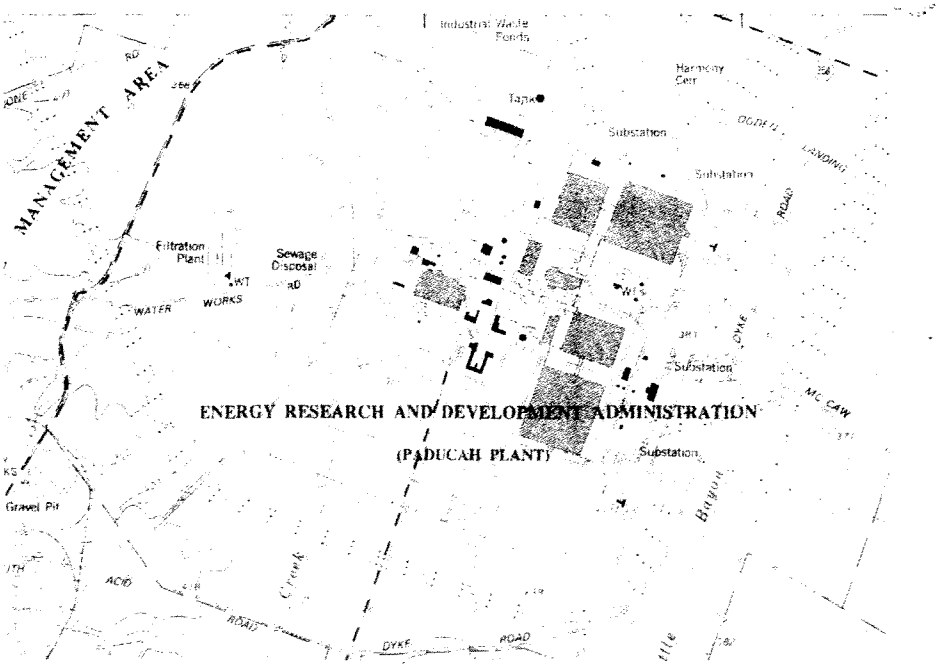
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the seconc phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completec in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-635-6 is a one-story, pre-fabricated steel building built in 1983 and used as a process waste heat pump house. It has a poured concrete foundation, a built-up, flat roof and an exterior of fiberglass panels. On the north and south facades are ca. 1990, steel double doors. The building lacks any additional fenestration. At the roofline are two circular, metal vents.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-1 Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 9700 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O/S/ transite panels and concrete original
O/S/ transite panels and concrete replacement

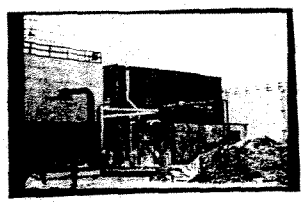
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

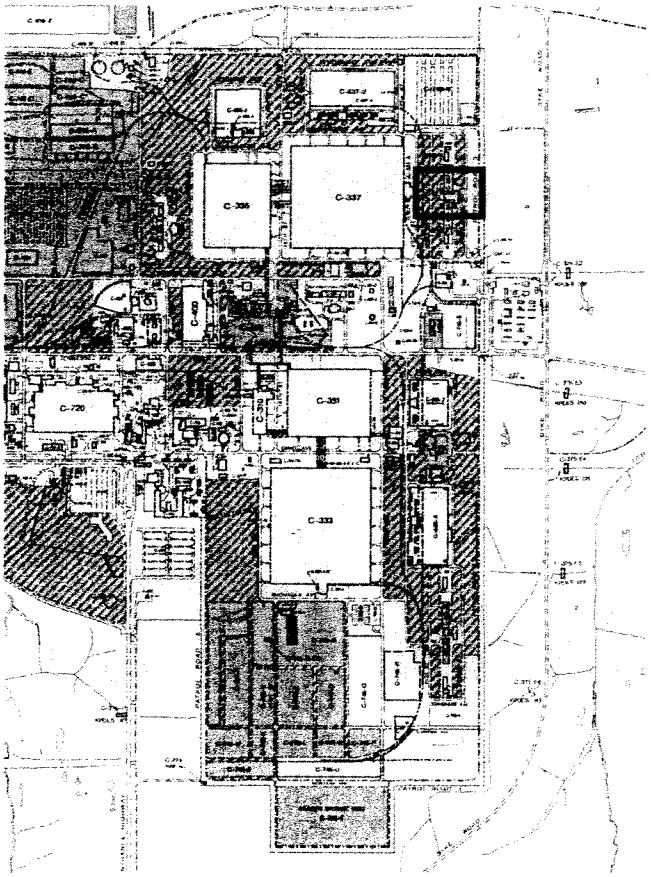
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

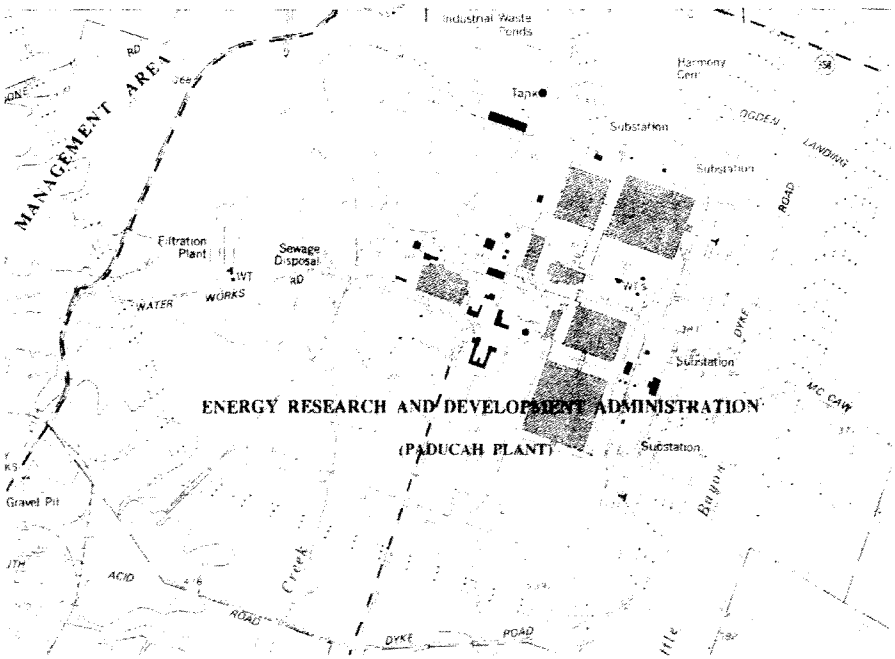
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-637-1 is a two-story steel and concrete pump house built in 1954. The building has a poured concrete foundation, a built-up, flat roof and exterior walls of both concrete and transite panels. On the main (west) façade is a one-story concrete block wing. This wing has a garage bay with paired solid steel doors. A raised loading dock has original, paired, two-light, steel and glass doors. The pedestrian entrance on this façade has ca. 1990, solid steel door. This façade also has a recessed loading dock bay with a single-light, steel and glass door. The main façade of the two-story section has a continuous row of eleven three-light, steel and glass awning windows. On the south façade of the two-story section are rows of seventeen, three-light, steel and glass windows on both floors. Attached at the rear is a one-story concrete wing with two, steel and glass door son the west façade. On the north façade of the two-story section is a garage bay entrance with an overhead steel track door. This façade has fifteen, three-light windows on the first floor and seventeen on the second floor. The east façade has a concrete wall containing electrical transformers.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-223
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-2A Cooling Tower (South)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 22100 ft²
Height _____ Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels and open wood panels original
Q / fiberglass panels and open wood panels replacement

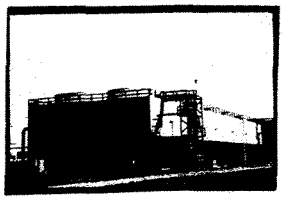
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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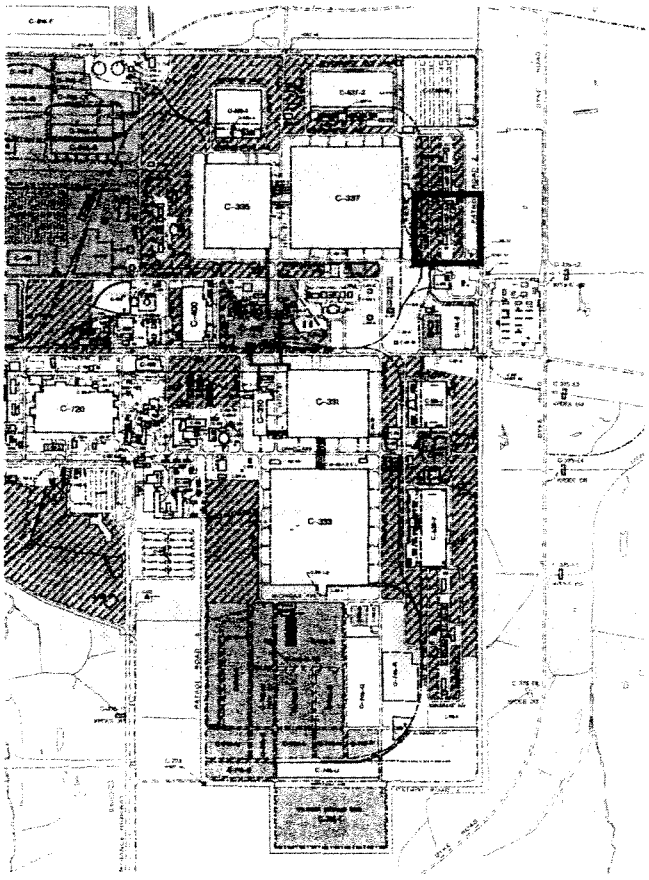
7-12-12

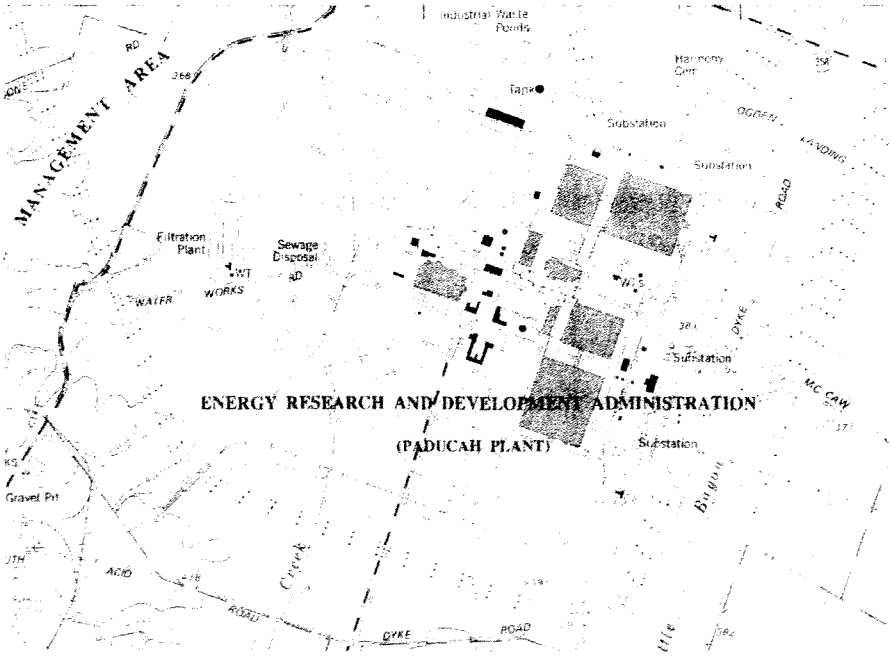
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH 7/12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels** & **Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

This structure (C-637-2A) was built in 1954 and is of steel frame construction and supports twelve steel cooling towers. It has a poured concrete foundation, a built-up, flat roof and exterior siding of fiberglass panels. The east and west facades have lower sections of rectangular open wood panels. On the east façade are two attached exterior wall wood staircases. On the west façade are six, large pipes which connect the towers with the pumping system. To the west of the structure are two concrete block mechanical buildings with built-up, flat roofs and ca. 1980, vertical board wood doors. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY ____
RESOURCE # MCN-224
RELATED GROUP # ____
EVALUATION ____
SHPO EVALUATION ____
DESTROYED ____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-2B Cooling Tower (North)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 22011 ft²
Height _____ Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / fiberglass panels and open wood panels original
Q / fiberglass panels and open wood panels replacement

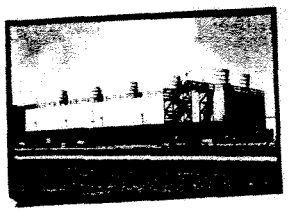
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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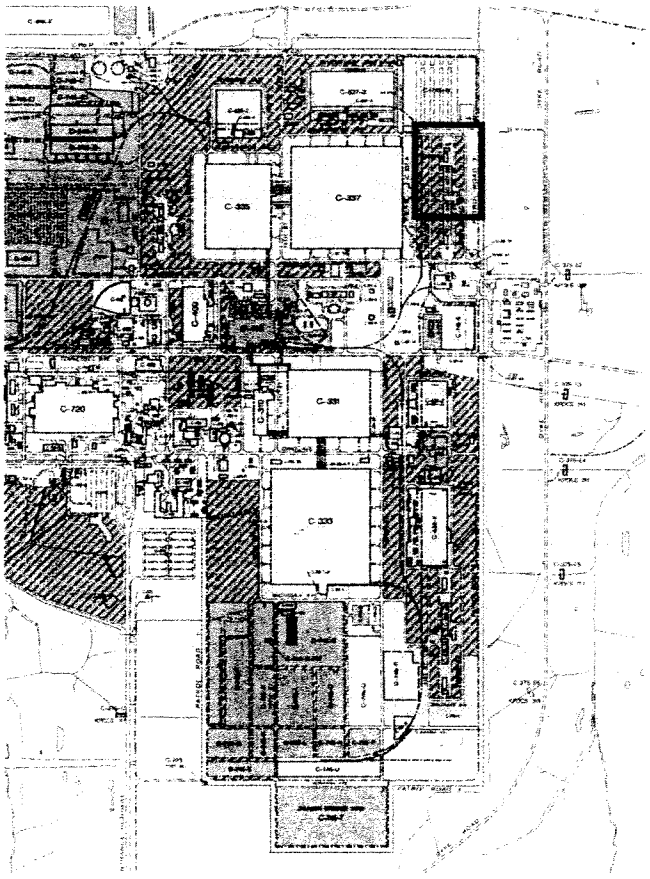
7-12-12

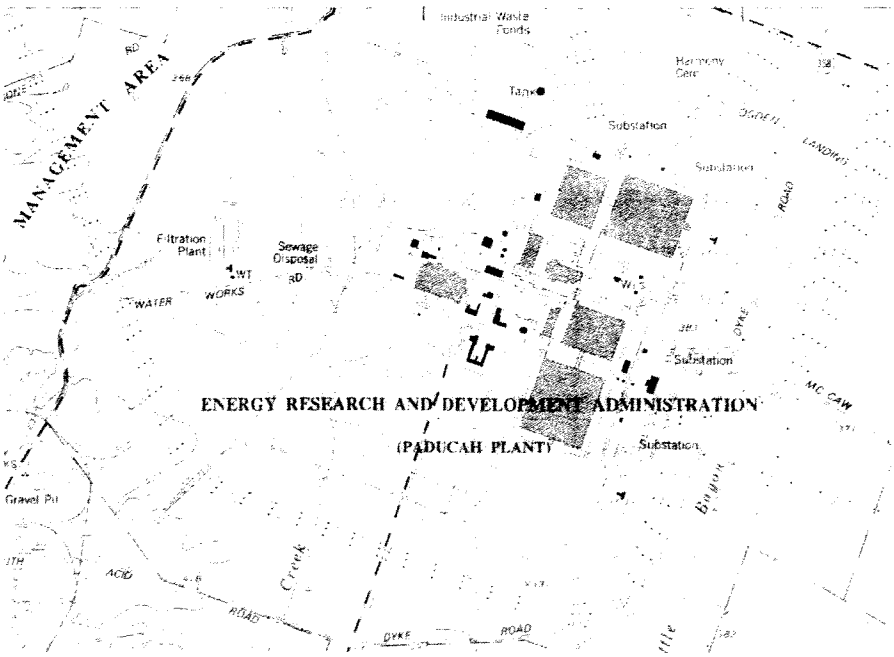
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

This structure (C-637-2B) was built in 1954 and is of steel frame construction and supports twelve steel cooling towers. It has a poured concrete foundation, a built-up, flat roof and exterior siding of fiberglass panels. The east and west facades have lower sections of rectangular open wood panels. On the east façade are two attached exterior wall wood staircases. On the west façade are six, large pipes which connect the towers with the pumping system. To the west of the structure are two concrete block mechanical buildings with built-up, flat roofs and ca. 1980, vertical board wood doors. The cooling tower contains a concrete-lined basin for water collection of the water that has flowed over the tower for cooling.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-225
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-3 Blending Pump House

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 2 / 1982 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 2048 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

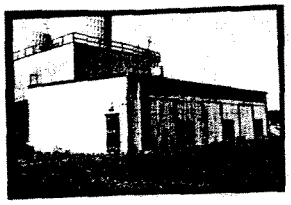
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	6 / built-up	original
P / shed	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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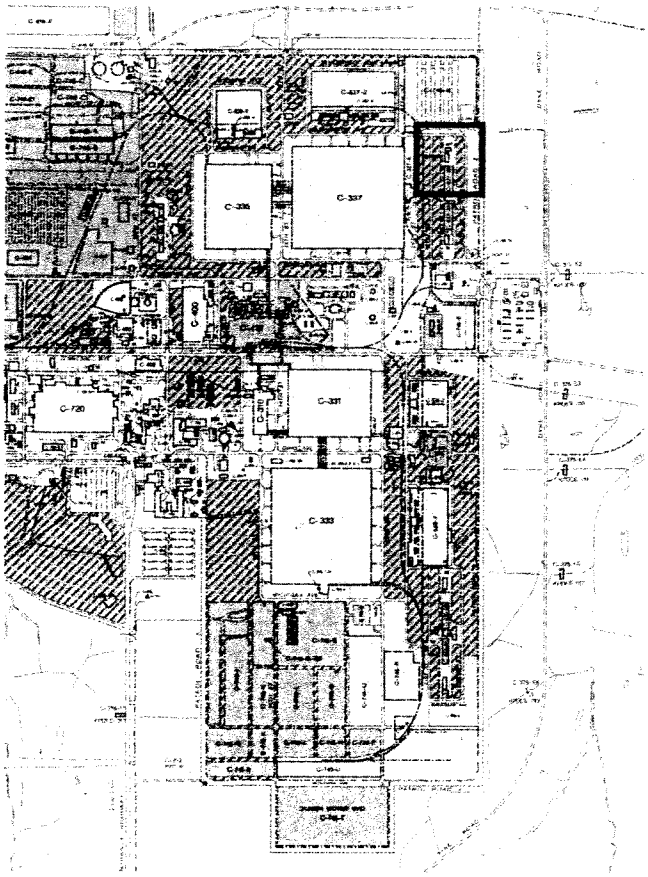
7-12-12

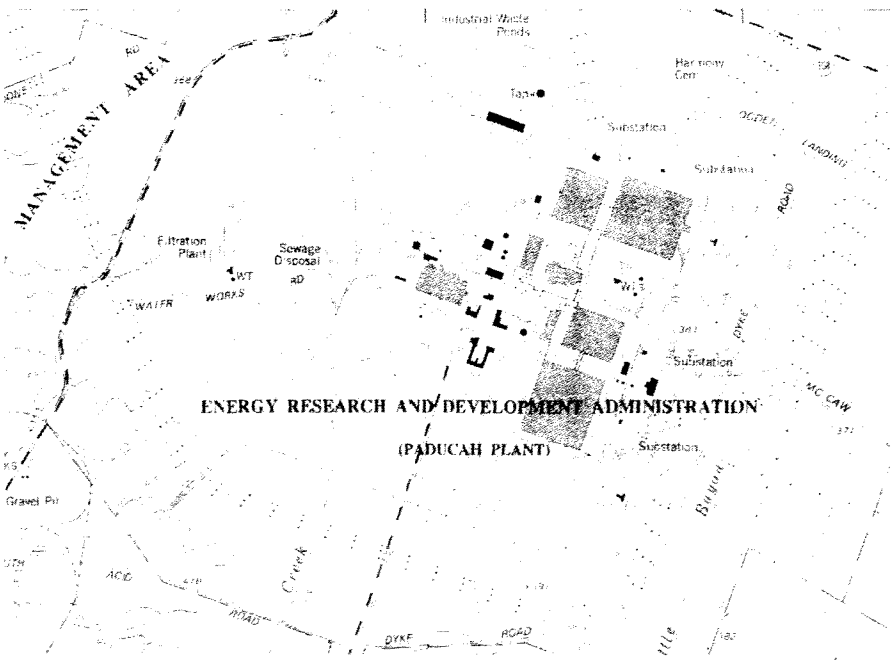
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Building C-637-3 is a one-story, steel pump house built in 1982 with a built-up, shed roof, exterior walls of transite panels and a poured concrete foundation. On the main (west) façade is a vertical board wood door. On the north façade are three, louvered, steel vents. On the east façade is a vertical board wood door. There is no fenestration on the south façade except for two large pipes.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-226
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-4 Blending Cooling Tower (North)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey
_____ KY Land
_____ NR
_____ HABS/HAER
_____ Local Land
_____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 3528 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels and fiberglass original
Q / transite panels and fiberglass replacement

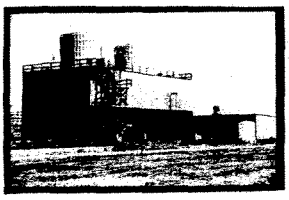
21. ROOF CONFIGURATION/COVERING:

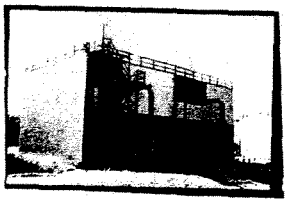
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

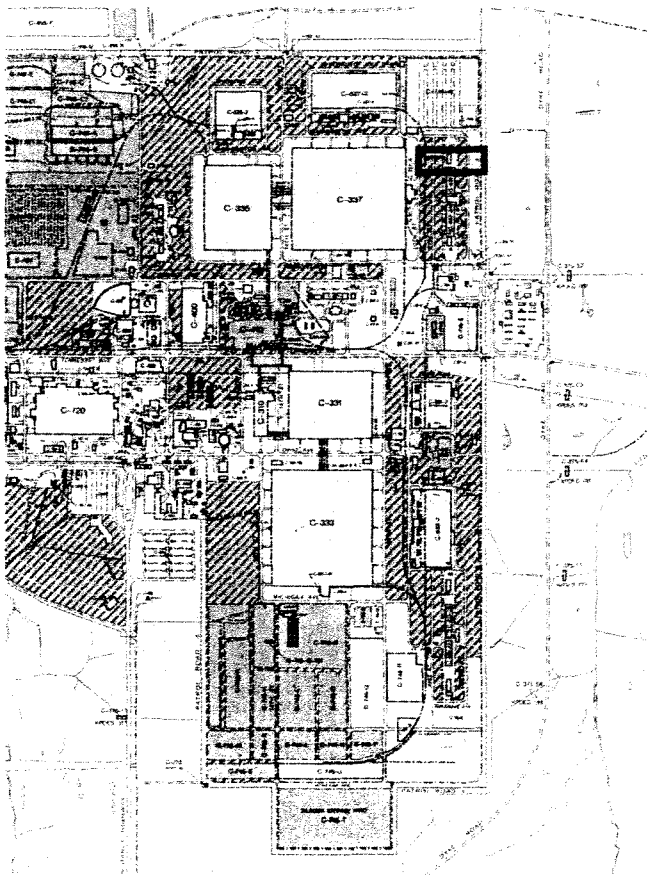
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)

~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Built in 1954, C-637-4 is a two-story structure of steel frame which supports two steel cooling towers. It has a poured concrete foundation, a built-up, flat roof and exterior panels of transite and fiberglass. On the east and west facades are lower sections of open rectangular panels. Attached to both the east and west facades are exterior wall wood staircases. On the west façade are two, large pipes which connect the towers with the pumping system. The towers are of steel construction and have recessed rectangular panels. To the west of the structure is a rectangular plan, concrete block mechanical building with a built-up flat roof and an entrance with a ca. 1980, vertical board wood door.

~~OFFICIAL USE ONLY~~ TR

7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-227
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-5 Blending Cooling Tower (South)

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 3528 ft²
Height 2 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite and fiberglass panels original
Q / transite and fiberglass panels replacement

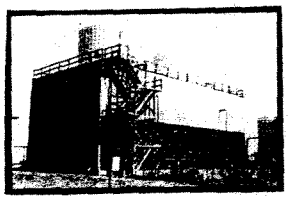
21. ROOF CONFIGURATION/COVERING:

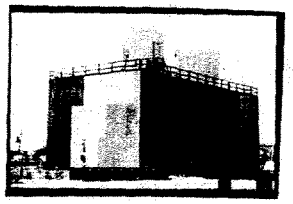
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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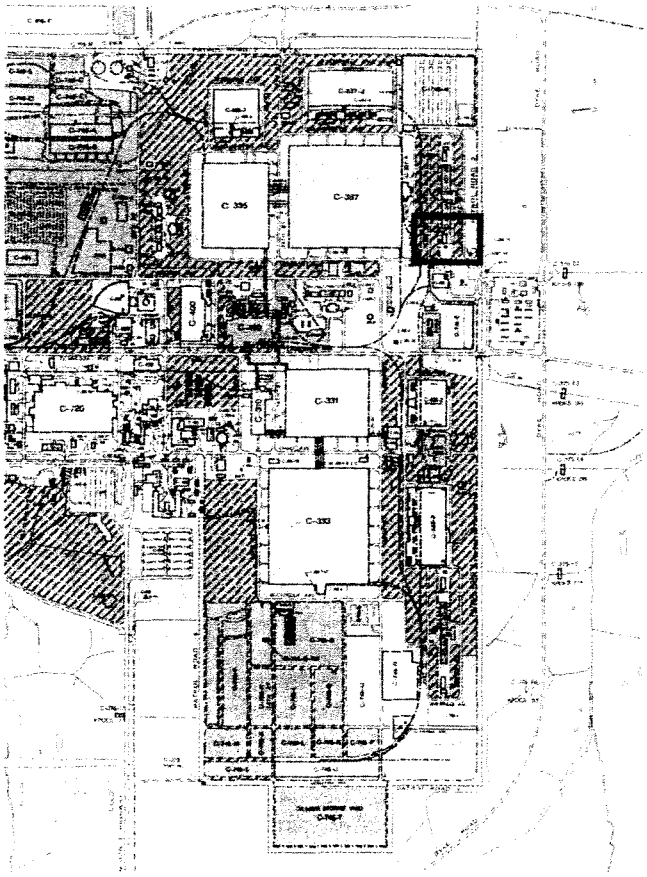
7-12-12

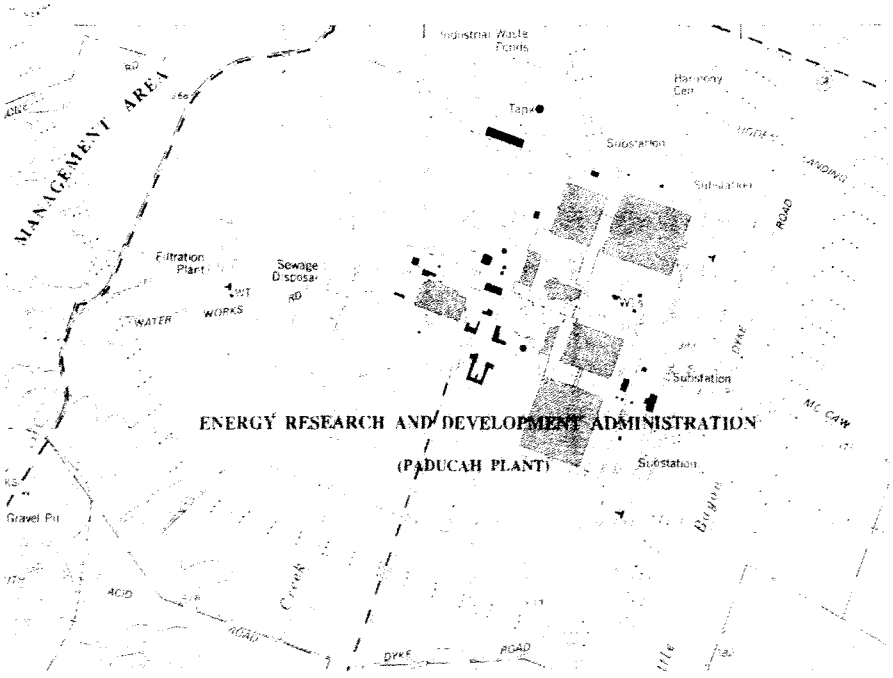
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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TK

7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-228
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-637-6 Sand Filter Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 2 / 1982 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 260 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

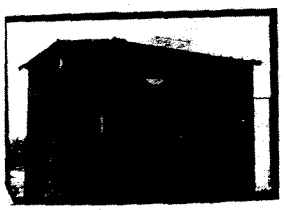
21. ROOF CONFIGURATION/COVERING:

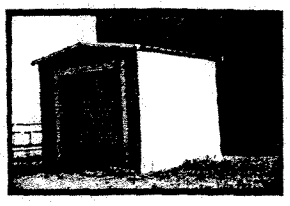
CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	7 / standing metal seam	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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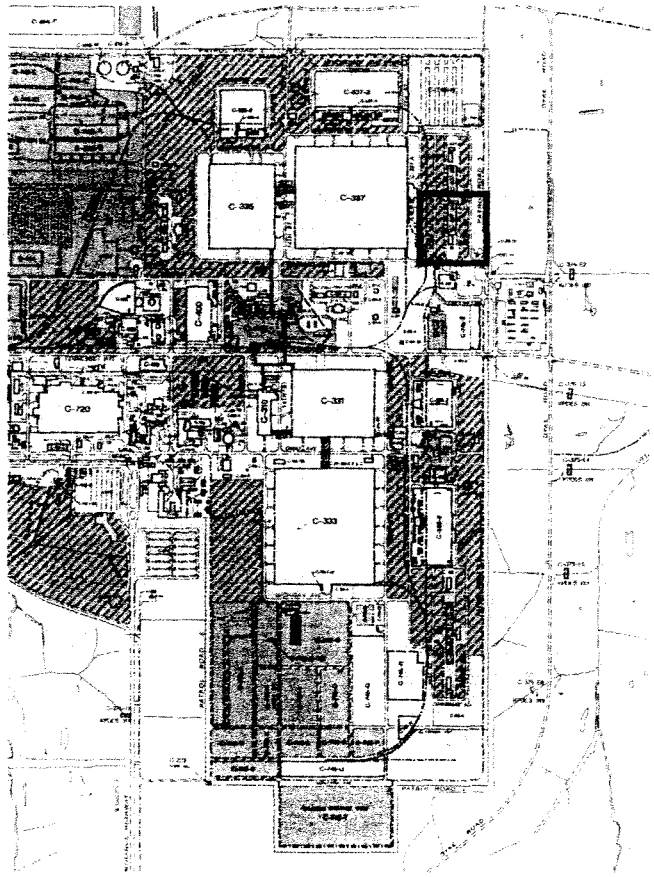
7-12-2

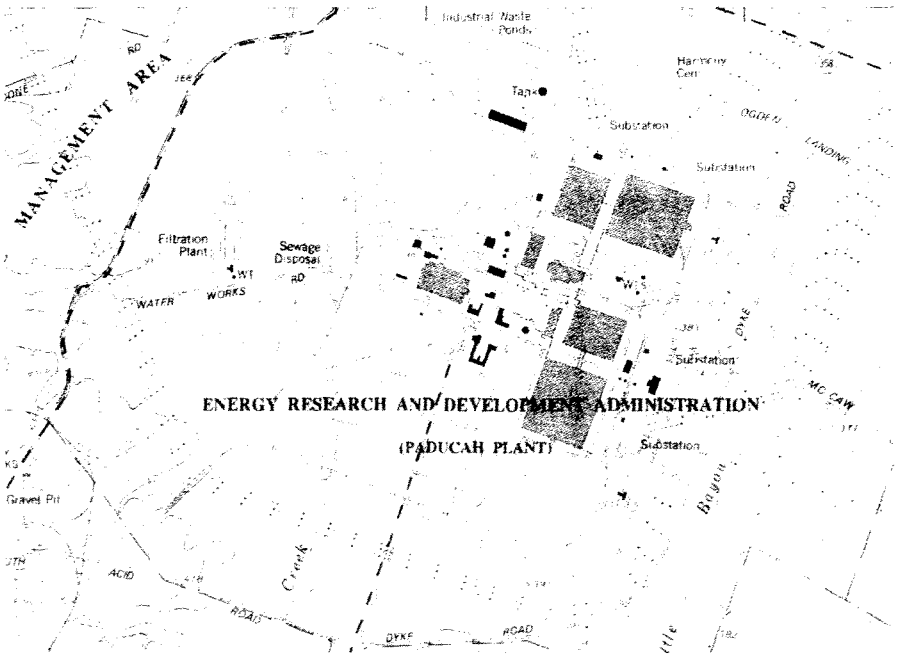
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

C-637-6 is a one-story, pre-fabricated, steel building built in 1982. It has a gable roof of crimped steel panels, exterior walls of steel panels and a poured concrete foundation. On the south façade is a garage bay entrance with an overhead steel track door. On the west façade is a pedestrian entrance with a solid steel door. There is no other fenestration.

