

6-1955

Industrial Resources: Marshall County - Calvert City

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