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-229
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-709 Plant Laboratory Annex

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 6W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 9 / 8 / 1998 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 13500 ft²
Height _____ Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth concrete original
S / smooth concrete replacement

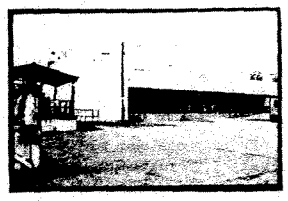
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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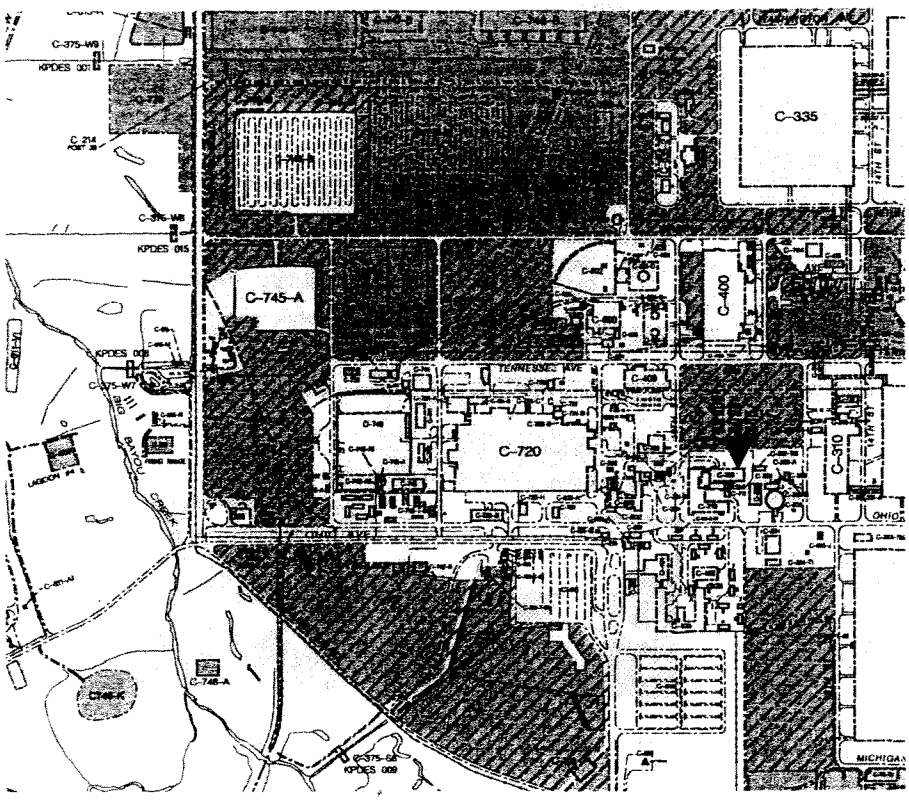
7-12-n

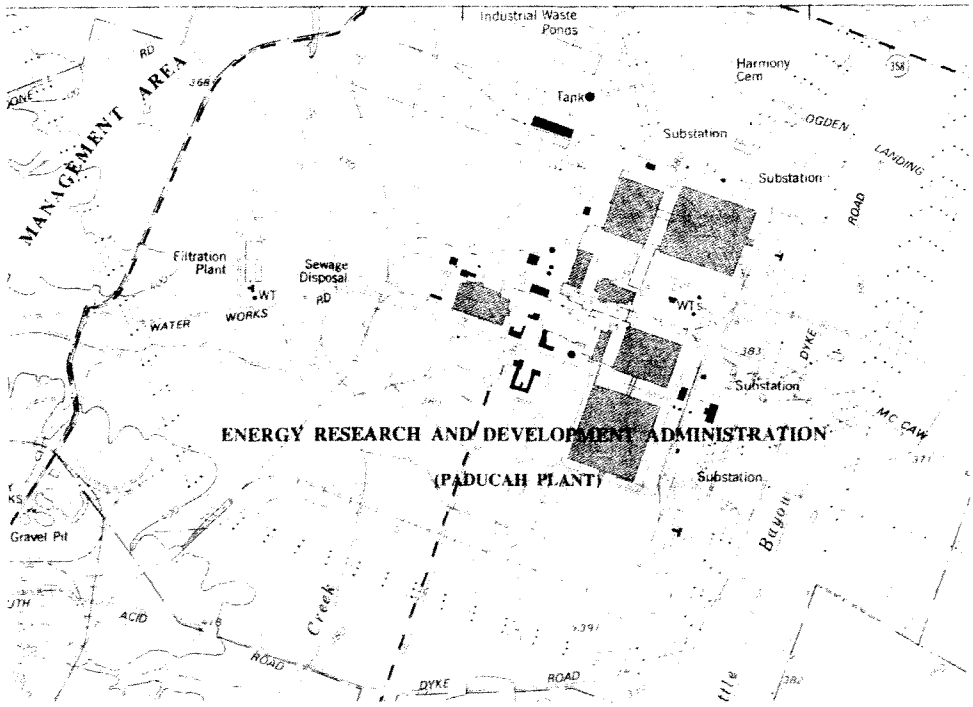
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TR

712-13

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the mair administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training anc Cascade Office (Building C-304) and Building C-212.

On the north façade of the rear ell Of Building C-710 is a ca. 1998, one-story wing which has five windows of fixed, single-light, aluminum design. This wing connects with an enclosed hall that in turn connects with **Building C-709-Plant Laboratory Annex**. On the north façade is an entrance at the northeast corne of the building with a ca. 1990, steel and glass door. Adjacent to the door is a single-light, steel and glass sidelight. Above the door is a four-light, steel and glass window. There are ten window bays on the first floor of the building which are the same design as the rest of the building. On the east façade of the rear wing is a recessed, four bay, loading dock. Leading to this loading dock are four entrances with steel and glass and solid steel doors.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-710 Technical Service Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land __ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: _____/_____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
1 / ca. 1996 wing addition
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / concrete original
P / 0 / concrete subsequent

15. DIMENSIONS: 84333 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / "L" plan first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____; _____/_____ first
____/_____; _____/_____ second
____/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth concrete original
S / smooth concrete replacement

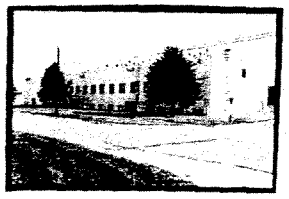
21. ROOF CONFIGURATION/COVERING:

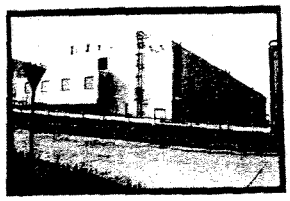
CONFIGURATION	COVERING	
O / flat	6 / built-up	original
O / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

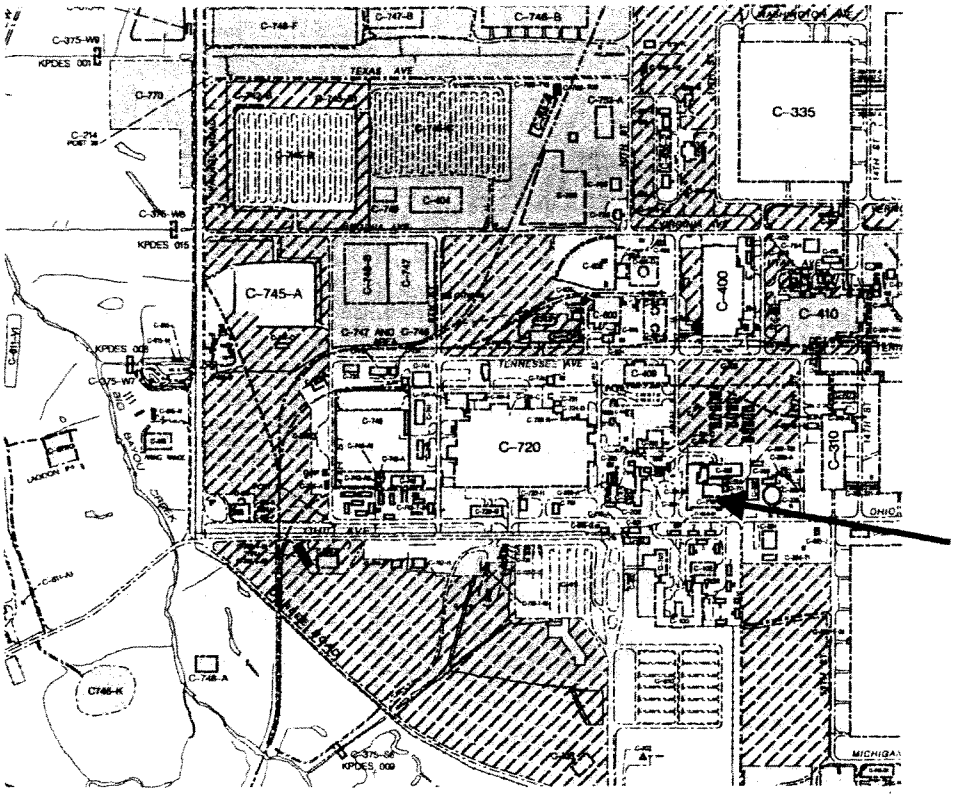
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TK
7-12-k

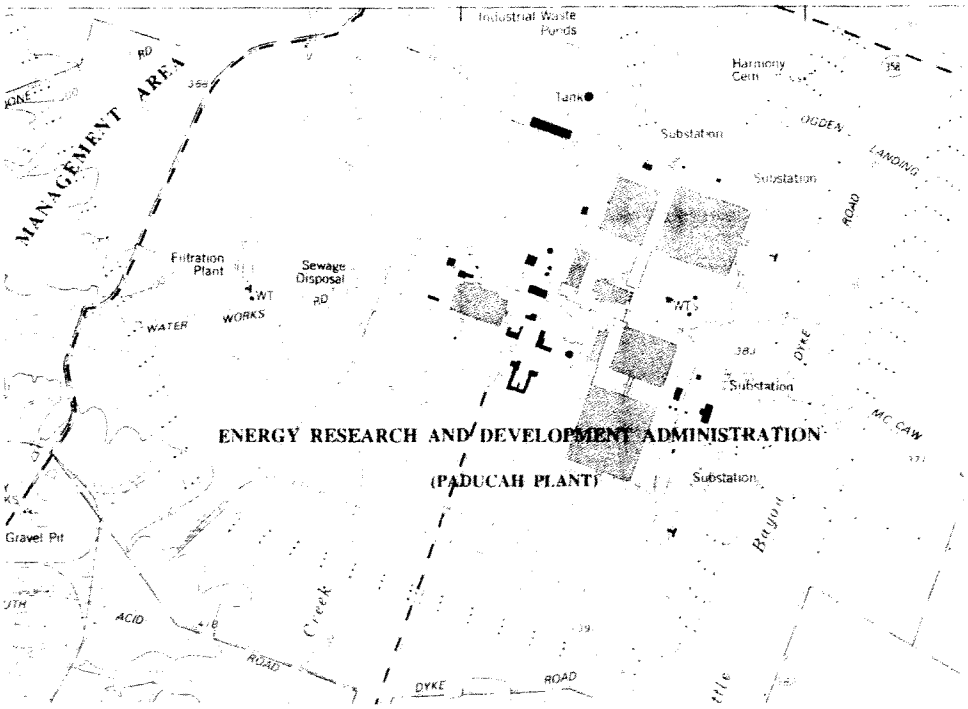
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



COUNTY McCracken

~~OFFICIAL USE ONLY~~ TH 7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was **Giffels and Vallet Inc. of Detroit.** This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are those which contain offices and the administrative functions of the facility. When the PGDP was built in the 1950s the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

The Technical Service Building (C-710) is a one-story, reinforced concrete building built in 1953 and constructed in an "L" plan. The building's main façade facades Ohio Avenue and the rear ell wing faces 10th Street. The building has a full basement, a concrete foundation, a built-up roof and an exterior of smooth concrete. The main (south) façade has an entrance bay with a single-light, steel and glass door. Flanking the door is a single-light, steel sidelight. There are sixteen window bays on the main façade. Each bay contains a single-light, fixed steel and glass window on both the basement and first floor levels. The exterior walls are undecorated except for rectangular scoring of the concrete above, below and between the windows. At the roofline is a flat parapet wall with meta coping.

Above the main entrance is a large, fixed, six-light, steel and glass window panel. Adjacent to the main entrance is a projecting wing. On the east façade of this wing is an original, single-light, steel and glass door. On the west façade of this bay is an entrance with original double doors of single-light, stele and glass design. Above these doors is a four-light, steel and glass, fixed window. On the west façade are twenty window bays on the first story and sixteen window bays in the basement level. Each window is of single-light, fixed, steel and glass design. At the northwest corner of the building on the west façade is an entrance with a ca. 1990, single-light, steel and glass door. Adjacent to the door is a single-light sidelight. Above the entrance is a steel awning and a six-light, fixed steel and glass window.

On the north façade of the rear ell is a ca. 1996, one-story wing which has five windows of fixed, single-light, aluminum design. This wing connects with an enclosed hall that in turn connects with **Building C-709-Plant Laboratory Annex.**

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-231
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-710-A Gas Cylinder Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 400 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / smooth poured concrete-open bay original
S / smooth poured concrete-open bay replacement

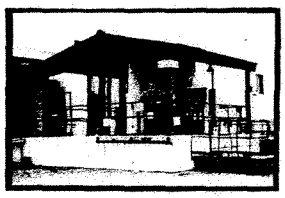
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
A	/ gable	7	/ metal	original
A	/ gable	7	/ metal	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / ____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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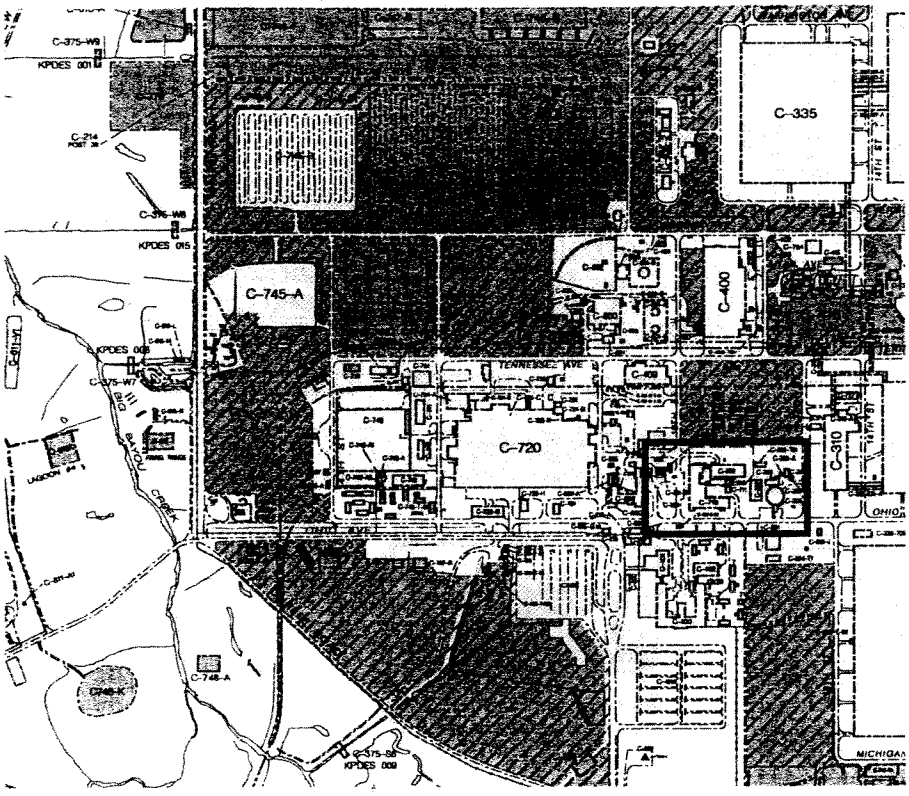
7-12-M

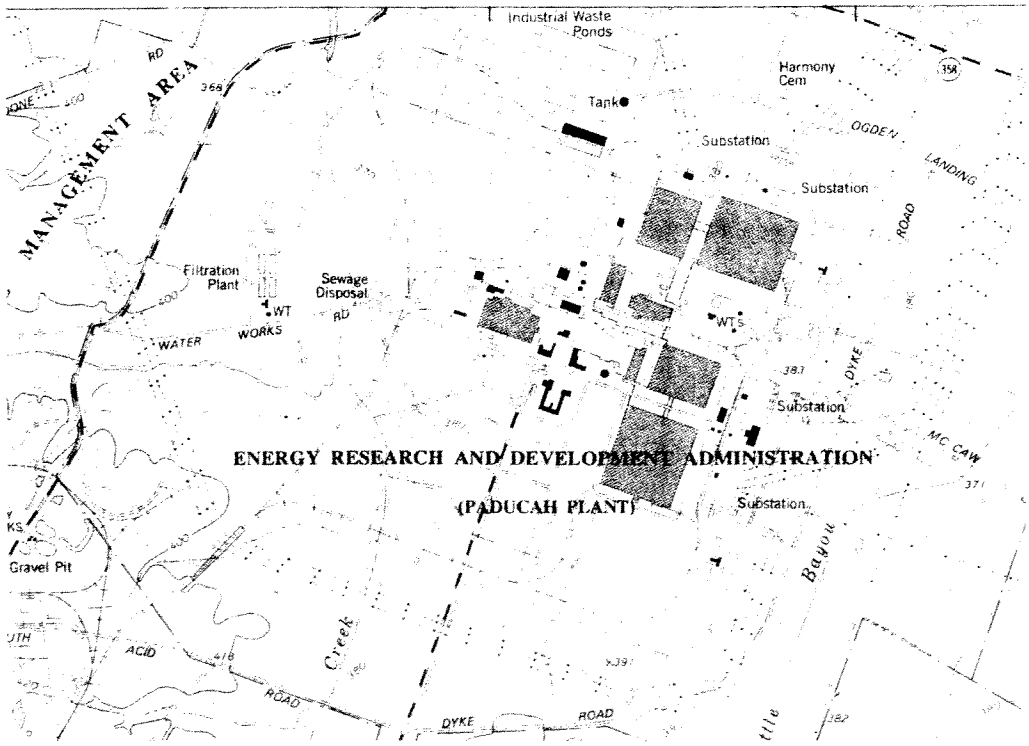
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

712-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 an was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office an residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains i business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteri and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large an small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-710-A is a one-story open-air structure used as a gas cylinder storage facility, adjacent to Building C-710. Built in 1953, the structure has a poure concrete raised foundation and a gable roof of transite supported by steel posts. The structure has two storage platforms divided by a central concrete wall.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-232
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-711 Gas Manifold

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 3 / 1953 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 0 / concrete and steel original
P / 0 / concrete and steel subsequent

15. DIMENSIONS: 962 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
S / poured concrete replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	8 / transite	original
A / side gable	8 / transite	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

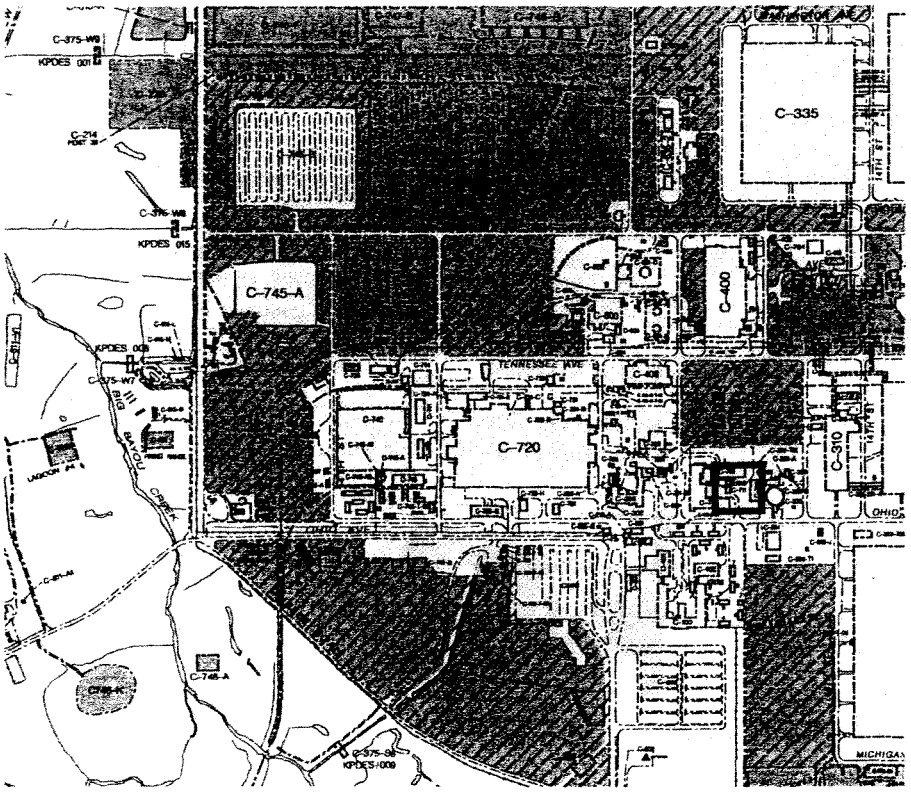
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-K

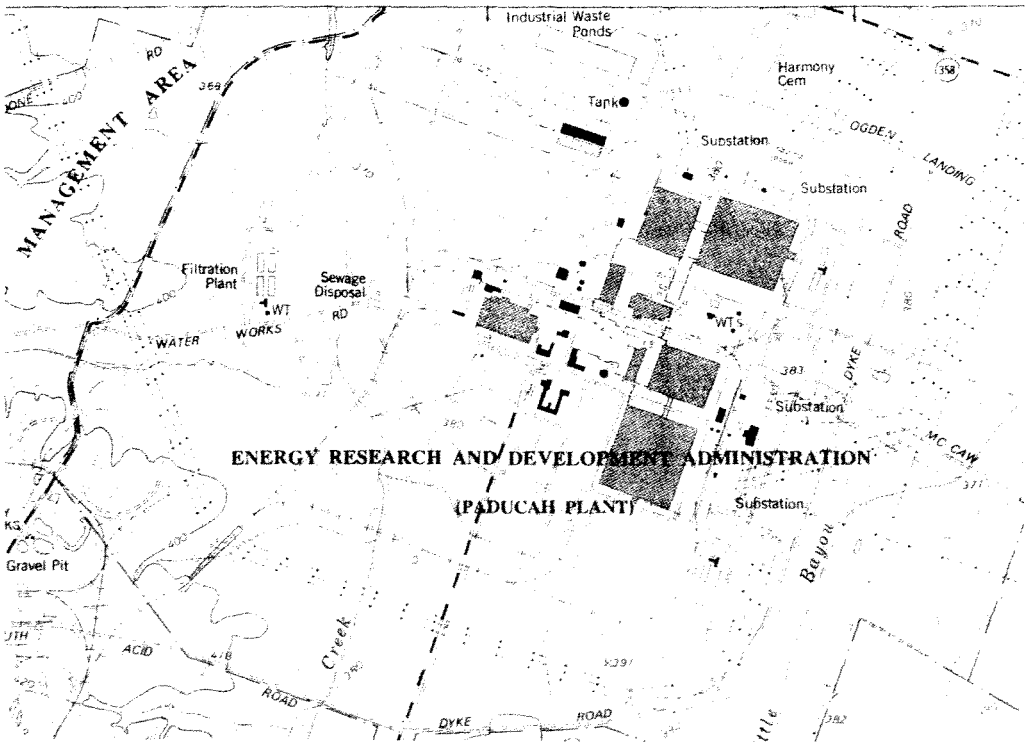
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erecti of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge a Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the seco phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complet in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atom Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at th Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 an was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office an residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteri and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large an small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-711 is a one-story, open-air structure used a gas manifold facility. Built in 1953, the structure has a poured concrete raised foundation and a gable roof transite supported by steel posts. The structure has two storage platforms divided by a central concrete wall.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-234
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /
Paducah Gaseous Diffusion Plant- Building No. C-720- Maintenance and Stores Building & C-720-E Change House Addition & C-720-K Instrument Shop Addition

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 299944 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S/Q/ smooth poured concrete and steel original
S/Q/ smooth poured concrete and steel and transite panels replacement

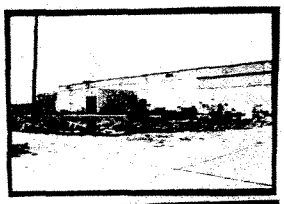
21. ROOF CONFIGURATION/COVERING:

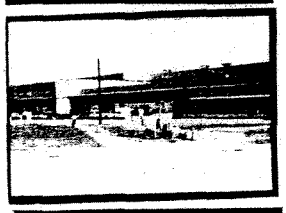
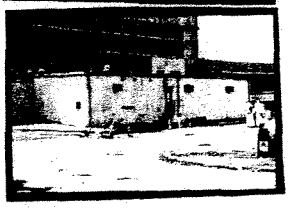
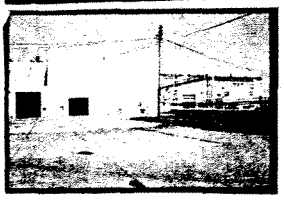
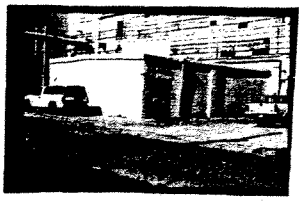
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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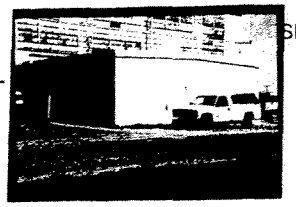

(SEE CONTINUATION PAGE)*

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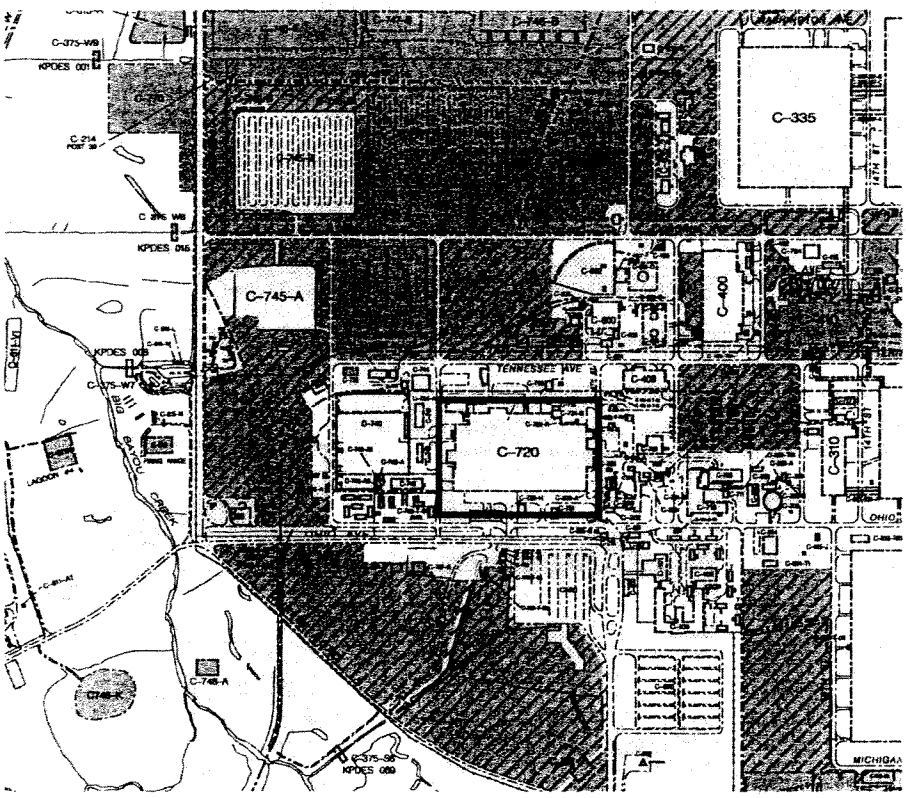
7-12-12

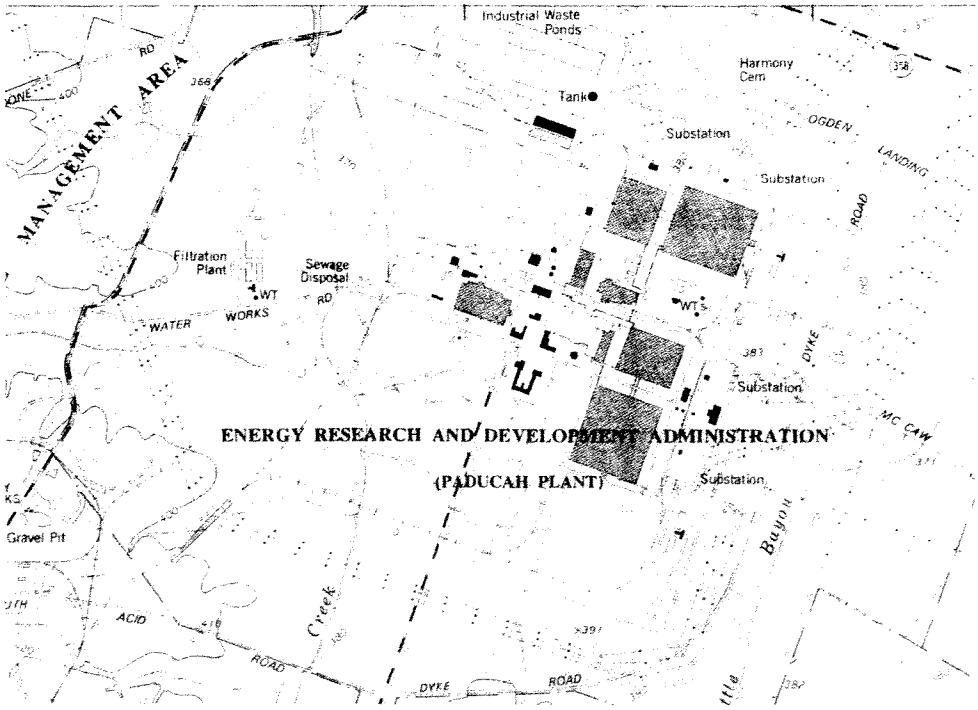
25. SUPPORT RESOURCES:

SITE PLAN KEY	FUNCTION	CONSTRUCTION DATE	METHODMATERIAL
Building C-720-E	Change House Addition	1952	concrete block
Building C-720-K 1520 ft^2	Instrument Shop Addition	1979	concrete block

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



7-12-12

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C-720 is a one-story, steel and concrete building constructed in 1952. The building has a flat roof of gravel and tar and exterior walls of concrete and steel. The building's south wing is lower than the main section of the building which contains a mezzanine level. The west façade of the south wing has an exterior of transite panels and multi-light steel and glass windows. Across the width of the façade is a concrete loading dock and a metal, flat roof canopy. The west façade of the main section has a pedestrian entrance and two garage bays. The pedestrian entrance has an original two-light steel and glass door. The garage bays are set within concrete surrounds and have steel roll-up doors. This façade has concrete walls extending approximately seven feet in height with window walls and transite panels above. The windows are ten-light and fifteen-light steel and glass design. The ten-light window panels are fixed while the fifteen-light windows have hinged six-light panels. Four banks of windows extend across the width of the building separated by steel belt courses. On the west façade is a one-story concrete block wing **(C-720-E)** which has a flat roof of gravel and tar and a pedestrian entrance on the north façade. Just west of the west façade is **Building 720-D,** a pre-fabricated metal transformer building erected ca. 1975. This building has a concrete foundation and exterior walls and roof of steel panels. On the south façade is an entrance with a solid steel door.

The north façade of the building has a garage bay with a roll-up steel door at the northwest corner. The upper façade windows are similar to the west façade. This façade has large paint shop wing **(C-720-C-1)** added in 1976. This wing has a garage bay on the west facade with a roll-up steel door. The walls of this wing are of corrugated steel panels. The north façade of Building C-720 consists of three, overhead roll-up steel doors and four pedestrian doors of steel and glass design.

The east façade has an original projecting wing that has an exterior solid wall of transite panels. This wing has a garage bay with an overhead steel door and two pedestrian entrances with two-light steel and glass doors. Attached to the south façade is a garage bay with a garage entrance with a roll-up door and a steel and glass pedestrian entrance. This bay has a flat roof and walls of steel panels.

The south façade of the building has a full-with concrete loading dock. Above this loading dock is a steel flat roof canopy. This façade has a partial-height concrete wall above which is a window wall with ten-light and fifteen-light steel and glass windows. The windows are divided by steel mullions. This façade has five garage bays with overhead steel doors and five pedestrian entrances with steel and glass doors. Above the canopy are transite panels.

Building C-720's east facade consists of a concrete first story and window walls above and transite panels similar to other facades. On the east façade are two garage bays with overhead steel doors. Pedestrian entrances on these facades are single-light, steel and glass design. Attached to the east façade is Building C-720-K, an Instrument Shop Addition. This wing is of concrete block construction and built in 1979. On the north façade of this wing is an entrance with paired, three-light steel and glass doors. There is no fenestration on the east and south facades of this wing.

On the west façade of Building C-720 is a one-story concrete block wing **(C-720-E)** which has a flat roof of gravel and tar and a pedestrian entrance on the north façade.

Attached to the east façade of Building C-720 is Building C-720-K, an Instrument Shop Addition. This wing is of concrete block construction and built in 1979. On the north façade of this wing is an entrance with paired, three-light steel and glass doors. There is no fenestration on the east and south facades of this wing.

~~OFFICIAL USE ONLY~~

7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-235
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-720-G 90 Day Mixed Waste Accumulation Bldg.

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 6 / 1976 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/ _____
_____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 10800 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____: _____/ _____ first
____/ _____: _____/ _____ second
____/ _____: _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
U / corrugated metal panels original
U / corrugated metal panels replacement

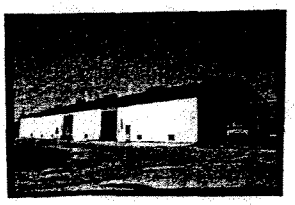
21. ROOF CONFIGURATION/COVERING:

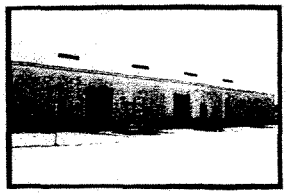
CONFIGURATION	COVERING	
A / side gable	7 / metal	original
A / side gable	7 / metal	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____/ _____/ _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications

(SEE CONTINUATION PAGE)

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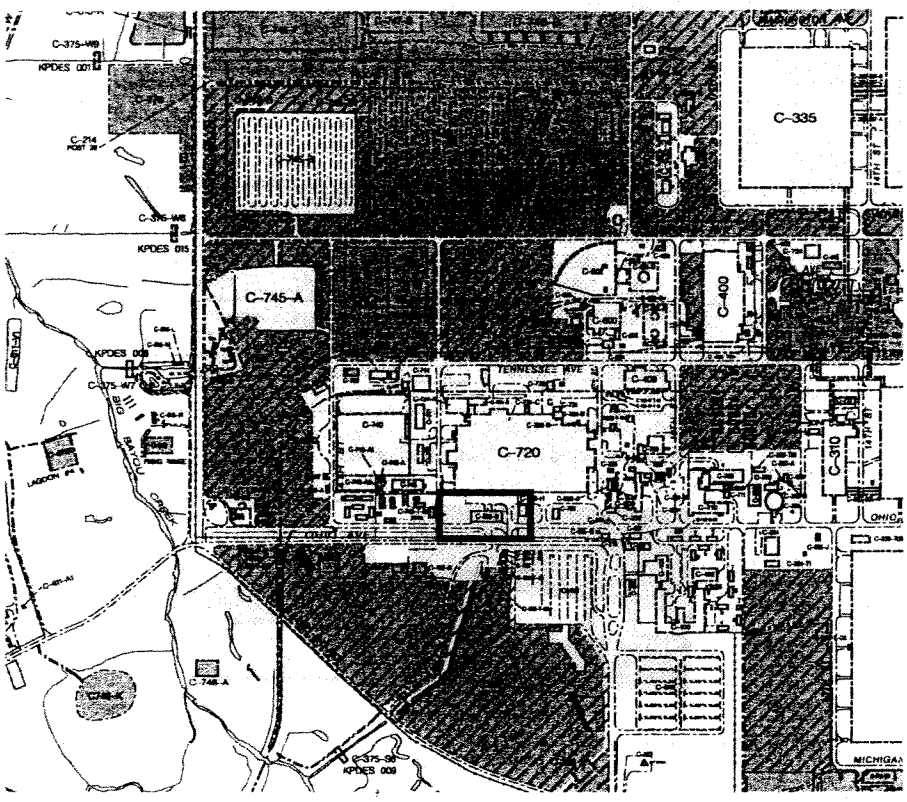
7-12-12

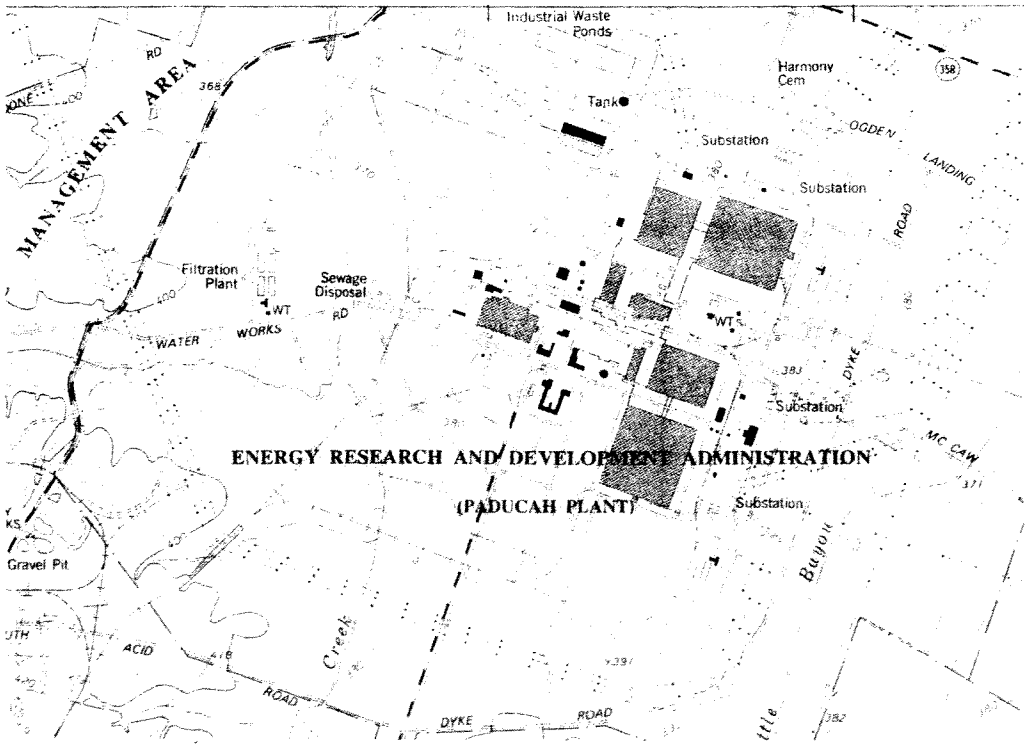
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-720-G is a one-story steel, rectangular-plan building erected in 1976. The building has a poured-concrete foundation and a gable roof and exterior walls of steel panels. On the north façade are two garage bays with steel roll-up doors and two pedestrian entrances with single-light steel and glass doors. On the east façade is a pedestrian entrance with a solid-steel door. On the south façade are two garage and pedestrian entrances similar to those on the north façade. On the west façade is a steel and glass, single-light door.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

RESOURCE # MCN-236
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-720-H Warehouse

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 8 / 1978 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 2400 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____ / _____ first
____ / _____ second
____ / _____ third

17. STYLISTIC INFLUENCE:
____ / _____ : _____ / _____ first
____ / _____ : _____ / _____ second
____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / metal panels original
Q / metal panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	7 / standing metal seam	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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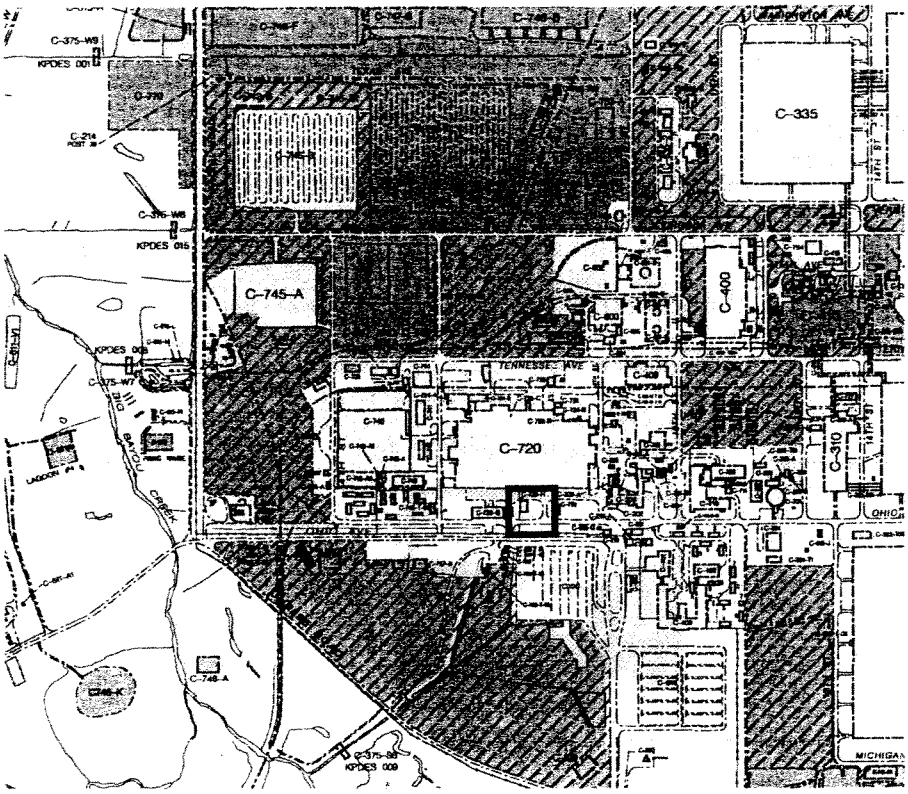
7/12/12

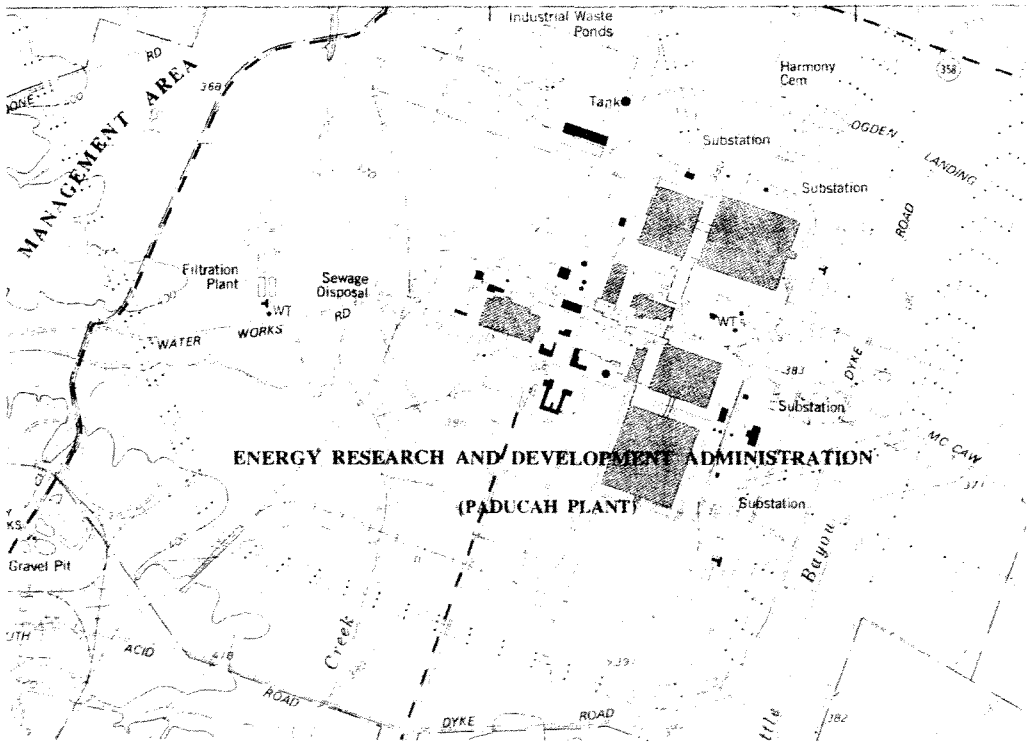
25. SUPPORT RESOURCES: SITE PLAN KEY . FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-720-H is a one-story prefabricated steel building that was erected in 1978. The building has a poured-concrete foundation and roof and exterior walls of steel panels. On the main (north) façade is a garage-bay entrance with an overhead steel door. Flanking this bay is a pedestrian entrance with a single-light steel and glass door. On the east façade is also a similar garage bay and pedestrian door. There is no fenestration on the west and south façades.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-237
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-721 Gas Manifold Storage

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 962 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

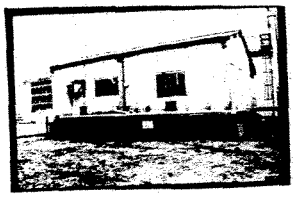
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	8 / transite panels	original
A / side gable	8 / transite panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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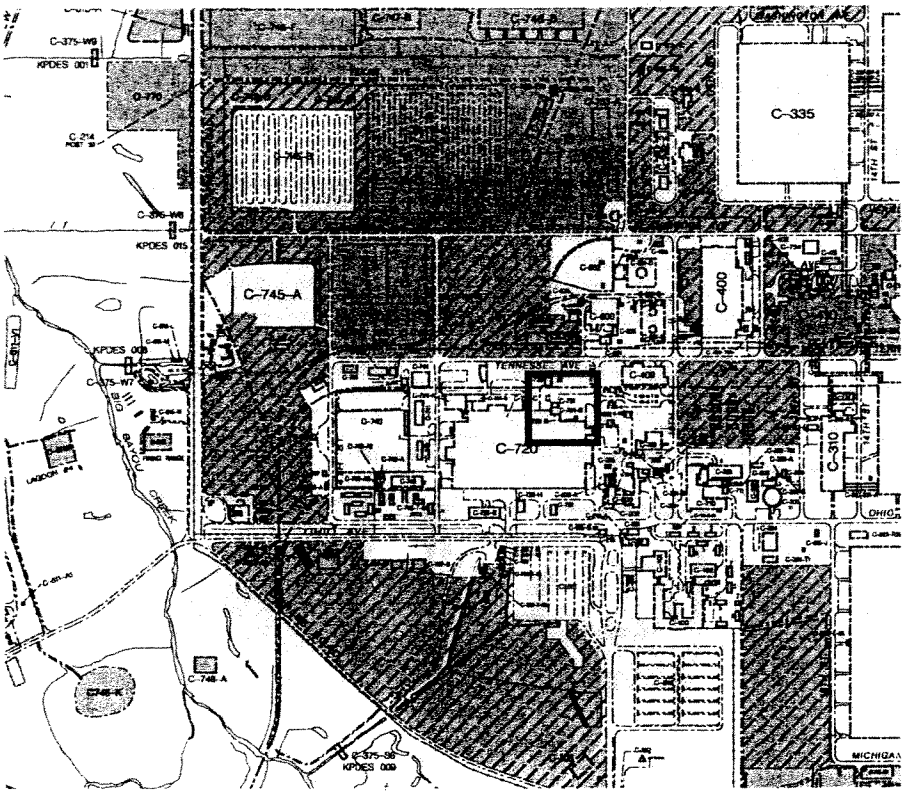
7-12-12

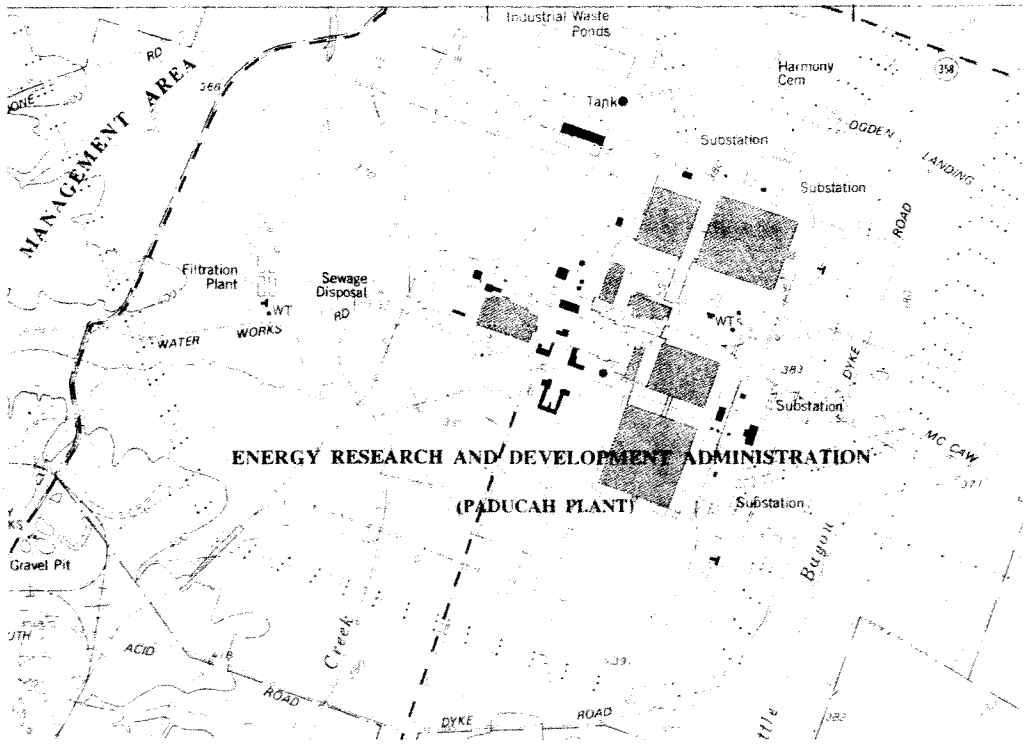
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-721 is a one-story, steel building with a concrete foundation and a gable roof of transite panels. Built in 1952, the building has exterior walls of transite. On the main (South) façade is a concrete porch with a shed roof. This façade has two entrances: the west entrance has solid steel double doors and the east entrance has a two-light glass and steel door. This façade also has eight-light steel and glass windows. On the east façade is a ca. 1980 entrance with double steel doors.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-238
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-724-A Carpenter Shop Annex

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

THER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
2 / concrete block wing addition
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS: 3900 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

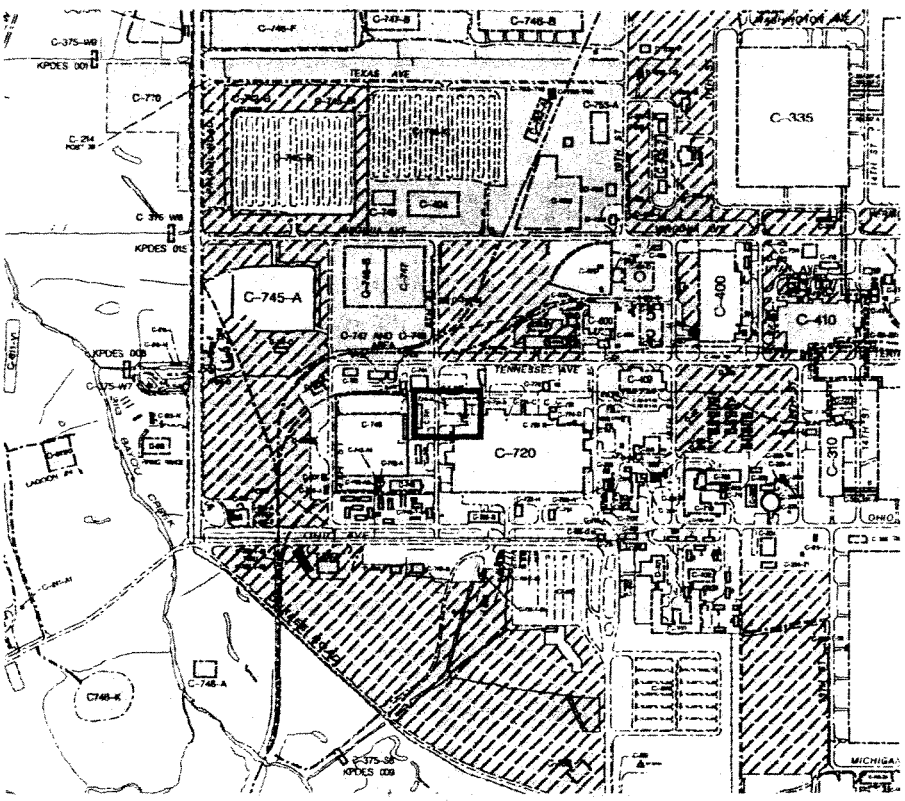
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

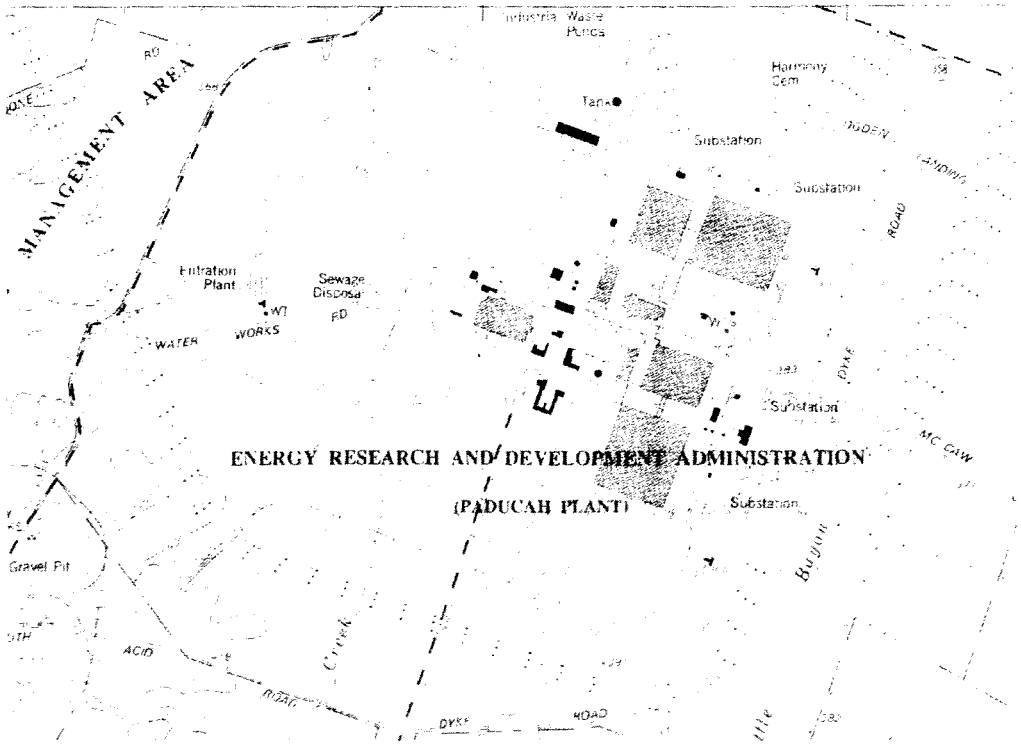
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-724-A is a one-story, concrete block building built in 1956. The building has a poured concrete foundation, a flat roof of gravel and tar and an exterior of concrete block. On the south façade is a pedestrian entrance and garage bay. The pedestrian entrance has a single-light steel and glass door. The garage bay has a roll-up steel door and a pedestrian door of single-light steel and glass design and a fixed-single light window. The north façade has five bays of fifteen-light steel and glass windows grouped in sections of three.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-239
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-724-B Carpenter Shop

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

° INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 10215 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___ / _____ first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ : _____ / _____ first
___ / _____ : _____ / _____ second
___ / _____ : _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
U / crimped metal panels original
U / crimped metal panels replacement

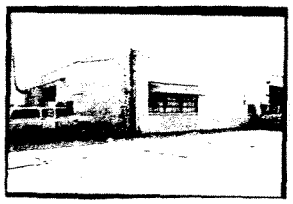
21. ROOF CONFIGURATION/COVERING:

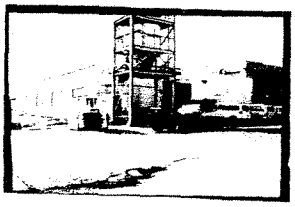
CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	7 / standing metal seam	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

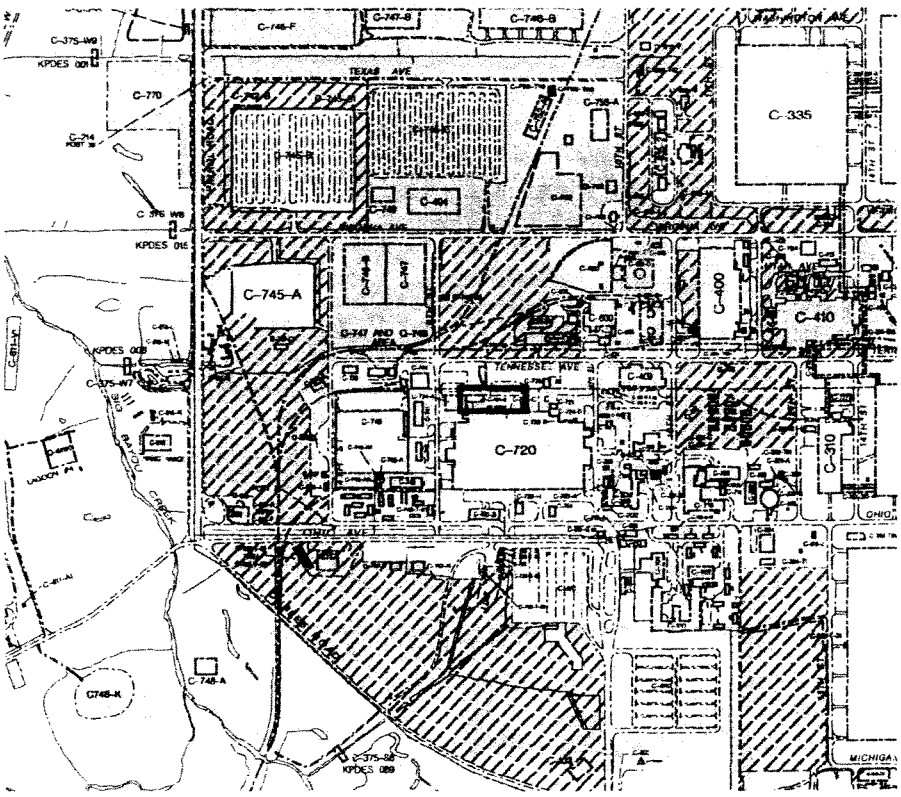
(SEE CONTINUATION PAGE)

OFFICIAL USE ONLY TH 7-12-12

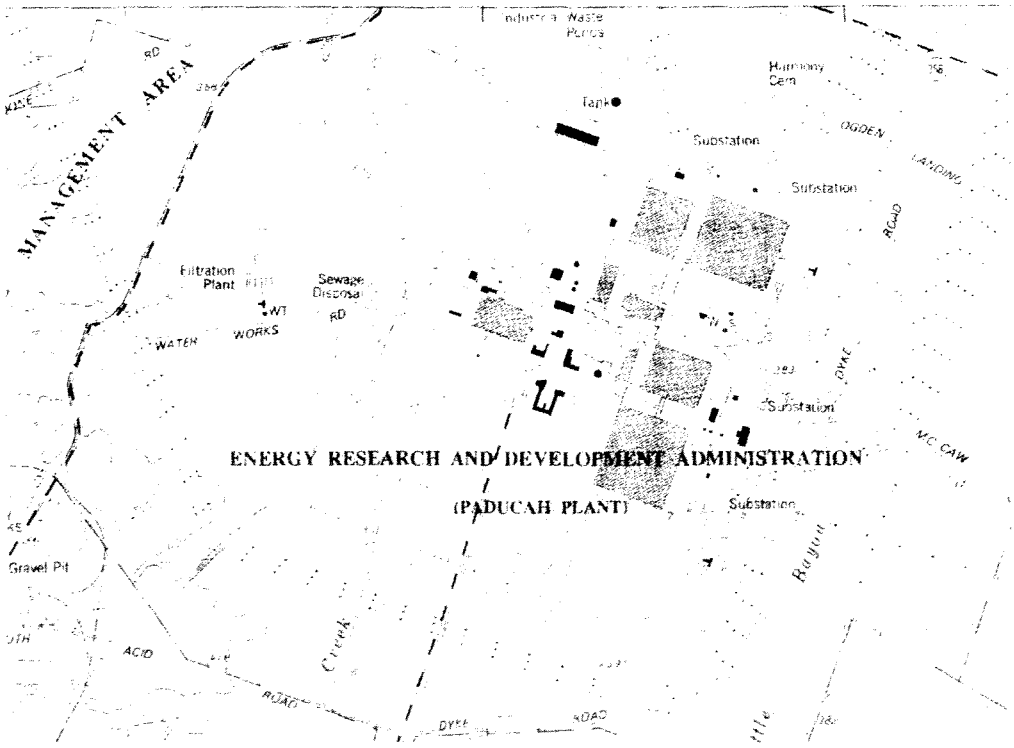
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Attached on the east facade of Building C-724-A is Building C-724-B, a one-story steel building built in 1954. This building has a concrete foundation and gable roof and walls of crimped steel panels. Windows are original six-light hinged design. At the northeast corner of the north bay are paired solid steel doors. On the east façade is a garage bay entrance with a roll-up steel door. The south facade of the building also has original six-light steel windows.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual

COUNTY McCracken
RESOURCE # MCN-240
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-724-C Paint Shop

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 1600 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___/_____ first
___/_____ second
___/_____ third

17. STYLISTIC INFLUENCE:
___/_____; _____/_____ first
___/_____; _____/_____ second
___/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

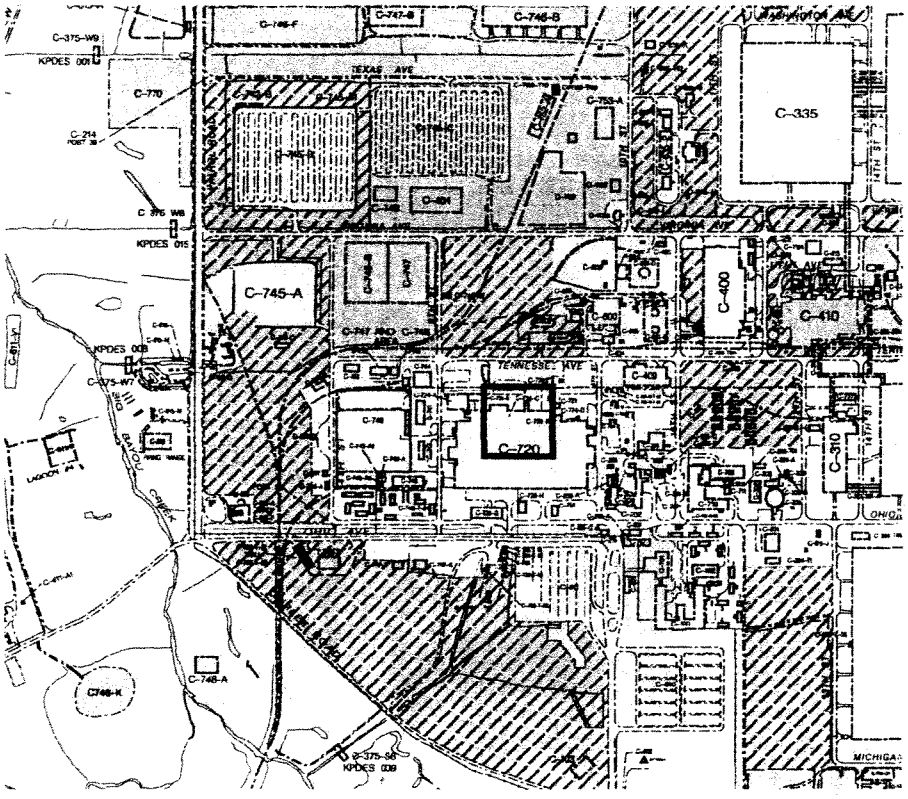
(SEE CONTINUATION PAGE)

OFFICIAL USE ONLY TH
7-12-2

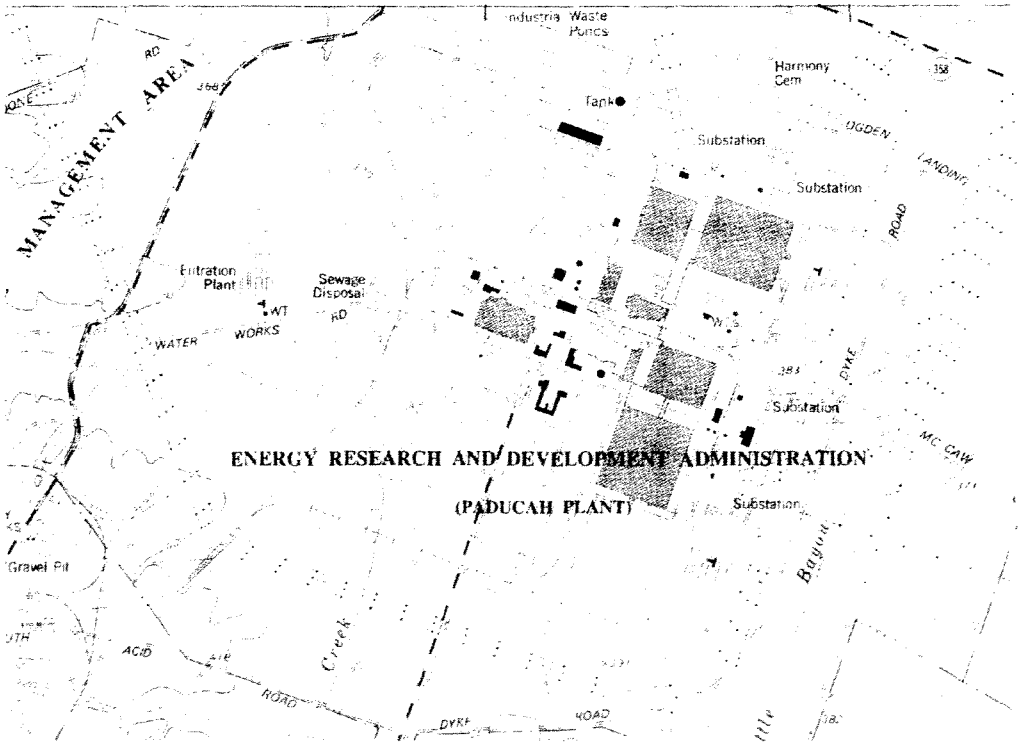
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-724-C is a one-story steel building that was constructed in 1954. It has a gable roof of steel panels, an exterior of steel panels, and a concrete foundation. The west façade has a bank of three eight-light steel and glass windows. At the roofline is a circular vent. On the main (north) façade is a garage bay with an overhead steel roll-up door. This façade also has a single-light glass and steel pedestrian door. On the east façade is a bank of three eight-light steel and glass windows. At the rear (south) façade is an open-air steel wing with a metal shed roof.

~~OFFICIAL USE ONLY~~ TH

7-12-L

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-241
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-724-D Lumber Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 6 / 1956 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel posts subsequent

15. DIMENSIONS: 2880 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / first
_____ / second
_____ / third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	8 / steel panels	original
P / shed	8 / steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

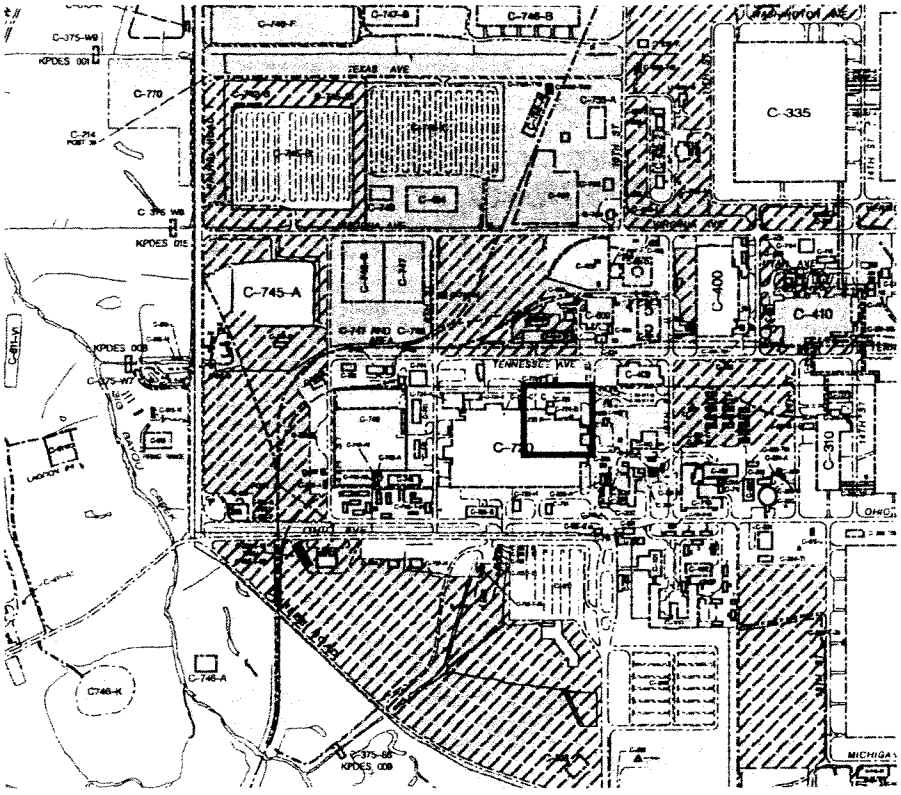
OFFICIAL USE ONLY

7-12-12

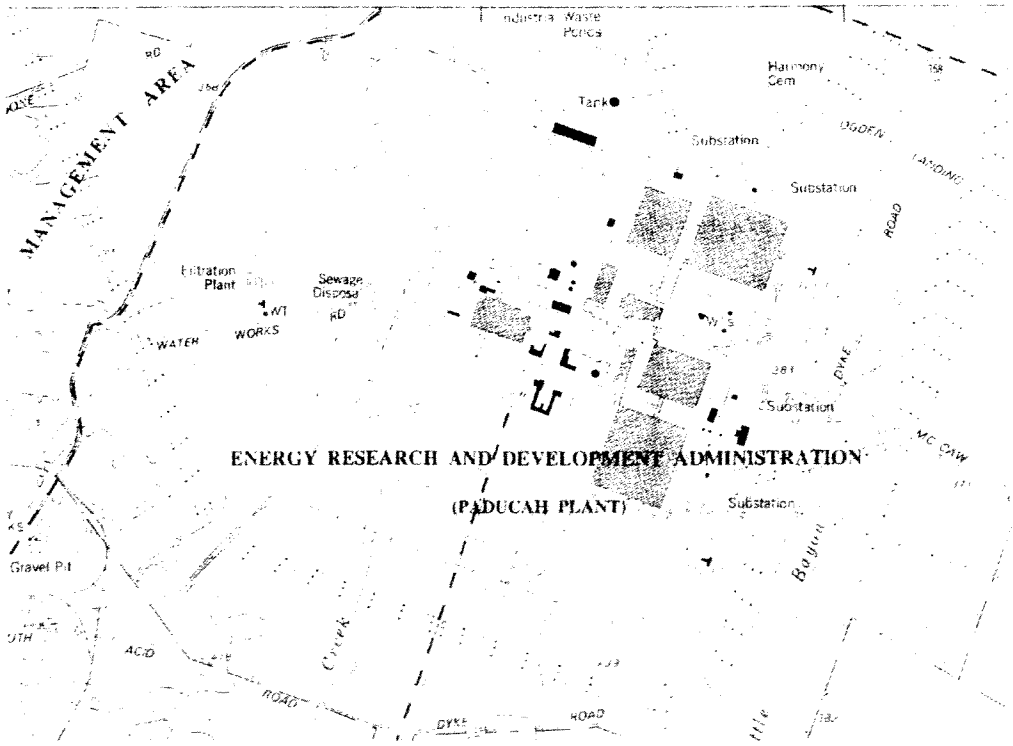
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-1272

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Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

C-724-D is a one-story steel building constructed in 1956. This building has a concrete foundation, shed roof of steel panels and an exterior of steel panels. On the west façade is a garage bay with a roll-up steel door. Attached on the east façade is a four-bay open-air shed for lumber storage. This wing is supported by steel posts and has a concrete foundation. Some bays are enclosed by chain link fencing.

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7-12-1

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-242
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-726 Sandblast Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 7 / 3 / 1973 documented

13. DATE OF MAJOR MODIFICATIONS:
____/____
____/____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel frame original
X / X / steel frame subsequent

15. DIMENSIONS: 2019 ft²
Height 1 story Width ____ Depth ____

16. PLAN:
____/____ first
____/____ second
____/____ third

17. STYLISTIC INFLUENCE:
____/____;____/____ first
____/____;____/____ second
____/____;____/____ third

STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

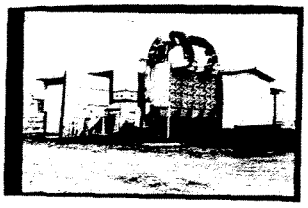
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	8 / transite panels	original
A / side gable	8 / transite panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ____/____/____
Write resource # on back of all prints.



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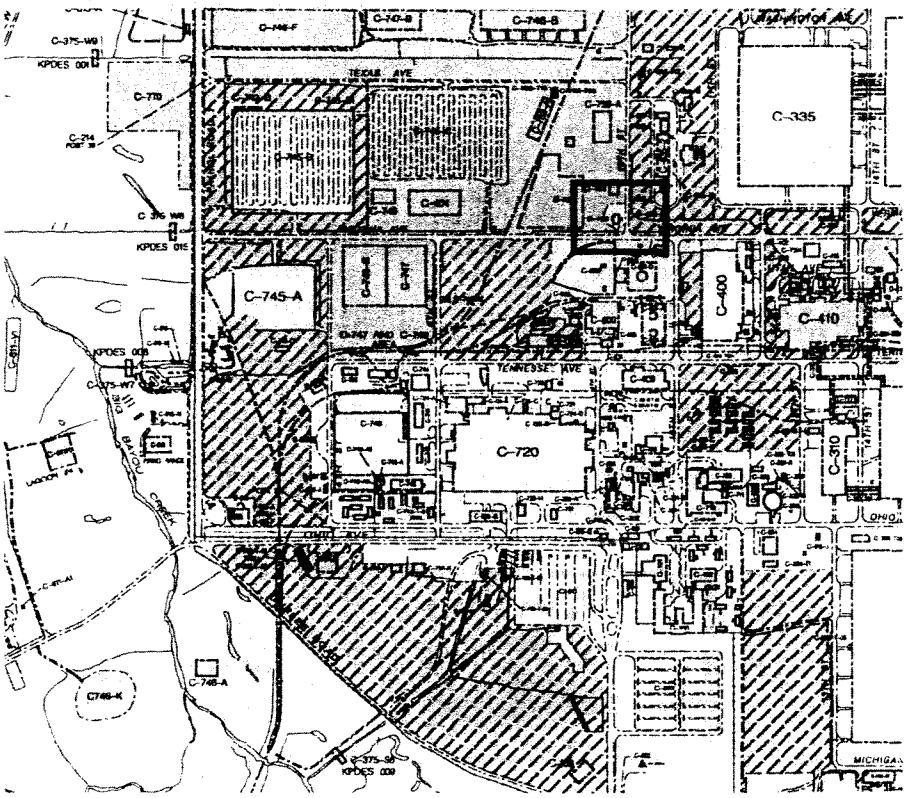
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TD
7-12-12

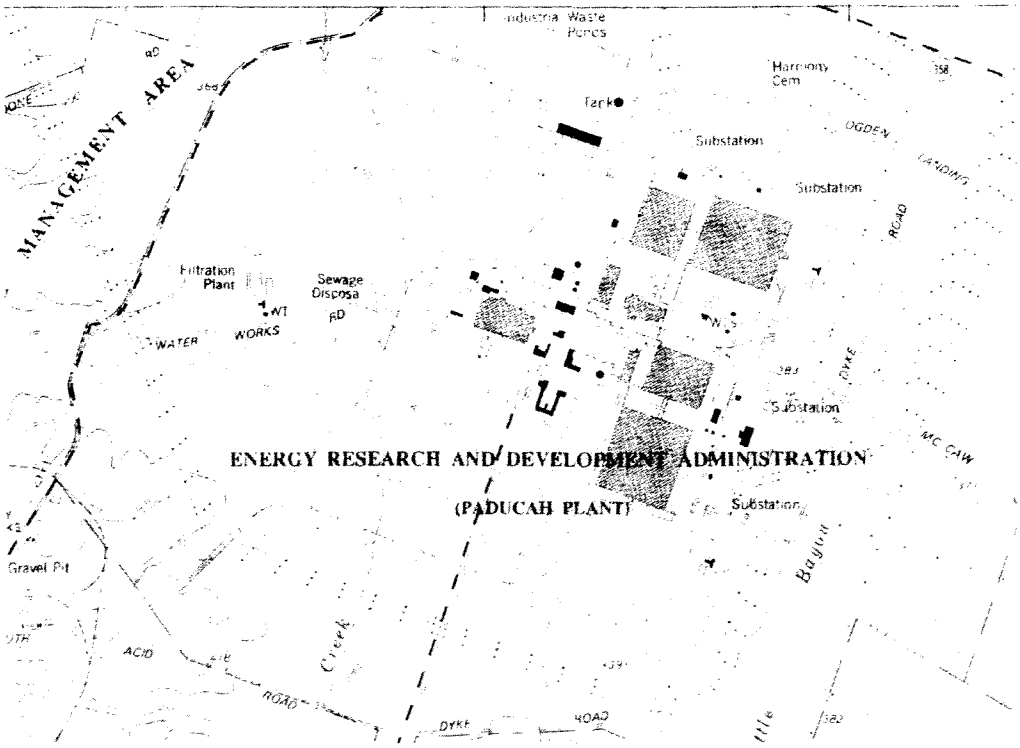
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TN

7-12-12

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Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections o the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-726 is a one-story building built in 1973 and used to conduct sandblasting operations. The building has a poured concrete foundation, a gable roof o transite panels and exterior walls of transite. On the main (south) façade is a shed roof drive-thru bay supported by steel posts. This façade has a large open ba enclosed with hanging felt strips. There is no fenestration on the west façade. On the north façade are large exhaust fans and filters. On the north façade is als a partially enclosed storage wing with transite panels. On the east facade is a projecting storage wing with transite panels.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-243
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-727 90-Day Mixed Waste Accumulation

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / 1954 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 4428 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL	
2	/ continuous	R	/ poured concrete original
2	/ continuous	R	/ poured concrete replacement

20. PRIMARY WALL MATERIAL:
Q / vertical metal panels original
Q / vertical metal panels replacement

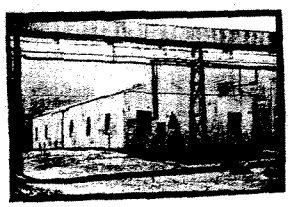
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING	
A	/ side gable	7	/ standing metal seam original
A	/ side gable	7	/ standing metal seam replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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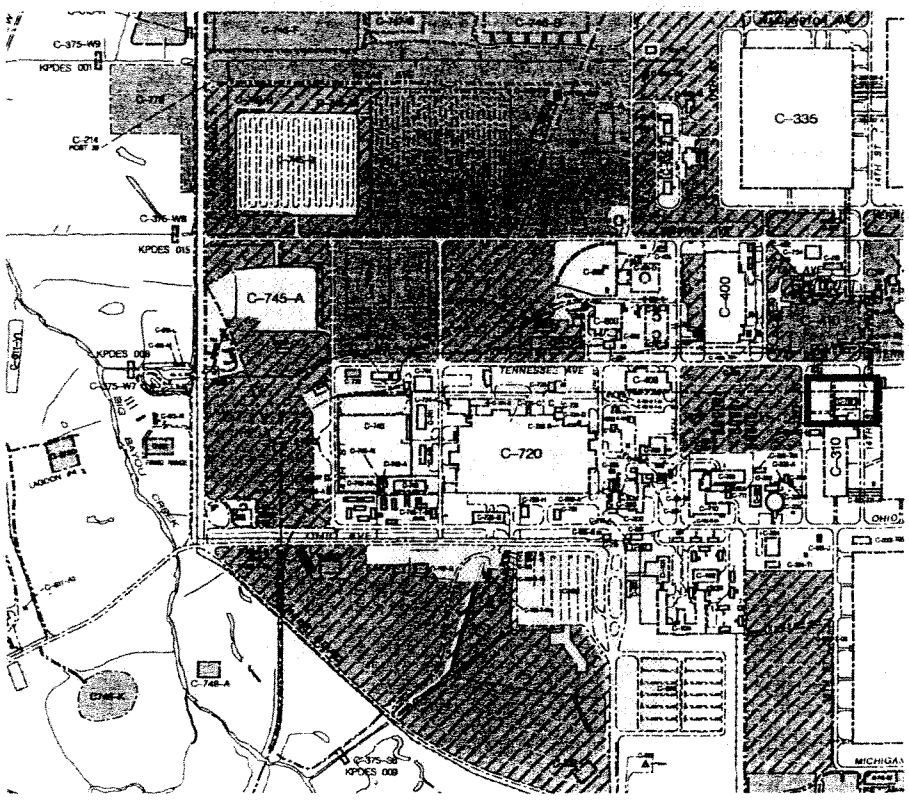
7-12-1L

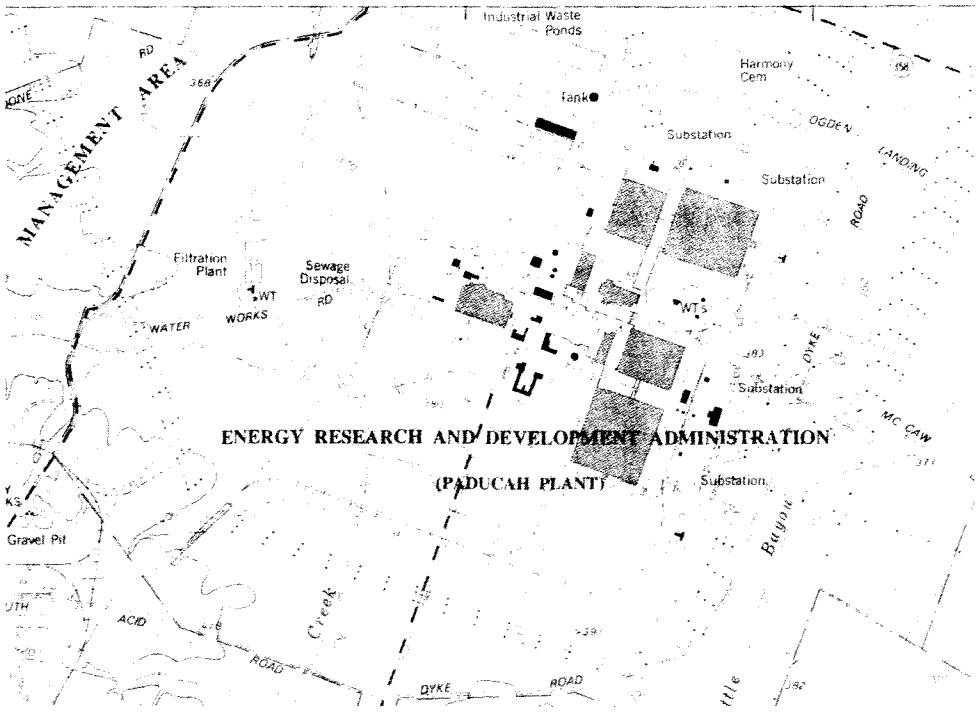
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7124

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-727 is a one-story, steel, pre-fabricated building erected in 1954. This building has a poured concrete foundation, exterior walls of vertical metal panels and a gable roof of crimped steel panels. The west section of the building has raised gable roof section which lacks fenestration. On the main (east) façade is an entrance with hinged steel double doors. Windows are original, eight-light, steel and glass design with hinged four-light panels. On the north façade are five, eight-light windows. On the south façade is a garage bay with paired steel doors. On the west façade are two, eight-light, steel windows

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-244
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-728 Motor Cleaning Facility

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: I / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 8 / 1958 documented

13. DATE OF MAJOR MODIFICATIONS:
____/ _____
____/ _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 1597 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/ _____ first
____/ _____ second
____/ _____ third

17. STYLISTIC INFLUENCE:
____/ _____ : _____/ _____ first
____/ _____ : _____/ _____ second
____/ _____ : _____/ _____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / transite panels original
O / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	8 / transite	original
A / side gable	8 / transite	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____/ ____/ _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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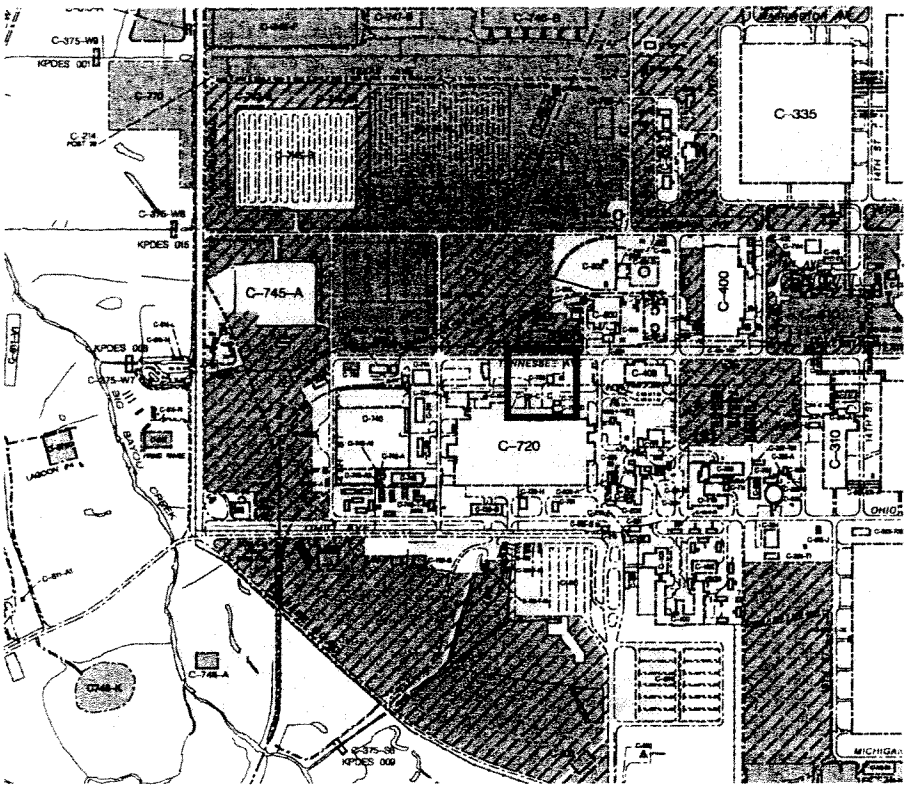
7-12-12

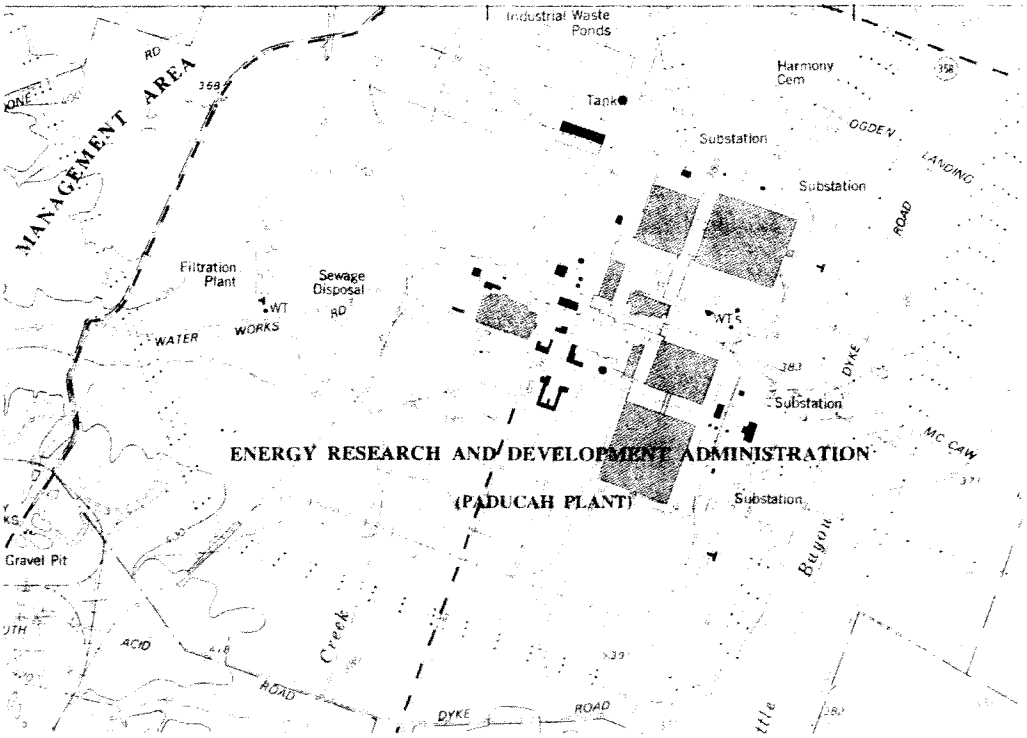
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design an engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant wa referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteri and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large an small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-728 is a one-story, steel building constructed in 1958, with a concrete foundation, a gable roof transite panels and exterior walls of transite. On the mai (North) façade is a garage bay with a roll-up steel door. This façade also has a pedestrian entrance with a solid steel door. There is no fenestration on the wes façade. On the east façade is a solid steel door and on the south façade is a two-light steel and glass door.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-245
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-729 Acetylene Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 6 / 1956 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 430 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
_____ / second
_____ / third

17. STYLISTIC INFLUENCE:
_____ / _____ : _____ / _____ first
_____ / _____ : _____ / _____ second
_____ / _____ : _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / transite panels original
O / transite panels replacement

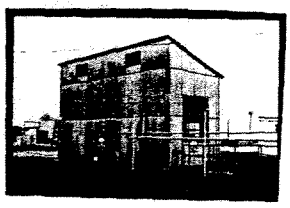
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
P	/ shed	8	/ transite panels	original
P	/ shed	8	/ transite panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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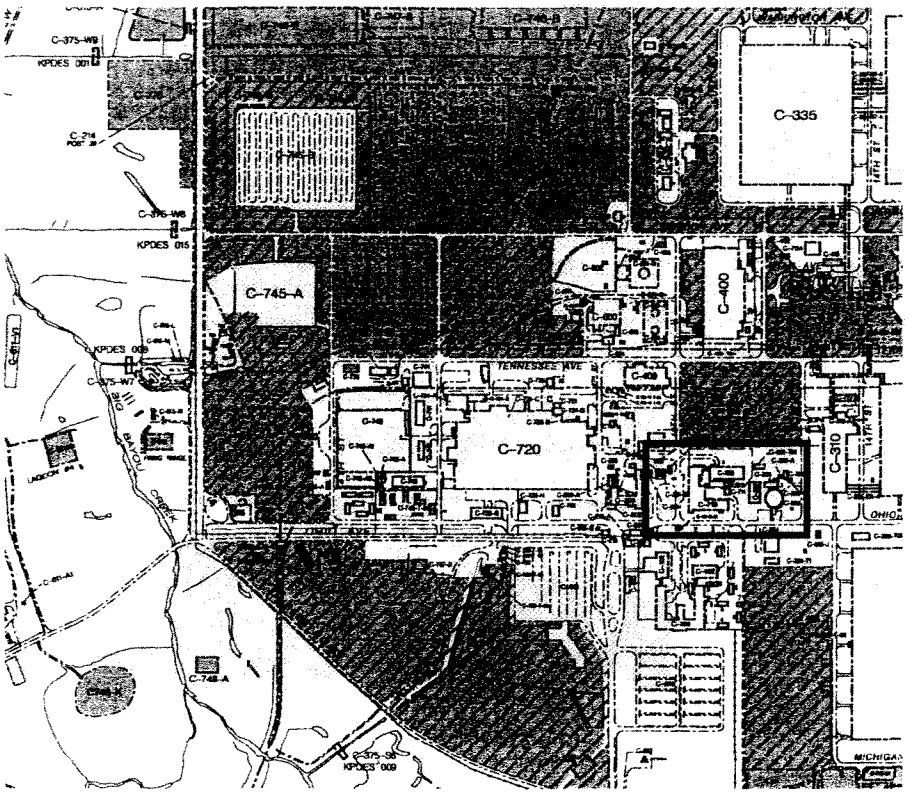
2-12-12

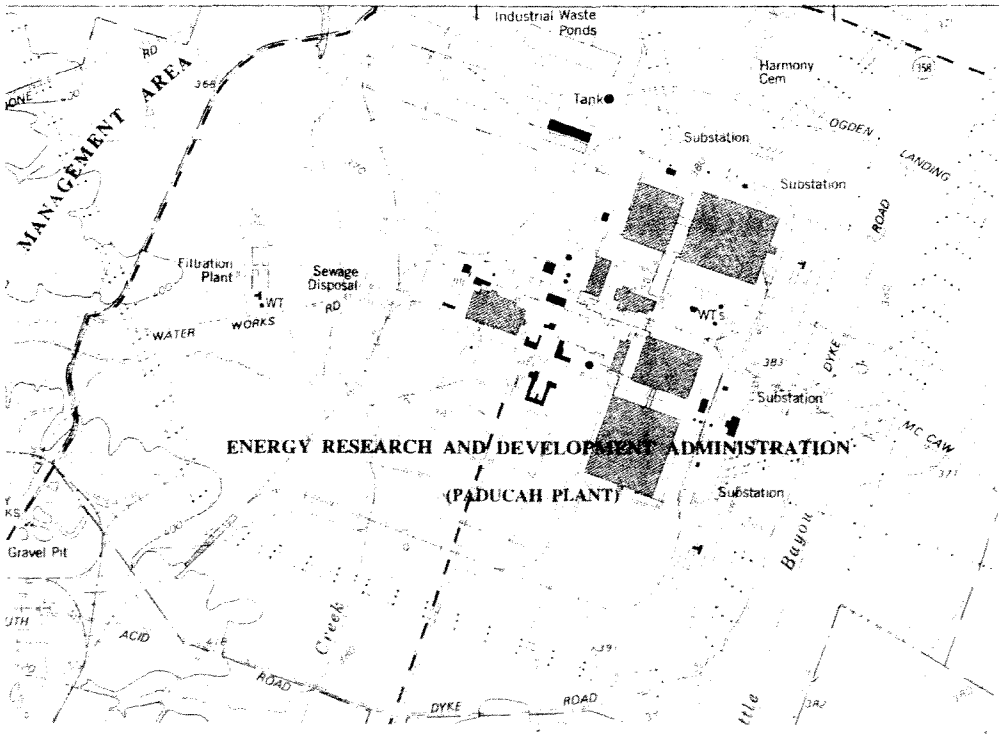
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erectio of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge an Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C 315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the secon phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was complete in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-729 is a one-story, rectangular plan building erected in 1956. The building has a poured concrete foundation, an exterior of transite panels and a shee roof of transite. On the main (west) facade are original, paired, six-light steel and glass doors. On the south façade, below the roofline, are two metal louvered vents. On the east façade is an original twenty-light steel and glass window. On the north façade are original double doors of six-light steel and glass design. The window bay on this façade has paired, twenty-light, steel and glass windows with inset four-light hinged panels.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-246
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-730 Maintenance Service Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 5 / 5 / 1955 documented

13. DATE OF MAJOR MODIFICATIONS:
____/____
____/____

14. CONSTRUCTION METHOD/MATERIAL:
P / 1 / concrete block original
P / 1 / concrete block subsequent

15. DIMENSIONS: 1057 ft²
Height 1 story Width ____ Depth ____

16. PLAN:
____/____ first
____/____ second
____/____ third

17. STYLISTIC INFLUENCE:
____/____;____/____ first
____/____;____/____ second
____/____;____/____ third

STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

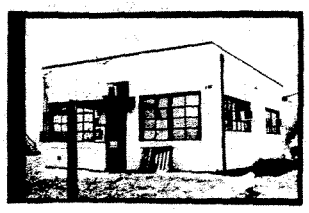
21. ROOF CONFIGURATION/COVERING:

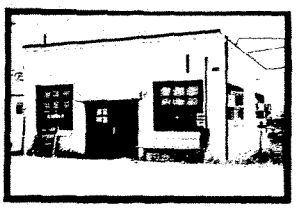
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ____/____/____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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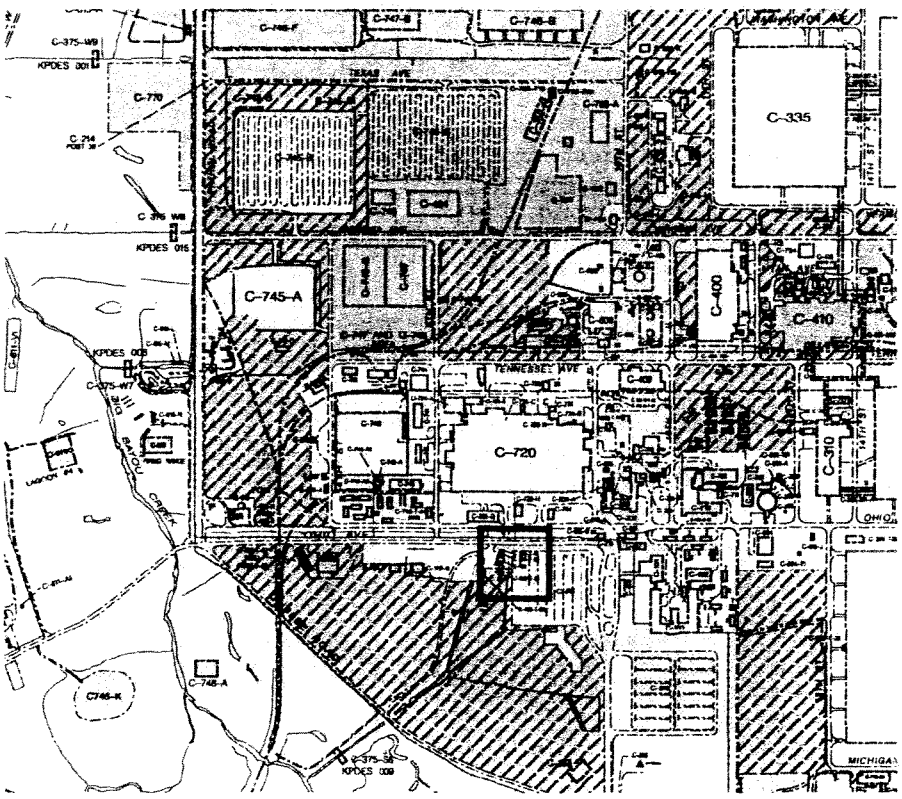
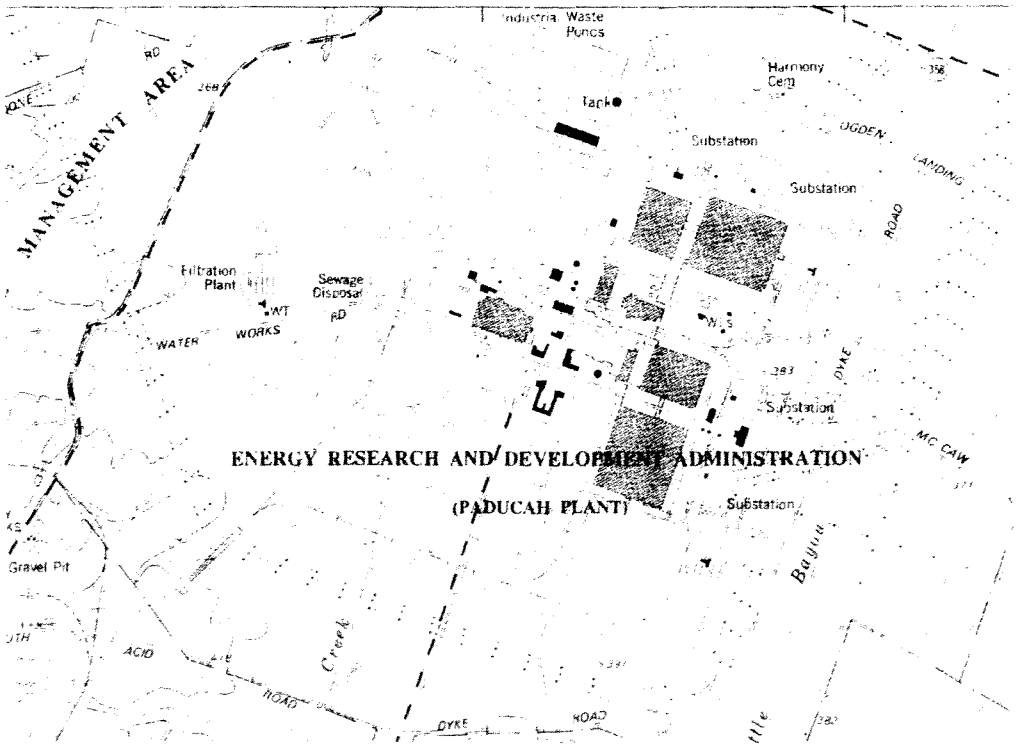
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-L

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-730 is a one-story, concrete block building constructed in 1955. The building has a poured concrete foundation, a built-up, flat roof and exterior walls of concrete block. On the main (west) façade is a central bay entrance with ca. 1990, single-light steel and glass doors. Windows on this façade are twelve-light, steel and glass design with hinged six-light central panels. On the north façade are two, paired, nine-light, steel and glass windows which have been altered for the addition of air-conditioning units. ON the east façade are similar windows with added air conditioning units. The east façade has an original entrance with a four-light, steel and glass door and flanking, paired, eight-light, steel and glass windows. All of the windows have concrete sills. Over the entrance on the east façade is a wood and metal canopy.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-247
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-731 Railroad Repair Equipment Storage Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 1 / 1981 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 1280 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / crimped metal panels original
Q / crimped metal panels replacement

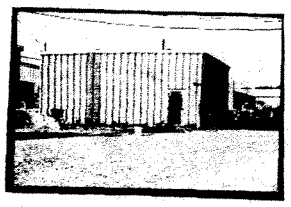
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
_____ / _____	7 / crimped metal panels	original
_____ / _____	7 / crimped metal panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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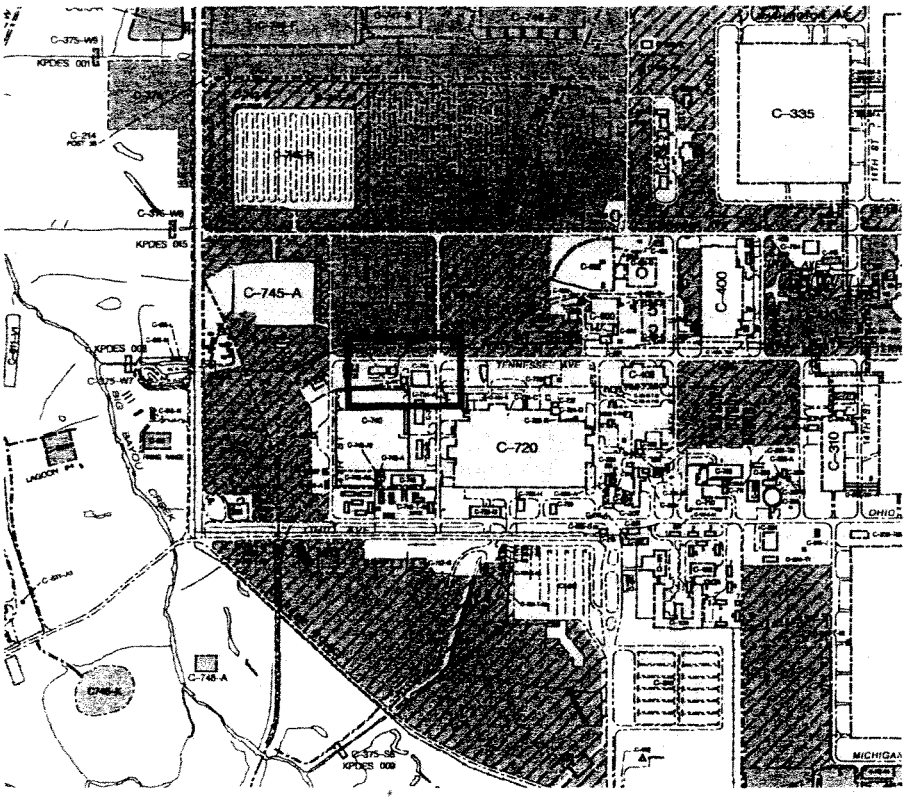
7-12-2

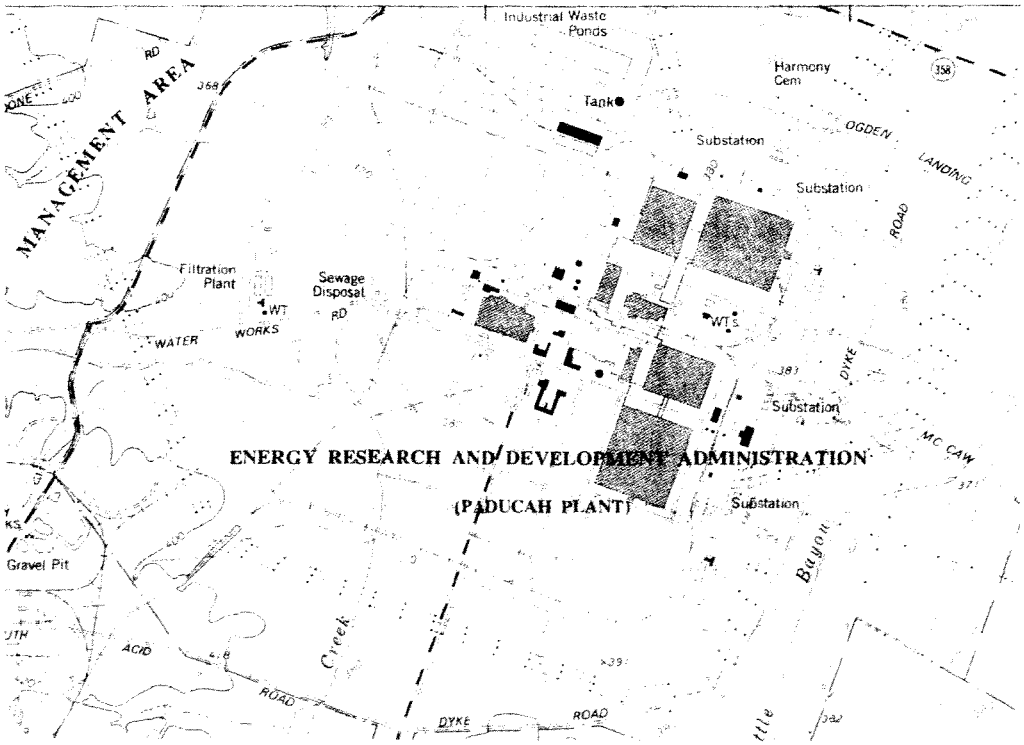
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Built in 1981, C-731 is a one-story, metal, pre-fabricated building composed of two-garage bays used as Railroad Repair Equipment Storage Building. The building has a concrete foundation and walls and a roof of crimped steel. The garage bays have roll-up steel garage doors. On the north façade is a pedestrian entrance with a single-light steel and glass door.

~~OFFICIAL USE ONLY~~ mh
7-12-2

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-248
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-732 Maintenance Materials Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 1 / 1981 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 1680 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
O / rectangular first
___ / _____ second
___ / _____ third

17. STYLISTIC INFLUENCE:
___ / _____ ; _____ / _____ first
___ / _____ ; _____ / _____ second
___ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S / poured concrete original
2 / vertical board replacement

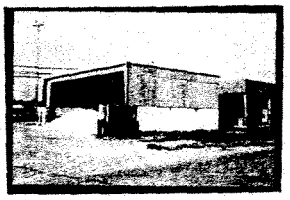
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	7 / metal panels	original
P / shed	7 / metal panels	replacement

22. CONDITION: G / In a state of good repair

23. MODIFICATION: 2 / Moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

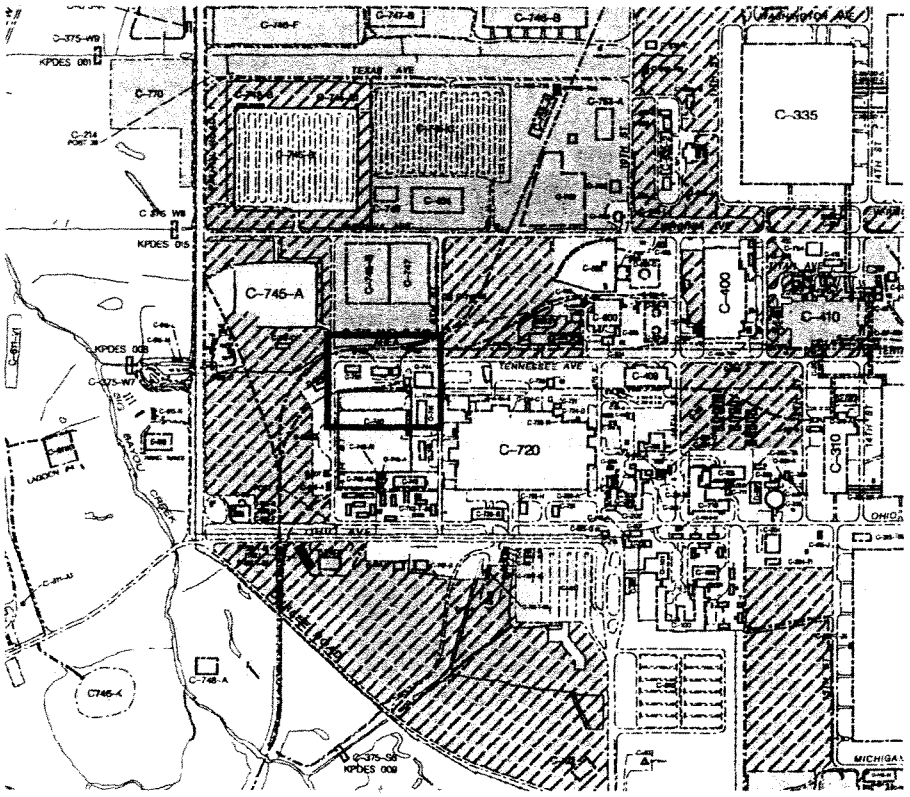
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

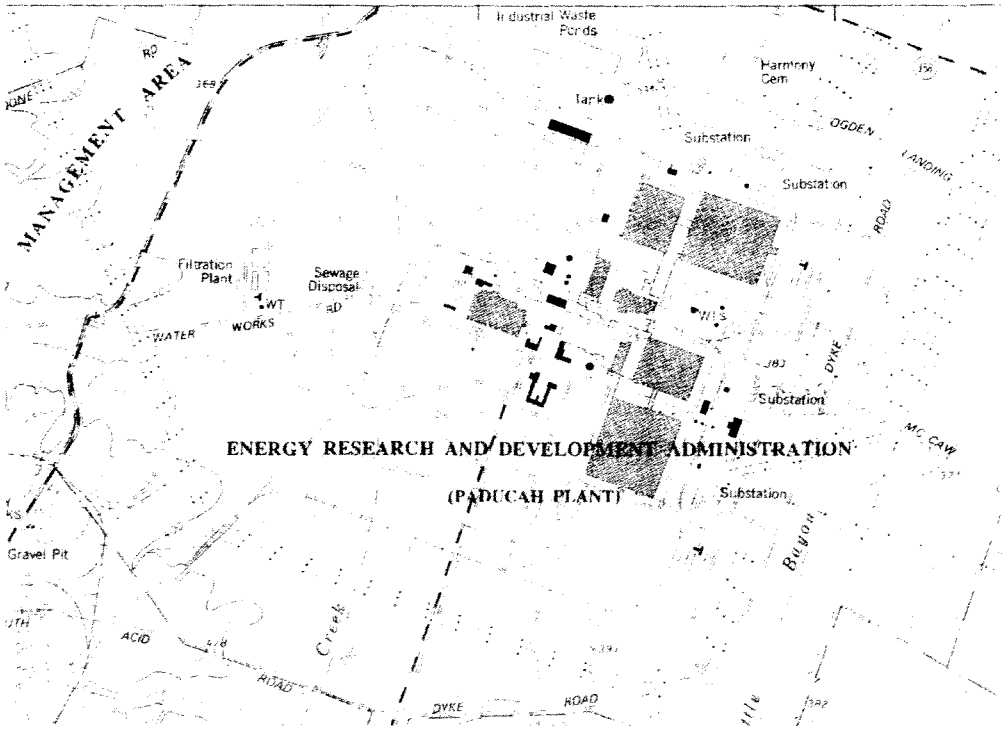
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TA

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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C-732 is a one-story, open air storage building built in 1981 with a concrete foundation, shed roof of metal and exterior walls composed of poured concrete and vertical board panels. The building has an open-bay on the east façade and is presently used to store salt for winter road de-icing.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY ____
RESOURCE # MCN-249
RELATED GROUP # ____
EVALUATION ____
SHPO EVALUATION ____
DESTROYED ____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-733 Waste Oil and Chemical Storage Facility

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 5 / 1985 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / metal and steel original
X / X / metal and steel subsequent

15. DIMENSIONS: 1680 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / transite panels original
Q / transite panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	7 / corrugated metal panels	original
Q / flat	7 / corrugated metal panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

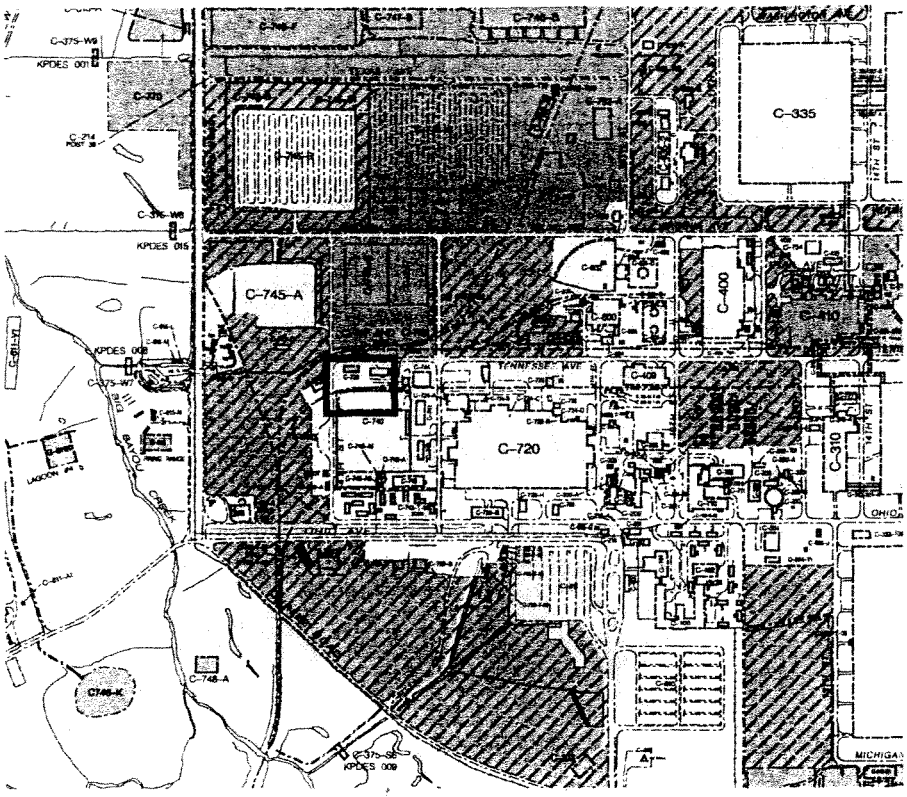
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

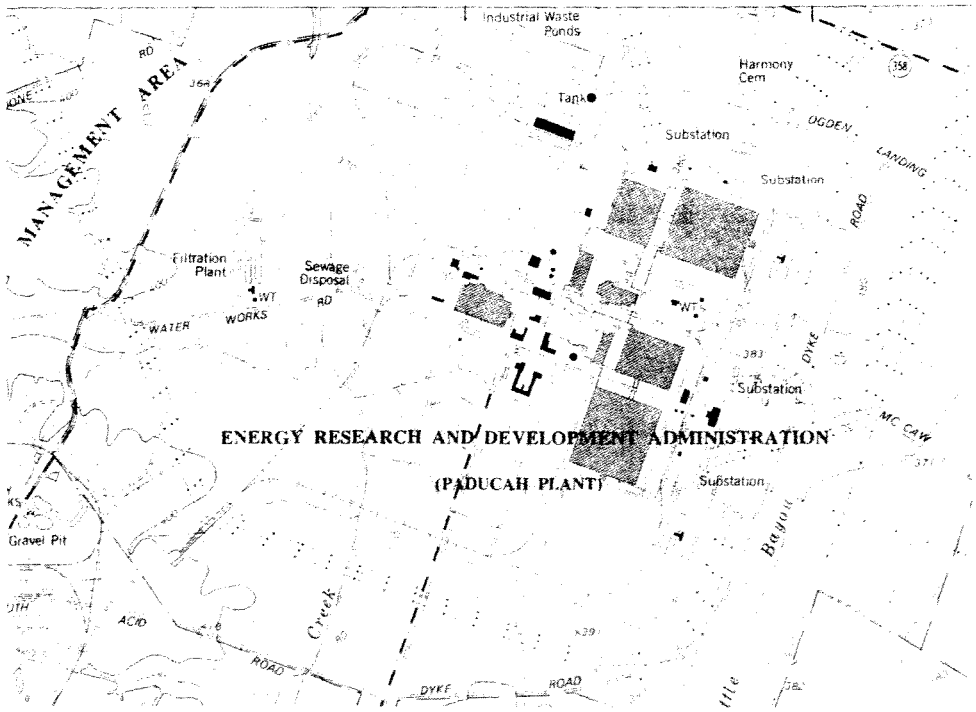
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

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C-733 is a one-story steel and metal storage building built in 1985 with a flat roof of corrugated metal, exterior walls of transite and a concrete foundation. On the rear and west bays are drive-thru wings which are open-air and supported by steel posts. These open-air sections are enclosed by chain link fencing.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-250
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-740-B Oil Drum Storage Shelter

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 5 / 1975 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 2880 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
2	/ continuous	R	/ poured concrete	original
2	/ continuous	R	/ poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / crimped metal panels original
Q / crimped metal panels replacement

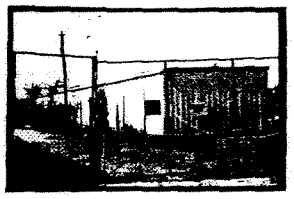
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
Q	/ flat	7	/ crimped metal panels	original
Q	/ flat	7	/ crimped metal panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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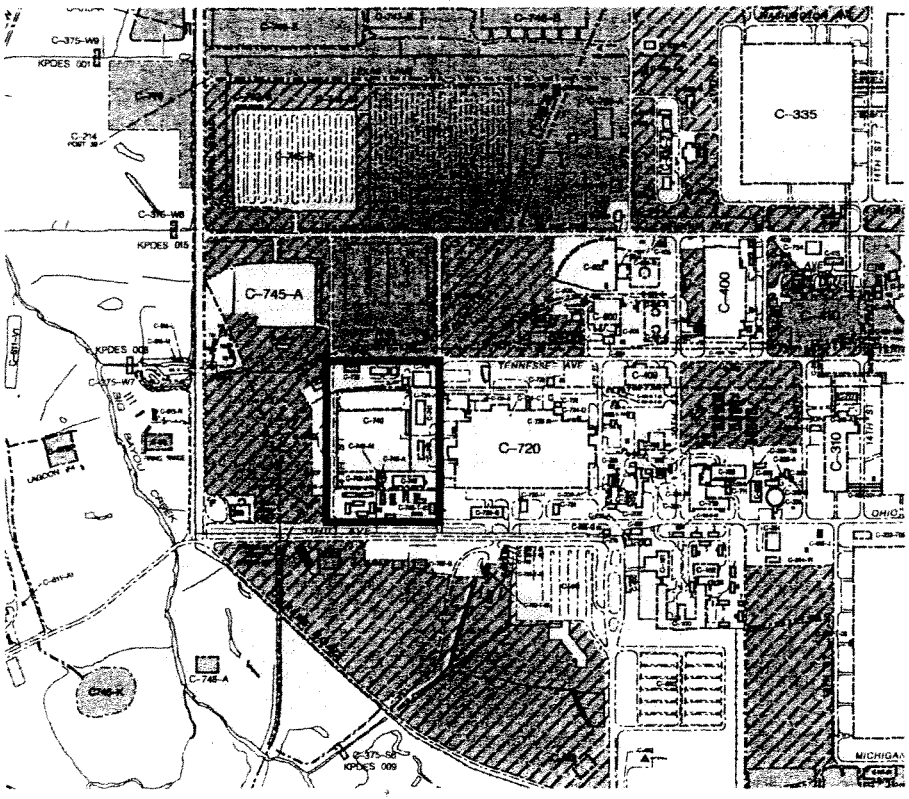
TH 2-12-12

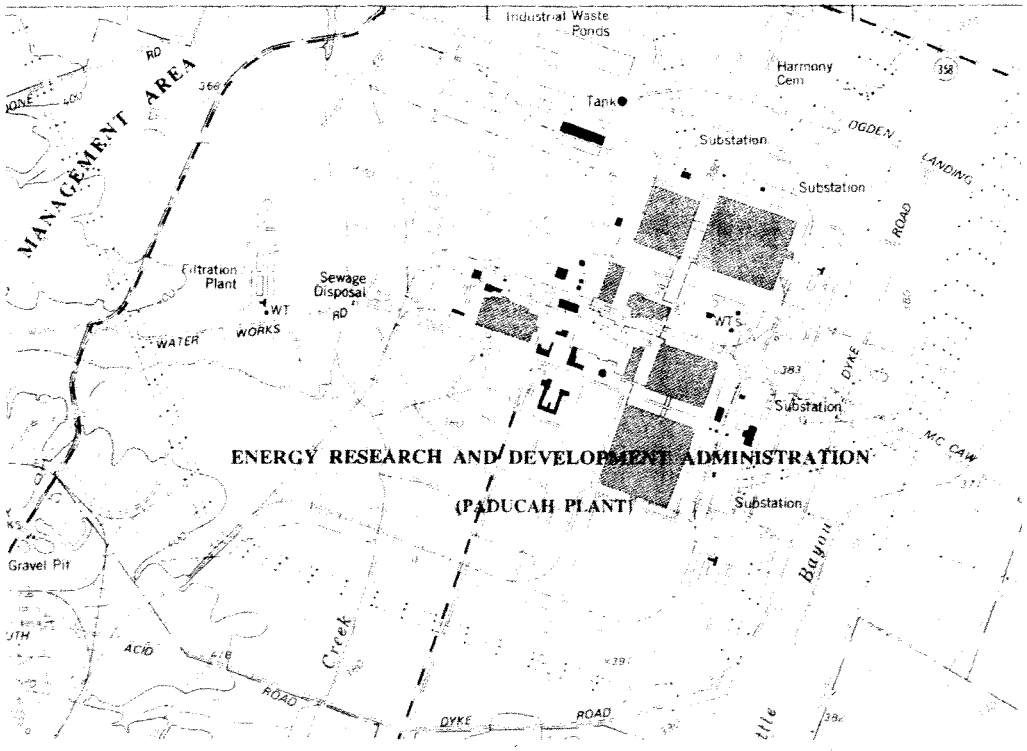
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels** & **Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-740-B is a one-story, prefabricated metal building constructed for an oil drum storage shelter. The building has a flat roof of crimped metal panels, a continuous foundation of poured concrete and an exterior of crimped metal panels.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY ____
RESOURCE # MCN-251
RELATED GROUP # ____
EVALUATION ____
SHPO EVALUATION ____
DESTROYED ____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-741 Mobile Equipment Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
____/ ____
____/ ____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 5360 ft²
Height 1 story Width 6 bays Depth ____

16. PLAN:
____/ ____ first
____/ ____ second
____/ ____ third

17. STYLISTIC INFLUENCE:
____/ ____ : ____/ ____ first
____/ ____ : ____/ ____ second
____/ ____ : ____/ ____ third

18. STYLE DEVELOPMENT:
____/ first ____/ second ____/ third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / steel panels original
O / steel panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
P / shed	7 / metal panels	original
P / shed	7 / metal panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ____/ ____/ ____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

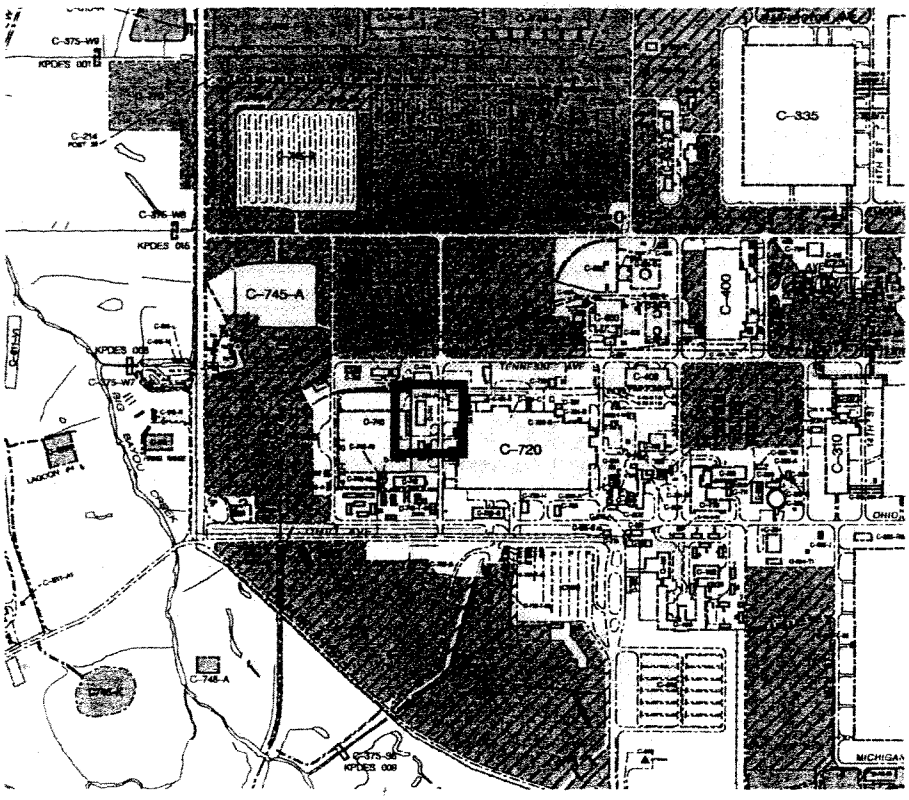
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH
7-12-12

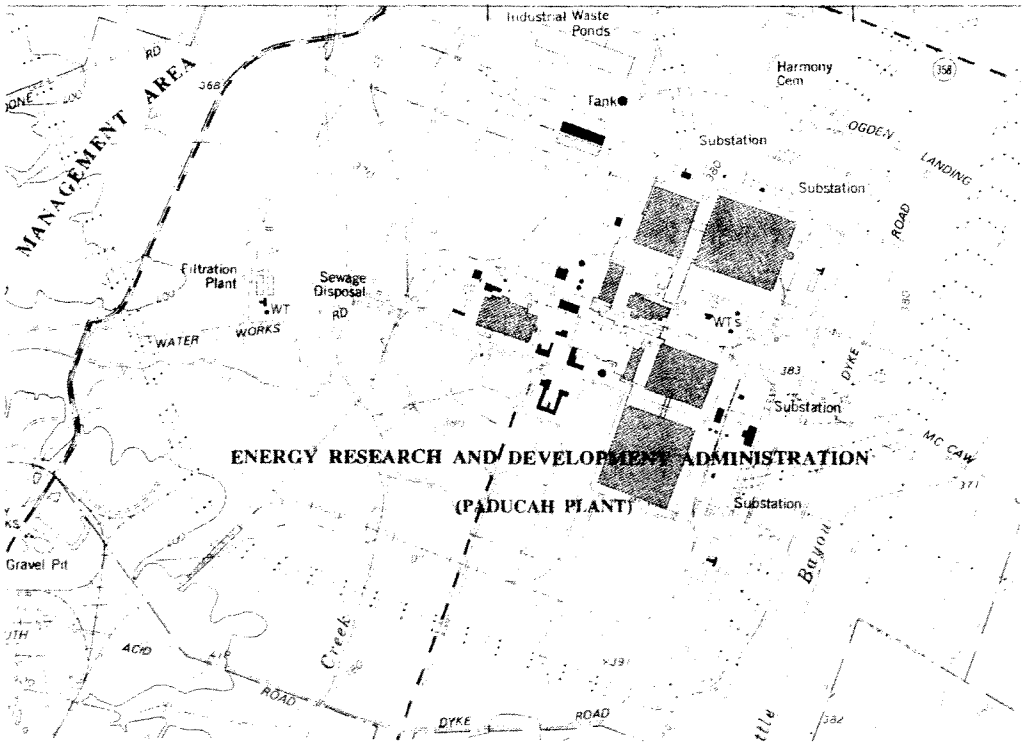
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the Smith Group.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

C-741 is a one-story, steel building constructed in 1952 and composed of six vehicular storage bays. The building has a concrete foundation, a shed metal roof and exterior walls of steel panels. The east façade of the building is open and has a shed roof canopy across the width of the façade. The building is supported by steel posts.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY ____ PROGRAM: ____
RESOURCE # MCN-252
RELATED GROUP # ____
EVALUATION ____
SHPO EVALUATION ____
DESTROYED ____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-742 Cylinder Storage Building

2. ADDRESS/LOCATION: Located north on county Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, Kentucky
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 3 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 4 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
____ Survey ____ HABS/HAER
____ KY Land ____ Local Land
____ NR ____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / ____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
____ / ____
____ / ____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 5360 ft²
Height 1 story Width ____ Depth ____

16. PLAN:
____ / ____ first
____ / ____ second
____ / ____ third

17. STYLISTIC INFLUENCE:
____ / ____ ; ____ / ____ first
____ / ____ ; ____ / ____ second
____ / ____ ; ____ / ____ third

18. STYLE DEVELOPMENT:
____ / first ____ / second ____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
O / concrete block original
O / concrete block replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	7 / metal panels	original
P / shed	7 / transite panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: ____ / ____ / ____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

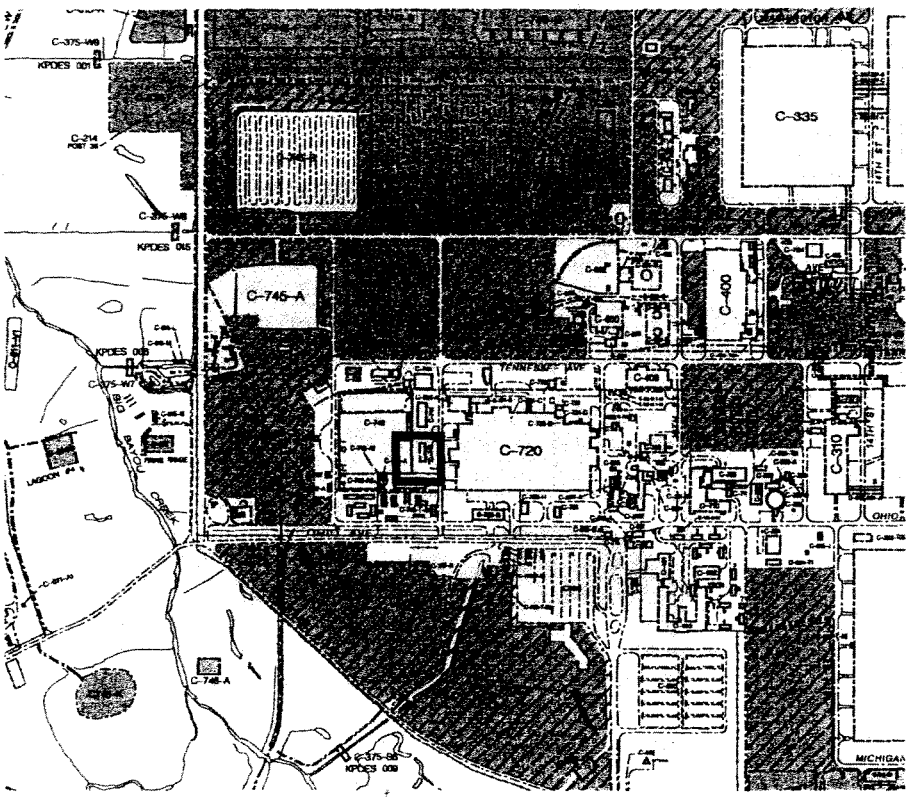
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH 742-H

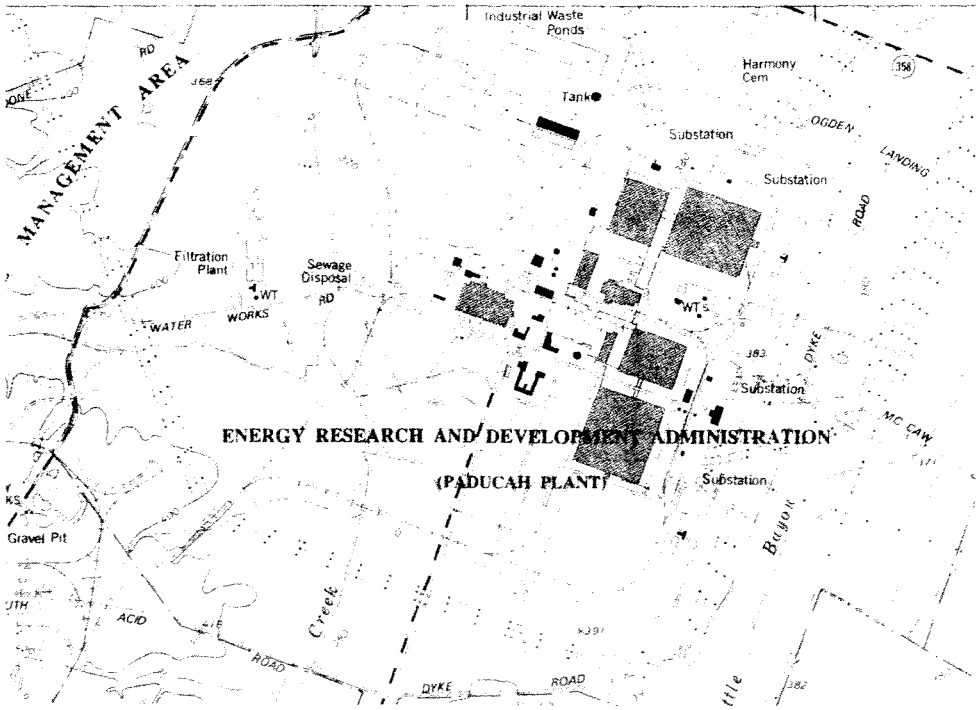
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

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The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because Giffels & Vallet already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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Warehouses, Storage and Support Buildings constitute a large number of the buildings and structures at the PGDP. Support buildings include the cafeteria and hospital (Buildings C-101 and C-102), the steam plant (Building C-600), and carpenter shop (Building C-724-B). The plant contains a number of large and small warehouse buildings such as the C-746-A and B, and storage facilities such as the Maintenance Materials Storage Building (C-732).

Building C-742 is a one-story, steel and concrete block building built in 1952. This building is composed of a one-story office and an attached open-air storage wing. The office has walls of concrete block and a flat metal roof. On the east façade is an original entrance with a two-light steel and glass door. Windows are fixed, single-light glass and wood design on the west, north and east facades. The building rests on a poured concrete foundation. The west façade is an attached open-air storage shed with a shed roof of transite panels. The shed is supported by steel posts and enclosed with wire mesh fencing. On both the east and west facades are three sets of paired metal, hinged door which access this storage area.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

COUNTY McCracken
RESOURCE # MCN-253
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-743 Office Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /

Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /

12. CONSTRUCTION DATE: 1971 / _____ estimated
1 / 9 / 7 / 1 / 1971 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel original
X / X / steel subsequent

15. DIMENSIONS: 9973 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
2 / continuous	R / poured concrete	original
2 / continuous	R / poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Y / vinyl siding original
Y / vinyl siding replacement

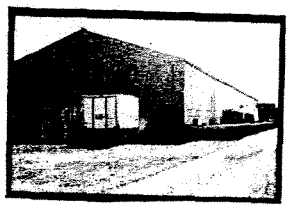
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side	8 / rolled asphalt material	original
A / side	8 / rolled asphalt material	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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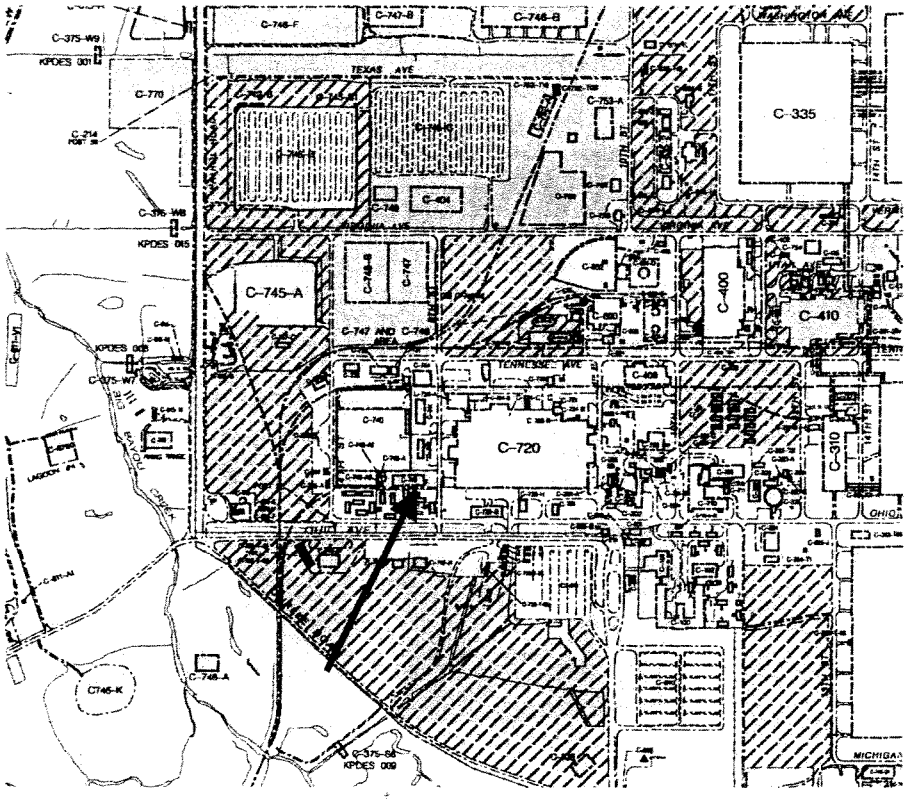
7-12-12

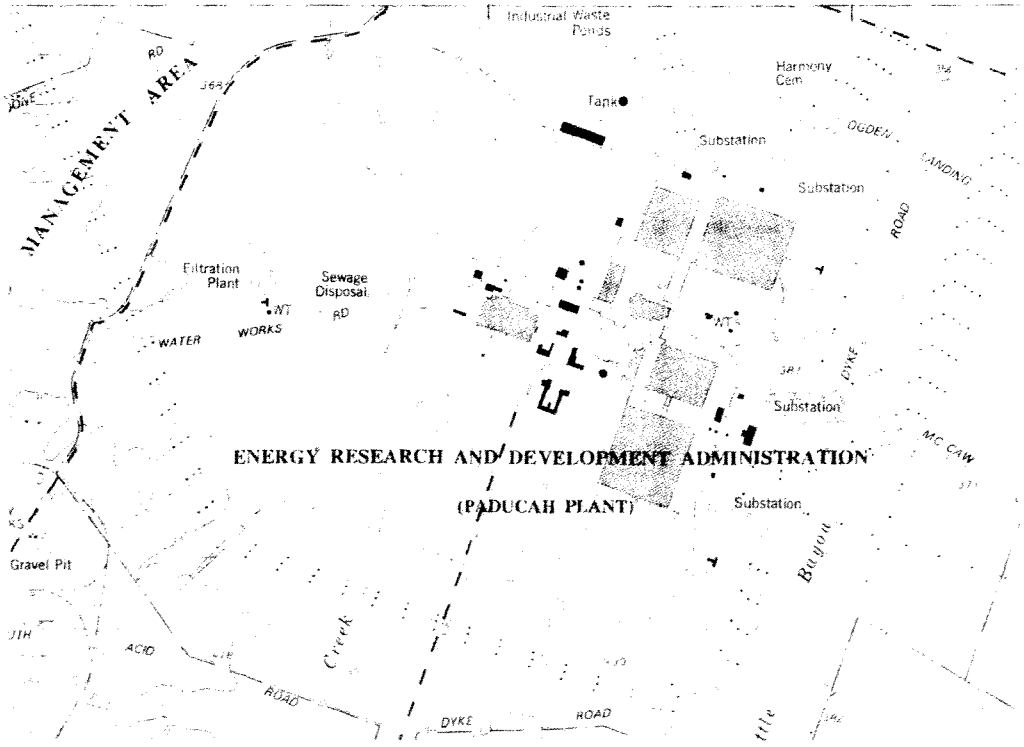
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY

7-12-12

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The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Administrative Buildings are defined as those containing offices and the administrative functions of the facility. When the PGDP was built in the 1950s, the main administrative building was Building C-100 and this still houses many of the significant offices of the plant. Other administrative buildings include the Training and Cascade Office (Building C-304) and Building C-212.

Building C-743 is a one-story, steel building erected in 1971. The building has a gable roof of rolled asphalt roofing material, a concrete foundation and an exterior of vinyl siding. The main (east) façade has an entrance with ca. 1990, paired style-light glass and steel doors. At the entrance is a metal shed roof canopy supported by steel posts. Windows are ca. 1990, fixed, single-light design. On the south façade are nine window bays. On the west façade is a window bay and entrance in a projecting gabled bay. This entrance has a ca. 1990, single-light steel and glass door. On the north façade are three entrances with ca. 1990, single-light glass and steel doors. This façade has ten window bays. Two of entrances have metal canopies supported by metal posts. Extending the length of this façade is a concrete loading dock with a steel pipe railing.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-254
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-744 Material Handling Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / concrete and steel original
X / X / concrete and steel subsequent

15. DIMENSIONS: 6400 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____/_____ first
_____/_____ second
_____/_____ third

17. STYLISTIC INFLUENCE:
_____/_____; _____/_____ first
_____/_____; _____/_____ second
_____/_____; _____/_____ third

STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
S/Q / concrete and steel panels original
S/Q/ concrete and steel panels replacement

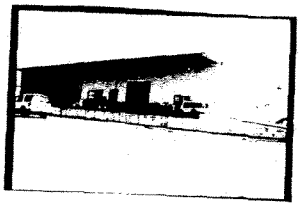
21. ROOF CONFIGURATION/COVERING:

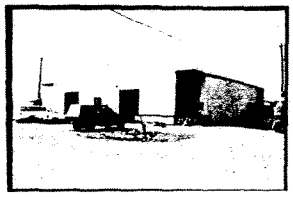
CONFIGURATION		COVERING		
Q	/ flat	8	/ steel panels	original
Q	/ flat	8	/ steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

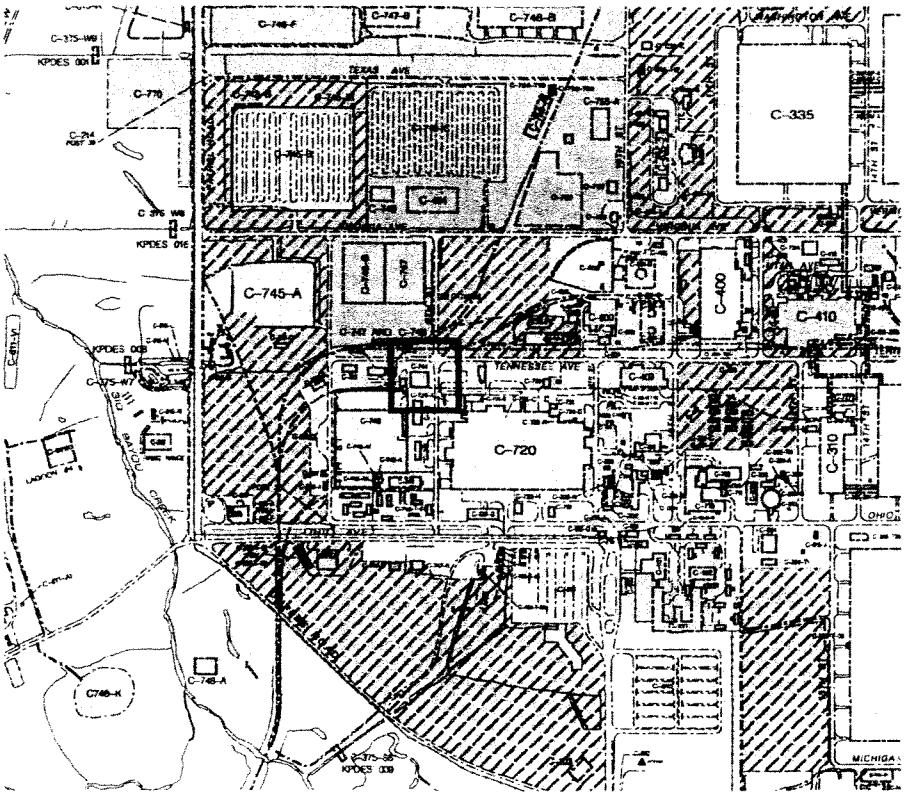
(SEE CONTINUATION PAGE)

~~OFFICIAL USE ONLY~~ TH 7-12-12

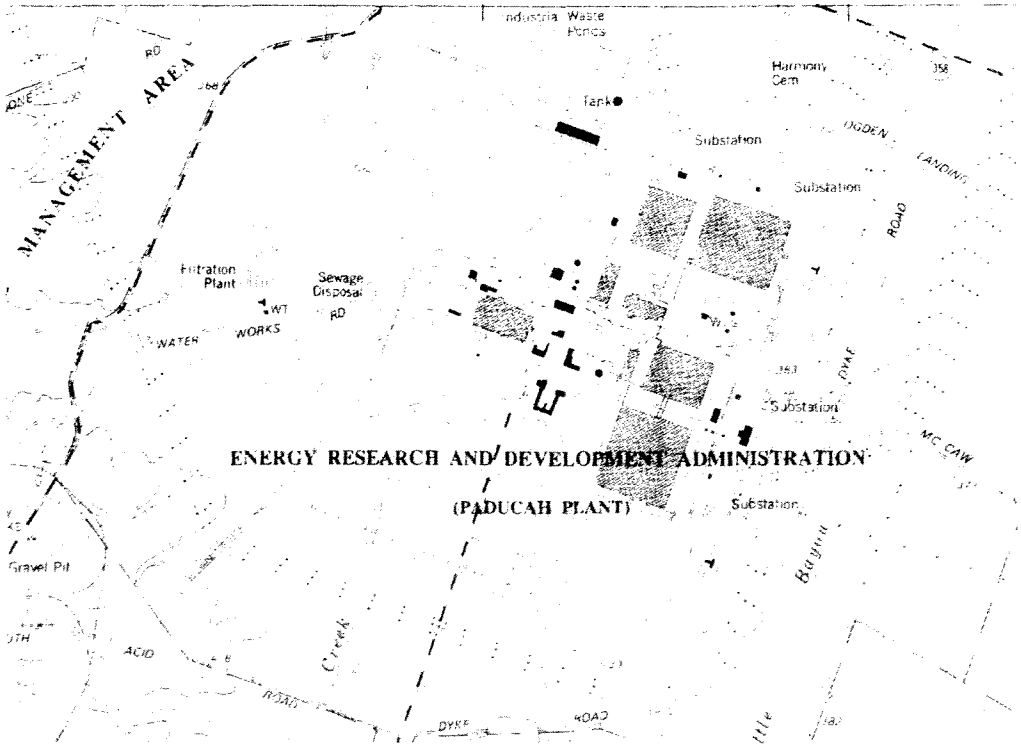
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH
7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-744 is a one-story, steel and concrete building constructed in 1952. It has a concrete foundation, metal roof and an exterior of concrete and steel panels. The west façade is of poured concrete and lacks fenestration. On the north facade the walls are of steel panels and this façade has a pedestrian entrance and two garage bays. The pedestrian entrance has an original two-light steel and glass door. The garage bays have overhead, roll-up steel doors. The east façade is of concrete with three small windows containing air conditioning units. The south façade is of concrete and this façade has a pedestrian entrance and two garage bays similar to the north façade. This façade also has a concrete loading dock which is accessed by a concrete ramp at the southeast corner of the building. Over the loading dock is a flat roof steel canopy.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-255
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-A North Warehouse

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 4 / _____ documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 72000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____ ; _____/_____ first
____/_____ ; _____/_____ second
____/_____ ; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

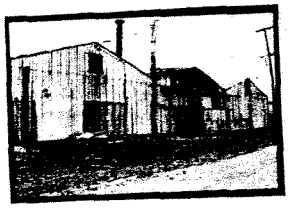
21. ROOF CONFIGURATION/COVERING:

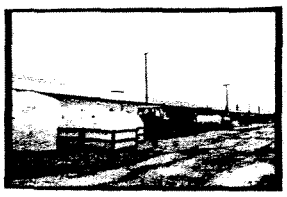
CONFIGURATION		COVERING		
A	/ side gable	8	/ steel panels	original
A	/ side gable	8	/ steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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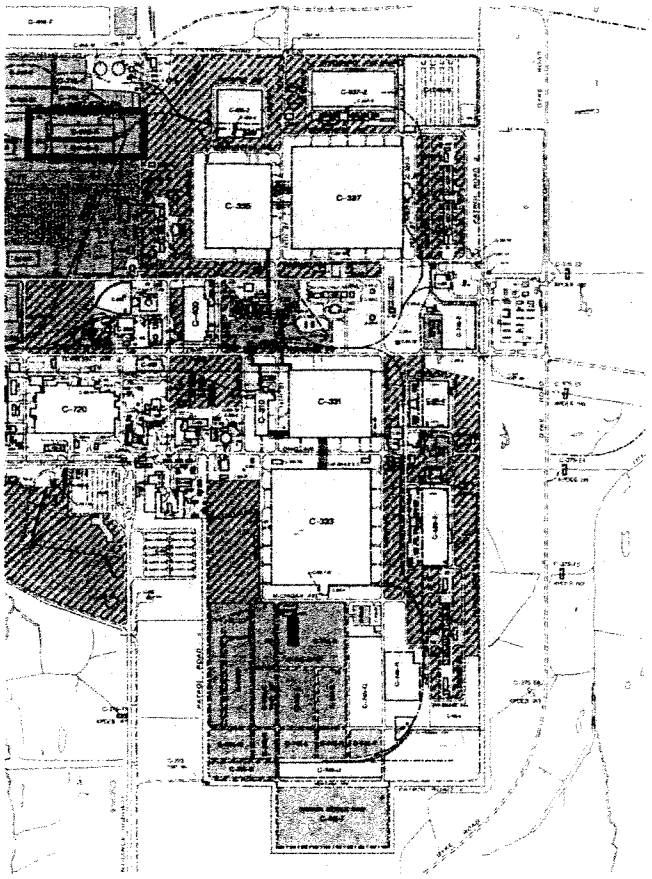
7-12-12

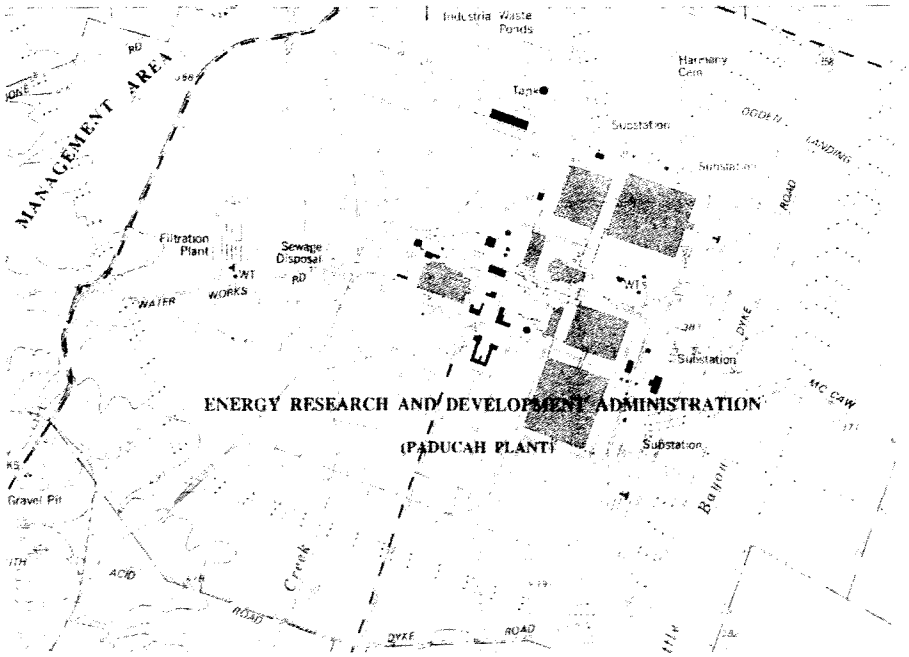
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



TH

2/2/12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

C-746-A is a one-story, pre-fabricated metal building erected in 1954. The building has a concrete foundation, a gable roof of steel panels and exterior walls of steel panels. The building has three attached sections with gable roofs. On the east façade, the central section has an overhead steel track garage bay door. Adjacent to this entrance is a three-light, steel and glass pedestrian door. The flanking two sections of this building have three-light, steel and glass doors on the east façade. The south two sections also have a roof addition of steel panels and this addition has a gable roof. The south façade has several bays with sliding track doors. there is no fenestration on the west façade. The north façade has six garage bays with overhead steel track doors and six pedestrian doors of solid steel.

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-256
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-B South Warehouse

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

THER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / 1959 estimated
1 / 9 / 5 / 9 / 1959 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated metal original
X / X / prefabricated metal subsequent

15. DIMENSIONS: 72000 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / first
_____ / second
_____ / third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

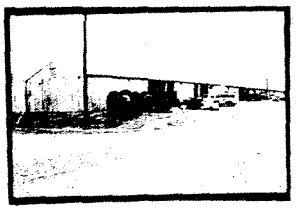
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
A	/ side gable	8	/ standing metal seam	original
A	/ side gable	8	/ standing metal seam	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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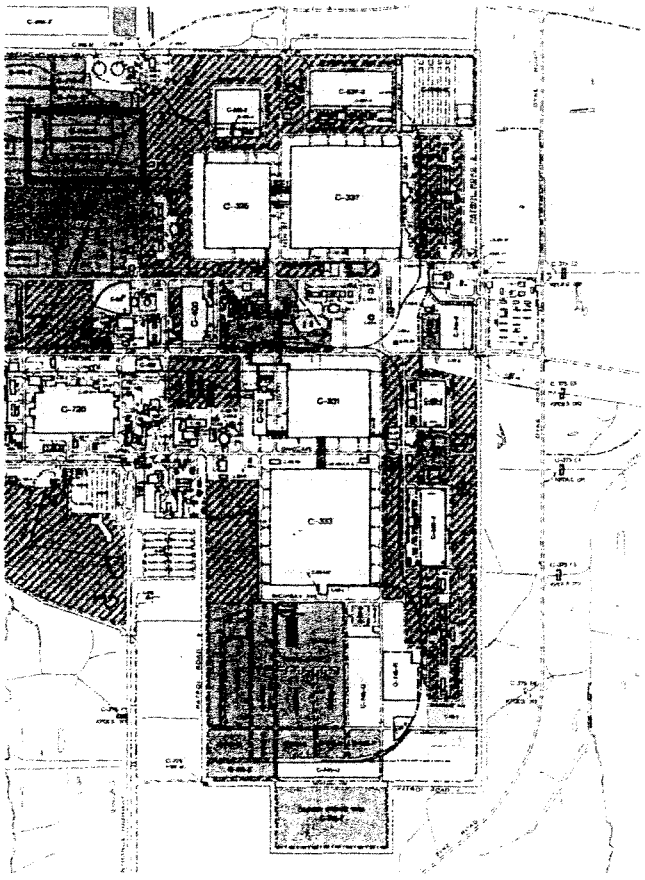
7-12-12

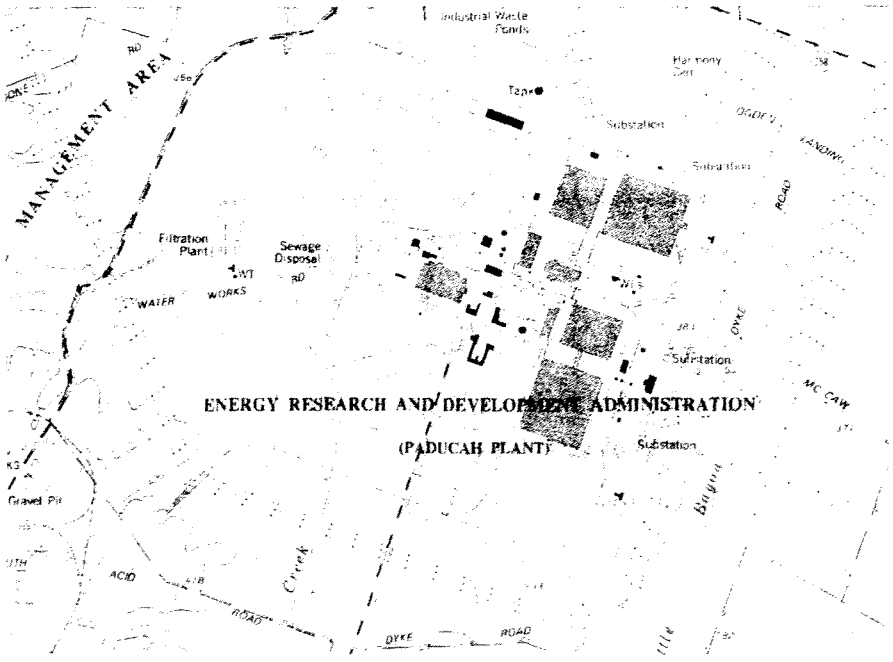
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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C-746-B is a pre-fabricated metal building erected in 1954 with a concrete foundation, a gable roof of crimped steel and exterior walls of steel panels. Except for louvered vents there is no fenestration on the east façade. On the south façade are six garage bays with overhead track steel doors. Adjacent to these doors are solid steel pedestrian doors. The west façade lacks fenestration except for exhaust fans in the gable fields. There is no fenestration on the north façade.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-257
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-G Electrical Equipment Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

OTHER DOCUMENTATION/RECOGNITION:
____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 7 / 4 / 1974 documented

13. DATE OF MAJOR MODIFICATIONS:
____/_____
____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 2400 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____; _____/_____ first
____/_____; _____/_____ second
____/_____; _____/_____ third

. STYLE DEVELOPMENT:
____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

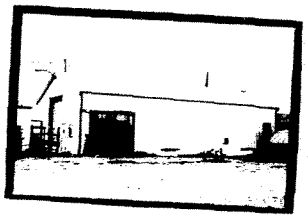
21. ROOF CONFIGURATION/COVERING:

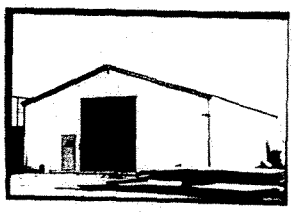
CONFIGURATION	COVERING	
A / side gable	7 / standing metal seam	original
A / side gable	7 / standing metal seam	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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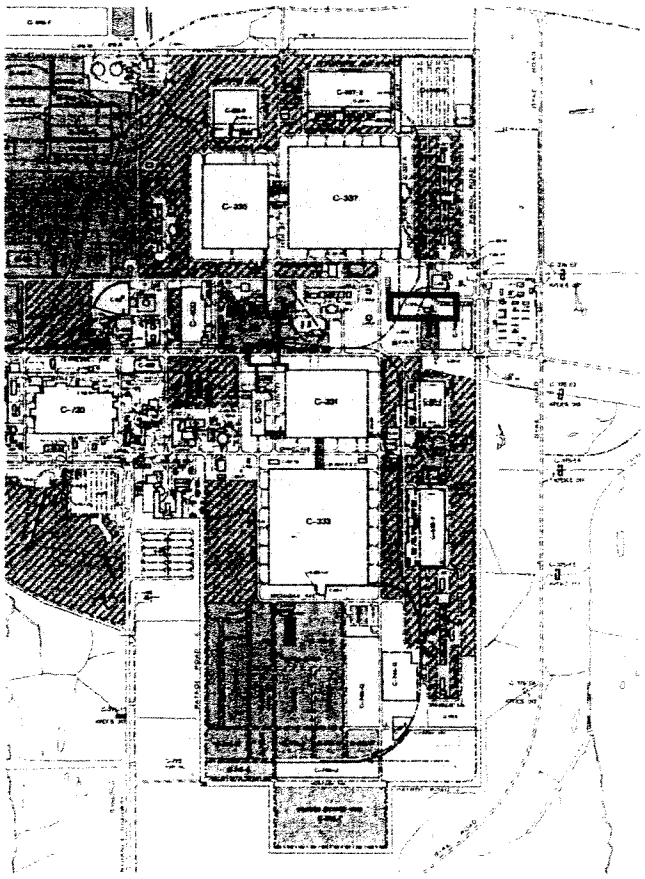
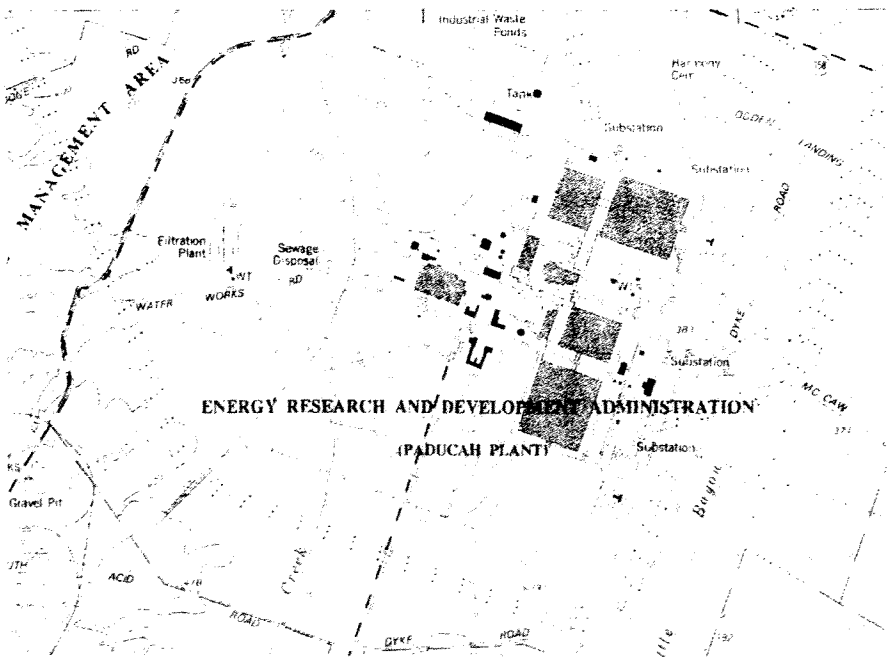
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-746-G is a one-story, pre-fabricated, steel building erected in 1974. It has a poured concrete foundation, a gable roof of crimped steel and exterior walls of steel panels. On the east façade is a garage bay with an overhead track steel door. On the west façade is a similar garage bay entrance and a pedestrian entrance with a single-light, steel and glass door. There is no fenestration on the north and south facades.

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7-12-12

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY [illegible]
RESOURCE # MCN-258
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-L Tractor Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 8 / 5 / 1985 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 364 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____; _____/_____ first
____/_____; _____/_____ second
____/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
B / front gable	7 / standing metal seam	original
B / front gable	7 / standing metal seam	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ ____/ _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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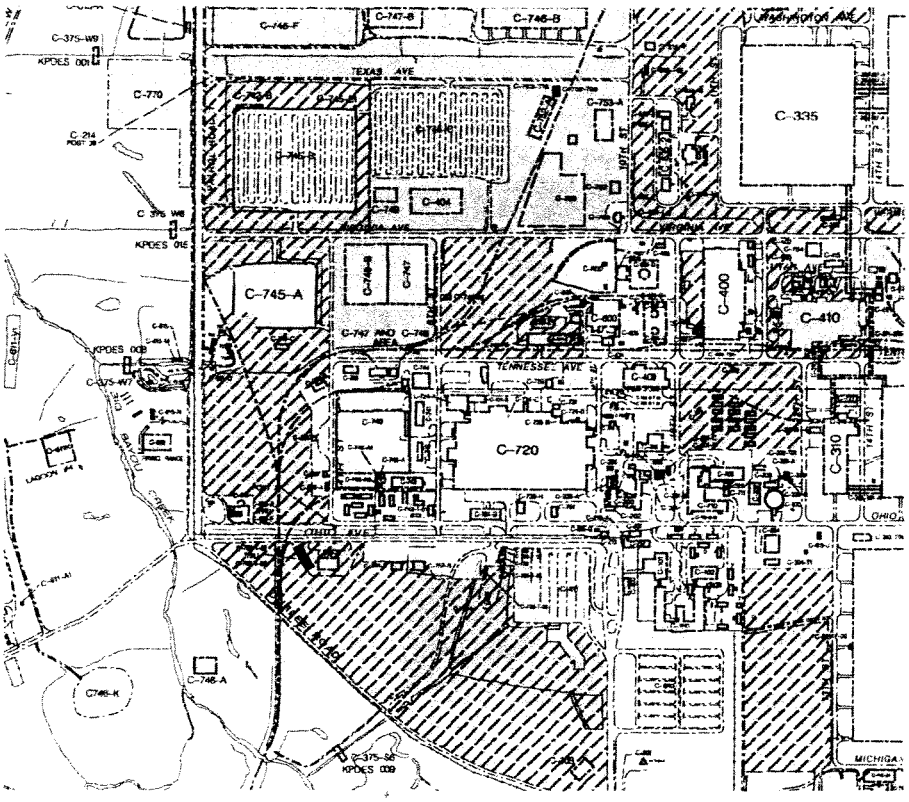
7-12-12

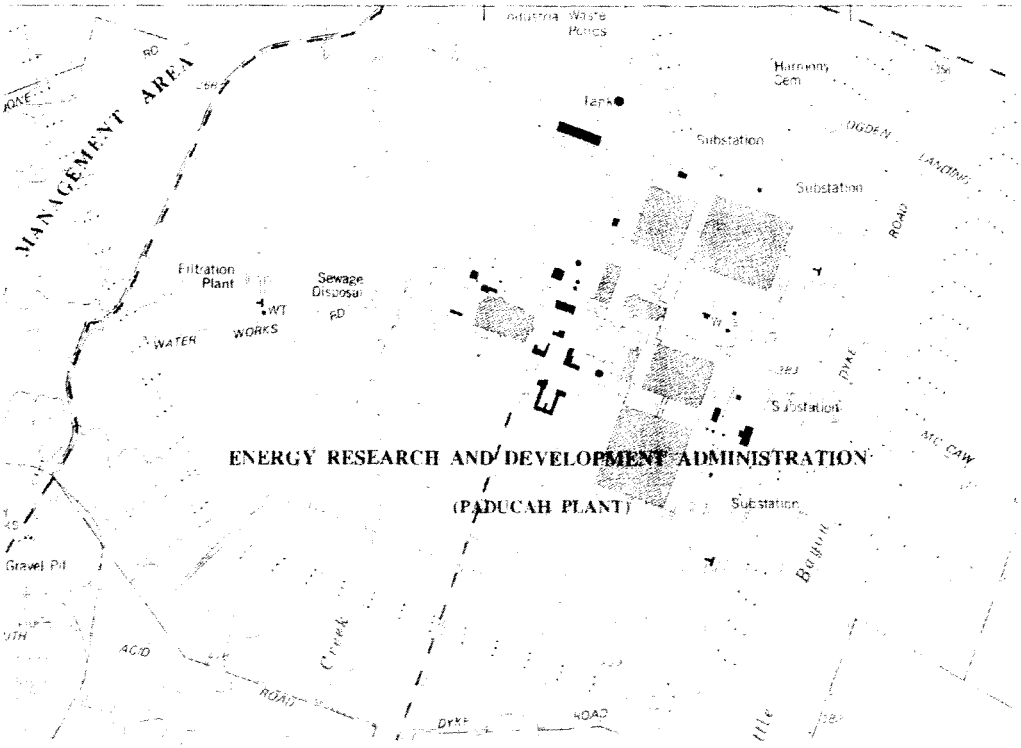
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-17

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels** & **Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

Buildings with less security considerations were designed by the Detroit architectural firm of Smith, Hinchman and Grylls Inc. This firm was founded in 1853 and was a major design company of the 20th century. The company designed many industrial buildings for the automotive industry in Detroit as well as office and residential buildings. In the early 1950s the company was led by a partnership of Morimer Smith, Ted Hinchman, and Maxwell Grylls. The firm remains in business today as the SmithGroup.

The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-746-L is a prefabricated steel building constructed in 1985 for use as a Tractor Storage facility. The building has an exterior of steel panels, a continuous poured concrete foundation and a front gable roof of standing metal seam. The building is open-ended for easy access.

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7-12-12

INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-259
RELATED GROUP # _____
EVALUATION _____
SHPO EVALUATION _____
DESTROYED _____

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-M Waste Uranium Chip Storage Facility

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 1 / _____ estimated
1 / 9 / 7 / 6 / 1976 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 432 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

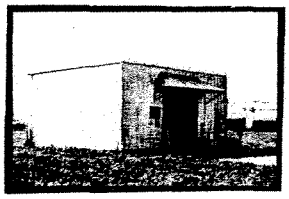
21. ROOF CONFIGURATION/COVERING:

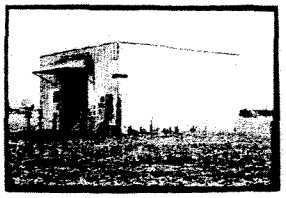
CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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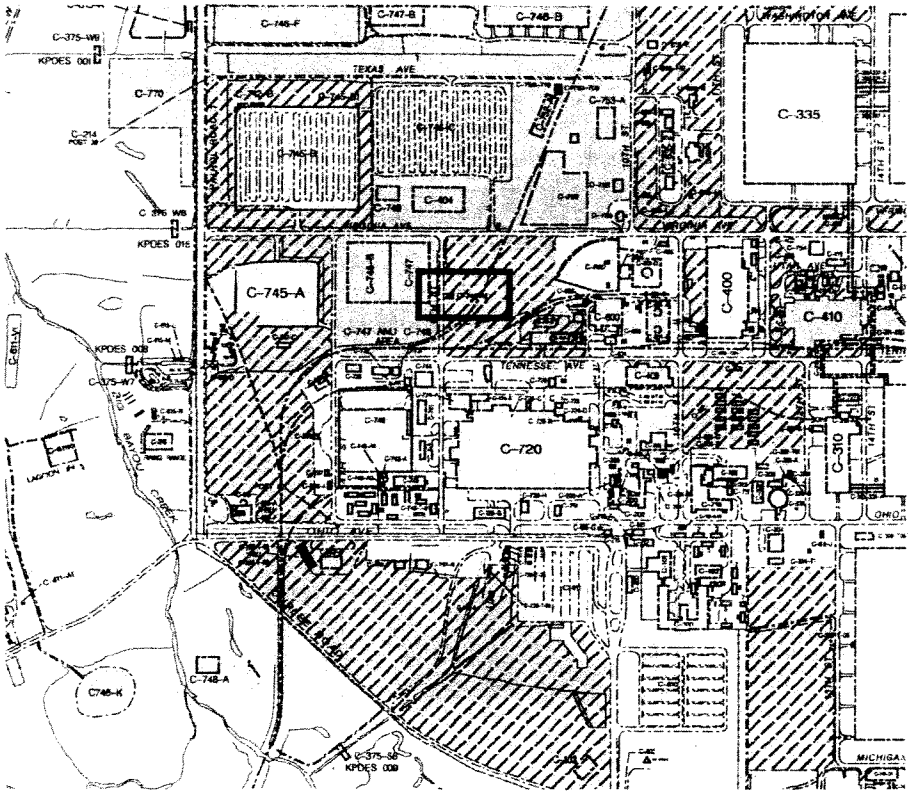
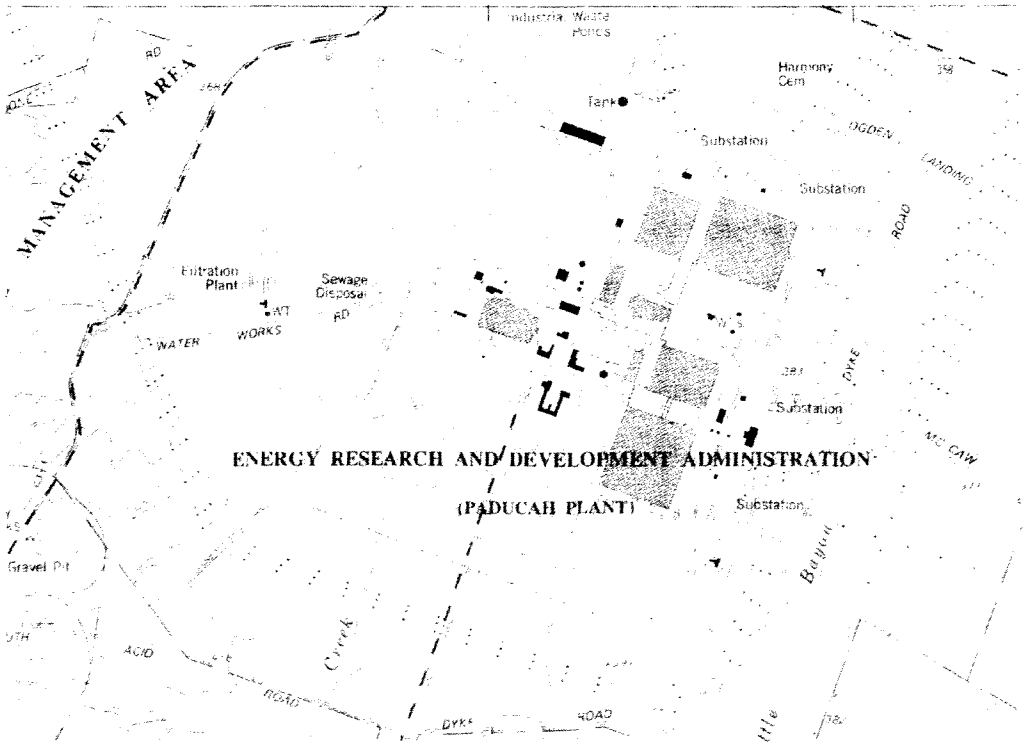
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



OFFICIAL USE ONLY TH 742-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work at various nuclear sites around the country during the late 1940s and early 1950s.

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The buildings are identified by number with the prefix "C." Because of the many projects underway by the AEC during the early 1950s the Paducah plant was referred to as "Kentucky Area C" to distinguish it from projects elsewhere. The "C" prefix continues to be used to identify building locations.

Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations. Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections of the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-746-M is a prefabricated steel building constructed in 1976 for use as a Waste Uranium Chip Storage Facility. The building has a continuous poured concrete foundation, a flat built-up roof and an exterior of steel panels.

~~OFFICIAL USE ONLY~~ 7-12-16

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-260
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-Q Hazardous and LLW Storage Building

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 6 / 5 / 1965 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ / _____
_____ / _____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 33165 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / _____ first
_____ / _____ second
_____ / _____ third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE		MATERIAL		
C	/ continuous	R	/poured concrete	original
C	/ continuous	R	/poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / vertical steel panels original
Q / vertical steel panels replacement

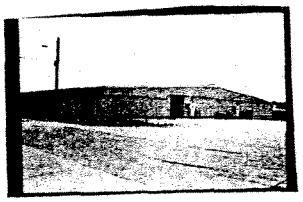
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION		COVERING		
A	/ side gable	8	/ steel panels	original
A	/ side gable	8	/ steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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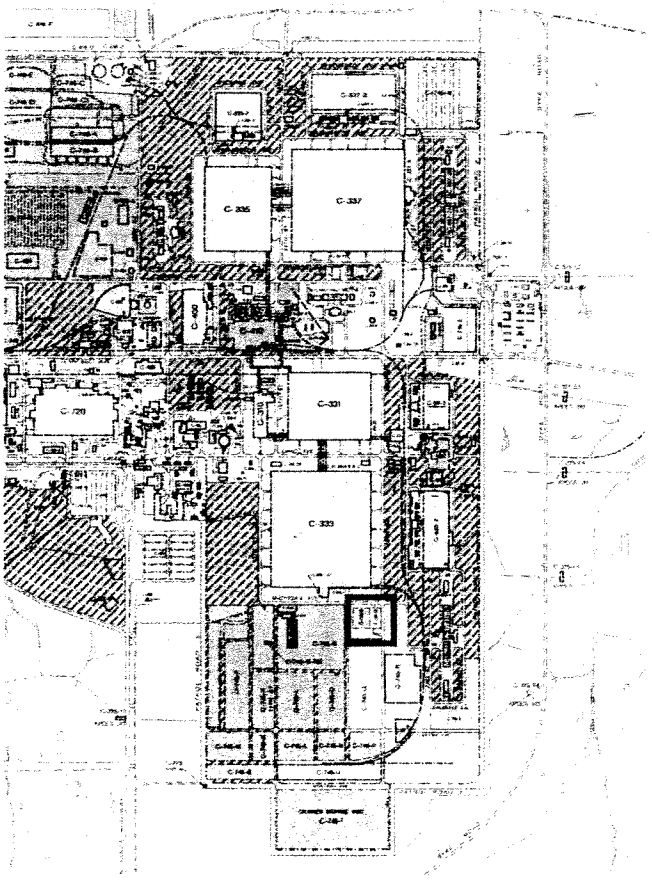
TA 742-12

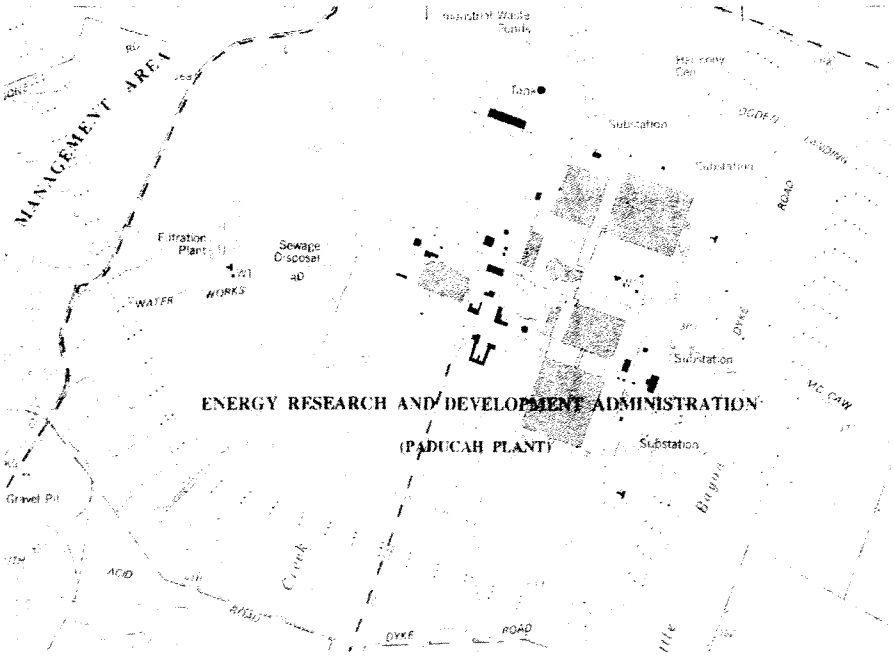
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



~~OFFICIAL USE ONLY~~ TH

7-12-12

PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Building C-746-Q is a one-story, pre-fabricated, metal buildings erected in 1965. It has a concrete foundation, a gable roof of steel panels and exterior walls of vertical steel panels. On the west façade is a garage bay entrance with an overhead track steel door. Also on this façade is a pedestrian entrance with a steel and glass door. On the north façade is a garage bay with an overhead track door and two pedestrian entrances with single-light, steel and glass doors. This façade also has a series of louvered vent openings. On the east façade are two garage bays with overhead track doors and two, single-light, steel and glass pedestrian doors. On the south façade is a garage bay with an overhead track door. This façade also has a series of louvered vents.

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TH
7-12-16

KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-261
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-746-Q1 High Assay Waste Storage Facility

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 6 / 5 / 1965 documented

13. DATE OF MAJOR MODIFICATIONS:
_____ /
_____ /

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 16335 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
_____ / first
_____ / second
_____ / third

17. STYLISTIC INFLUENCE:
_____ / _____ ; _____ / _____ first
_____ / _____ ; _____ / _____ second
_____ / _____ ; _____ / _____ third

18. STYLE DEVELOPMENT:
_____ / first _____ / second _____ / third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

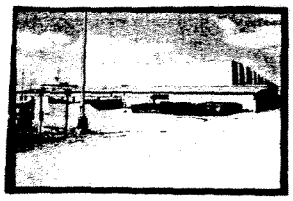
21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
A / side gable	8 / steel panels	original
A / side gable	8 / steel panels	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____ / _____ / _____
Write resource # on back of all prints.



COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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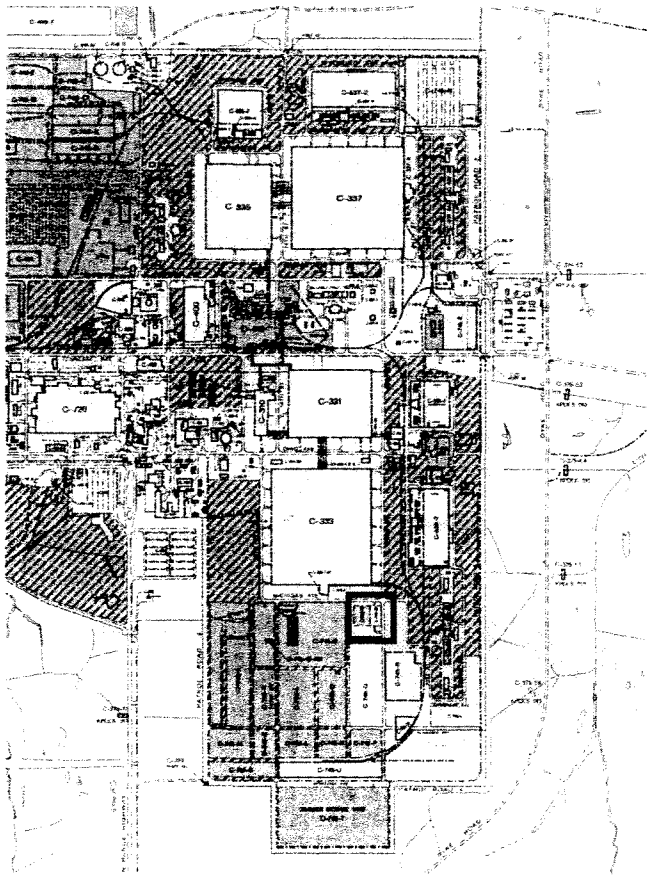
7-12-12

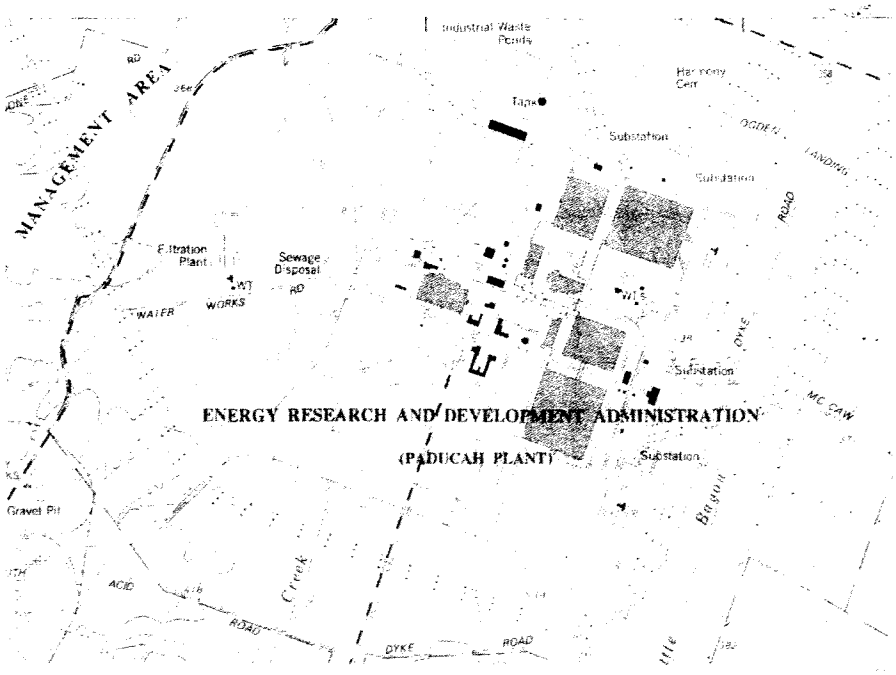
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered).



27. MAP (Scan or attach copy of map showing exact location of resource)



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The firm responsible for the design of the large processing buildings was Giffels and Vallet Inc. of Detroit. This firm was a major subcontractor to the Atomic Energy Commission during the 1940s and 1950s. The firm had a large specialty group of architects and engineers performing a wide range of design and engineering services. During World War II, the firm was responsible for the design and field supervision of numerous buildings and service facilities at the Manhattan Project site in Hanford, Washington. Because **Giffels & Vallet** already had staff with security clearances, they were selected to continue their work a various nuclear sites around the country during the late 1940s and early 1950s.

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Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in th processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections o the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-746-Q1 is a one-story, pre-fabricated, metal building erected in 1965. It has a concrete foundation, a gable roof of steel panels and exterior walls o vertical steel panels. On the west façade is a garage bay entrance with an overhead track steel door. Also on this façade is a pedestrian entrance with a ste and glass door. On the north façade is a garage bay with an overhead track door and two pedestrian entrances with single-light, steel and glass doors. Th façade also has a series of louvered vent openings. On the east façade are two garage bays with overhead track doors and two, single-light, steel and glas pedestrian doors. On the south façade is a garage bay with an overhead track door. This façade also has a series of louvered vents.

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INDIVIDUAL SURVEY FORM
(KHC 2002-1)

RESOURCE # MCN-262
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

For instruction, see the Kentucky Historic Resources Survey Manual.

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-750 Garage

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / _____ estimated
1 / 9 / 5 / 2 / 1952 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / steel and concrete original
X / X / steel and concrete subsequent

15. DIMENSIONS: 11866 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
____/_____ first
____/_____ second
____/_____ third

17. STYLISTIC INFLUENCE:
____/_____; _____/_____ first
____/_____; _____/_____ second
____/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

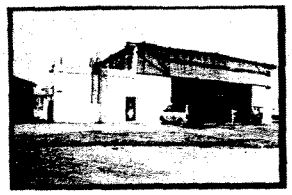
21. ROOF CONFIGURATION/COVERING:

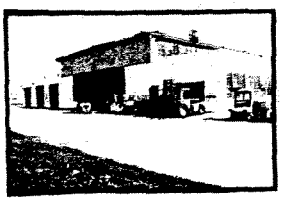
CONFIGURATION	COVERING	
A / side gable	6/7 / built-up/standing metal seam	original
A / side gable	6/7 / built-up/standing metal seam	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/_____/_____
Write resource # on back of all prints.





COMMENTS/HISTORICAL INFORMATION:

The majority of the buildings at the Paducah Gaseous Diffusion Plant were built between 1952 and 1956 when the main processing facilities were placed in operation. The plant's processing buildings contain 74 acres of floor space and the diffusers within the plants have nearly 1,800 enrichment stages. The plant has a design capacity of 11.3 million SWU per year. SWU stands for separative work unit, the industry standard for measuring uranium enrichment services. Customers pay for the number of SWU required to enrich their uranium feed to their specifications.

(SEE CONTINUATION PAGE)

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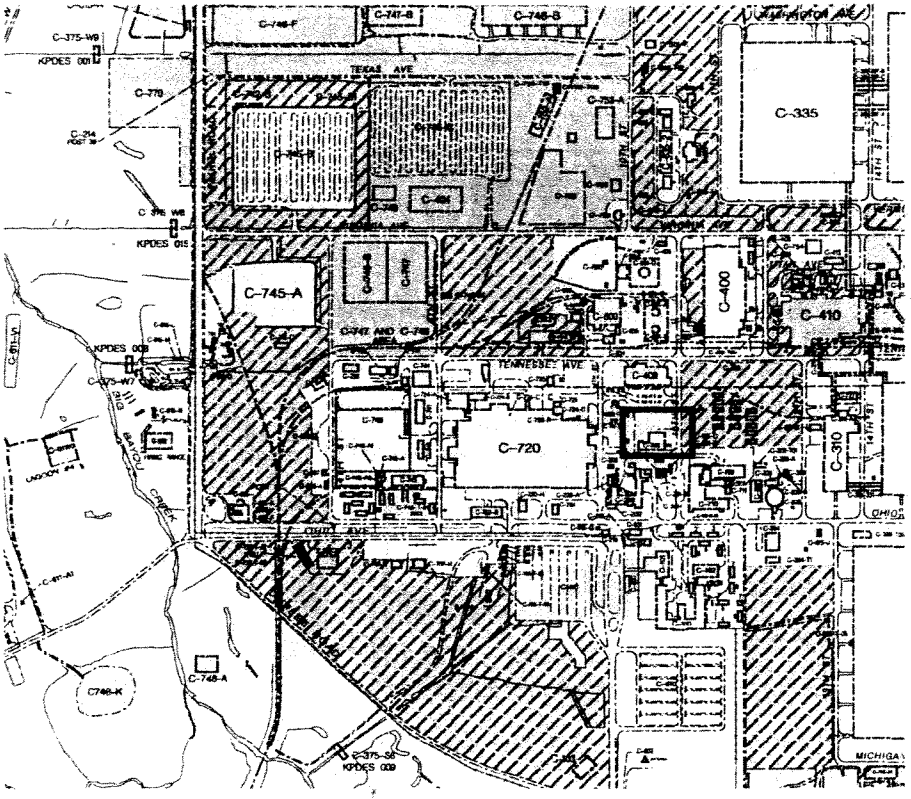
7-12-12

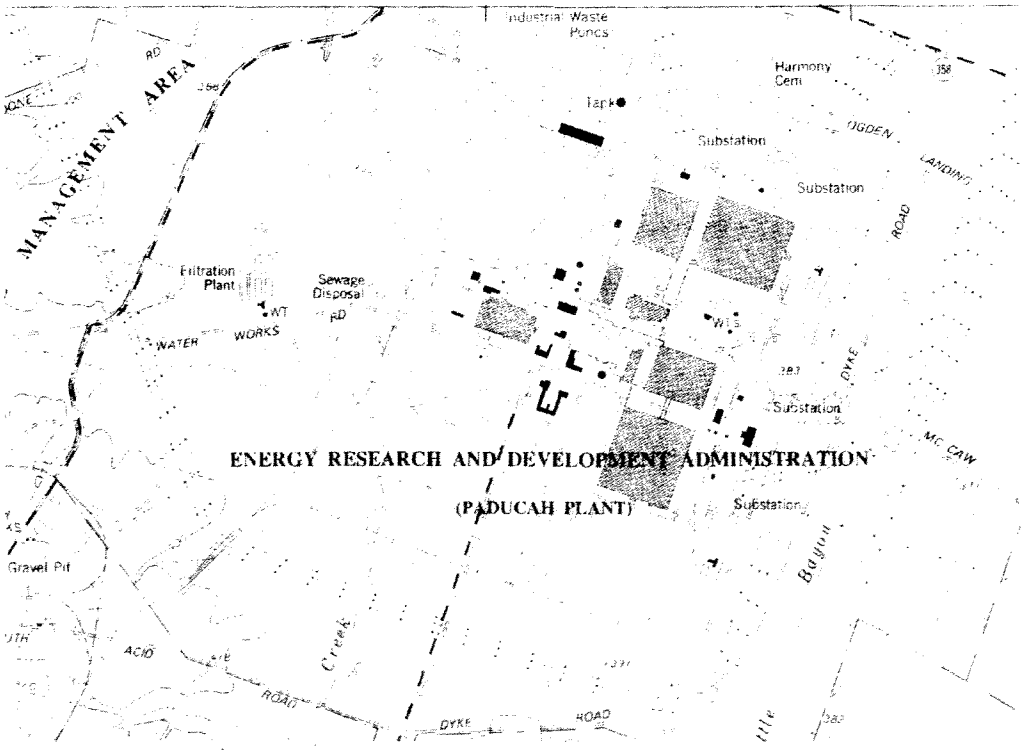
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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PGDP construction spanned 1951 through 1956 and was conducted in two phases. Construction of the first phase began January 2, 1951, and included erection of the following process and production facilities: C-331 and C-333, the gaseous diffusion process buildings; C-410/420, UF6 Feed Plant; C-310, Purge and Product Withdrawal Building; C-315, Surge and Waste Building; and C-300, Central Control Building. The first process buildings, C-331, C-333, C-310, and C-315, were completed and started operation in September 1952, and the first product was withdrawn in November. Authorization to proceed with the second phase of Plant construction was received on July 15, 1952. Two additional enrichment facilities, C-335 and C-337, were added, and construction was completed in 1956.

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Maintenance and Repair Buildings are those which support the installation, refurbishment, cleaning, and daily operations of the uranium diffusers in the processing buildings. They are also those which provide services to maintain other equipment, to support building maintenance, and overall plant operations Building C-400 is one of the most important maintenance building and operations in this facility include the decontamination of process equipment. Sections o the cascade equipment are often replaced and the equipment is cleaned in Building C-400 and then either reused or placed on standby

Building C-750 is a one-story garage built in 1952. The building has a poured concrete foundation, exterior walls of concrete and transite panels and a built up roof and crimped metal. The building is composed of a large garage facility with a three-bay concrete wing on the west façade. The concrete wing has three drive-thru bays with each bay having an overhead steel door. This concrete wing lacks fenestration on the west façade and is attached to the main garage on its east façade. The main garage has a large garage bay on the north façade. This bay has a sliding track metal door. Windows are original, fixed, twenty-four light steel and glass design.

The upper façade of this building is composed of transite panels and there is no fenestration on the upper area of the north façade. The west façade of the building is composed of a large window wall on the lower level divided by the concrete wing. This window wall has eight rows of continuous rectangular steel and glass windows, some fixed while others open in hopper fashion. The upper façade has a continuous window wall of five rows and these windows are fixed with nine, two-light panels which open in an awning design. On the east façade of the building is a continuous window wall with eight rows of windows. These windows are fixed with some hopper design windows on the lower row. On the north façade of this wing is an original two-light steel and pedestrian door. On the east façade of the building is also a fifteen-light steel and glass window with a metal awning. A pedestrian entrance on this façade has a two-light steel and glass door flanked by paired, two-light steel and glass windows.

On the south façade of the building is a large garage bay in the central section of the building. This entrance has sliding track, steel and glass doors. The east concrete wing has a pedestrian door of single-light, steel and glass design and a nine-light steel and glass window. Flanking the garage bay, on this façade, are twenty-four light steel and glass doors. The west concrete wing has three garage bays with overhead track steel doors.

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KENTUCKY HISTORIC RESOURCES
INDIVIDUAL SURVEY FORM
(KHC 2002-1)

For instruction, see the Kentucky Historic Resources Survey Manual.

COUNTY McCracken
RESOURCE # MCN-263
RELATED GROUP #
EVALUATION
SHPO EVALUATION
DESTROYED

1. NAME OF RESOURCE (how determined): 4 /

Paducah Gaseous Diffusion Plant
Building No. C-751 Fuel Dispensing Facility

2. ADDRESS/LOCATION: Located north on County Road 1154 off U.S. Highway 60W.

3. UTM REFERENCE:
Quad. Name: Heath, KY
Date: 1978 / Zone: 16 / Accuracy: A /
Easting: 3 / 3 / 8 / 8 / 5 / 5 /
Northing: 4 / 1 / 0 / 8 / 4 / 7 / 5 /

4. OWNER/ADDRESS: Department of Energy
Paducah Site Office
P.O. Box 1410
Paducah, Kentucky 42001

5. FIELD RECORDER/AFFILIATION: Phil Thomason
Thomason and Associates-Nashville, Tennessee

6. DATE RECORDED: June and July, 2004

7. SPONSOR: Department of Energy

8. INITIATION: 3 / Review and Compliance

9. OTHER DOCUMENTATION/RECOGNITION:
_____ Survey _____ HABS/HAER
_____ KY Land _____ Local Land
_____ NR _____ NHL
Other:
Report Reference

10. ORIGINAL PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

11. CURRENT PRIMARY FUNCTION: 1 / 0 / B /
Industrial/Engineering-extractive facility or site

12. CONSTRUCTION DATE: 2 / 1991 estimated
1 / 9 / 9 / 1 / 1991 documented

13. DATE OF MAJOR MODIFICATIONS:
_____/_____
_____/_____

14. CONSTRUCTION METHOD/MATERIAL:
X / X / prefabricated steel original
X / X / prefabricated steel subsequent

15. DIMENSIONS: 50 ft²
Height 1 story Width _____ Depth _____

16. PLAN:
___/_____ first
___/_____ second
___/_____ third

17. STYLISTIC INFLUENCE:
___/_____; _____/_____ first
___/_____; _____/_____ second
___/_____; _____/_____ third

18. STYLE DEVELOPMENT:
_____/ first _____/ second _____/ third

19. FOUNDATION:

TYPE	MATERIAL	
C / continuous	R /poured concrete	original
C / continuous	R /poured concrete	replacement

20. PRIMARY WALL MATERIAL:
Q / steel panels original
Q / steel panels replacement

21. ROOF CONFIGURATION/COVERING:

CONFIGURATION	COVERING	
Q / flat	6 / built-up	original
Q / flat	6 / built-up	replacement

22. CONDITION: G / in a state of good repair

23. MODIFICATION: 2 / moderate alteration

24. NEGATIVE FILE #: _____/ ____/ _____
Write resource # on back of all prints.

COMMENTS/HISTORICAL INFORMATION:

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(SEE CONTINUATION PAGE)

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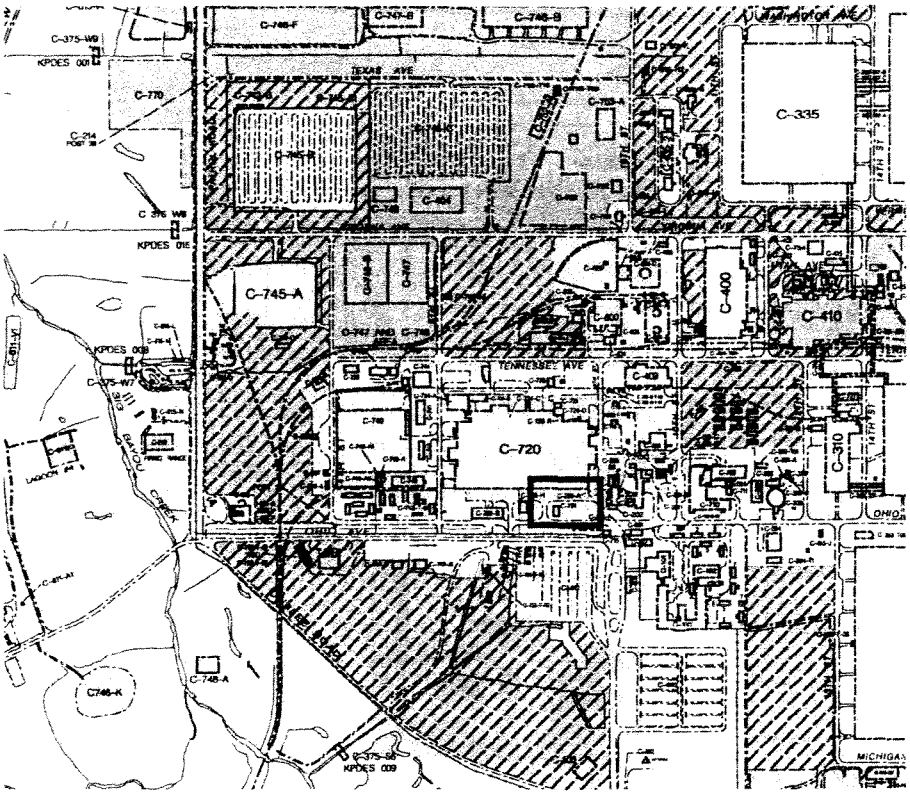
7-12-12

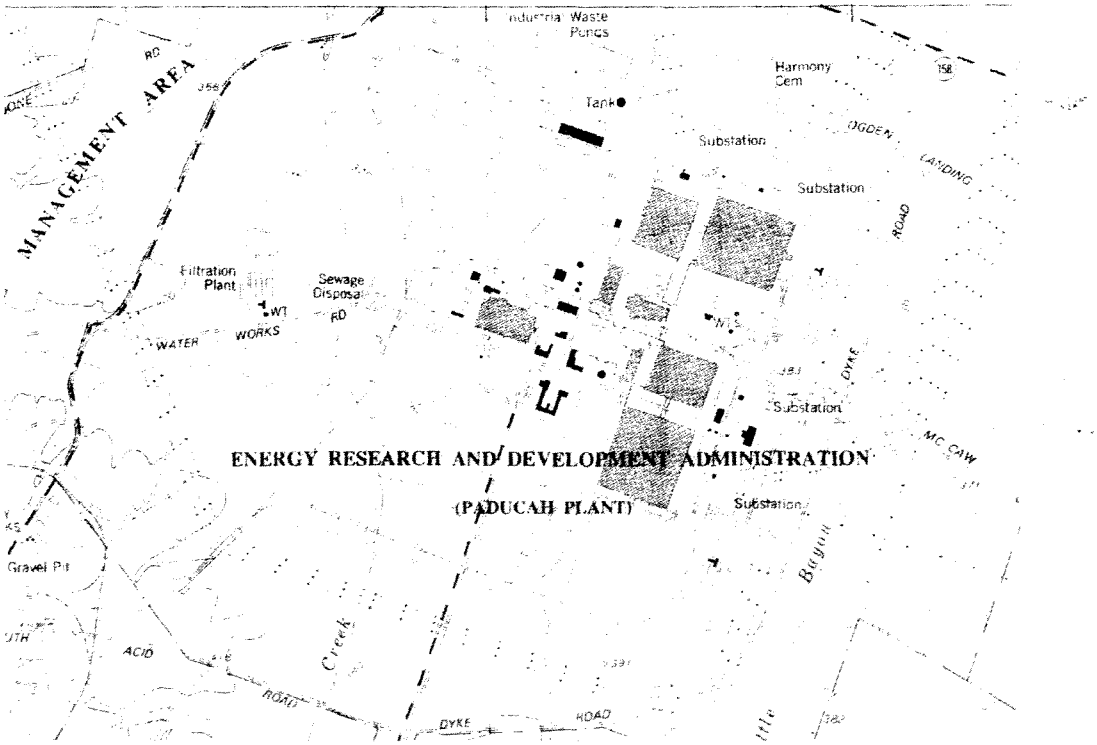
25. SUPPORT RESOURCES: SITE PLAN KEY FUNCTION CONSTRUCTION DATE METHODMATERIAL

NOT APPLICABLE

26. SITE PLAN (Complete if #25 was answered)



27. MAP (Scan or attach copy of map showing exact location of resource)



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7-12-12

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C-751 is a one-story, pre-fabricated steel building erected in 1991. The building has a poured concrete foundation and a flat roof and exterior of steel panels. On the main (south) façade is a steel and glass, single-light door. On the west façade is a two-light, steel fixed window.

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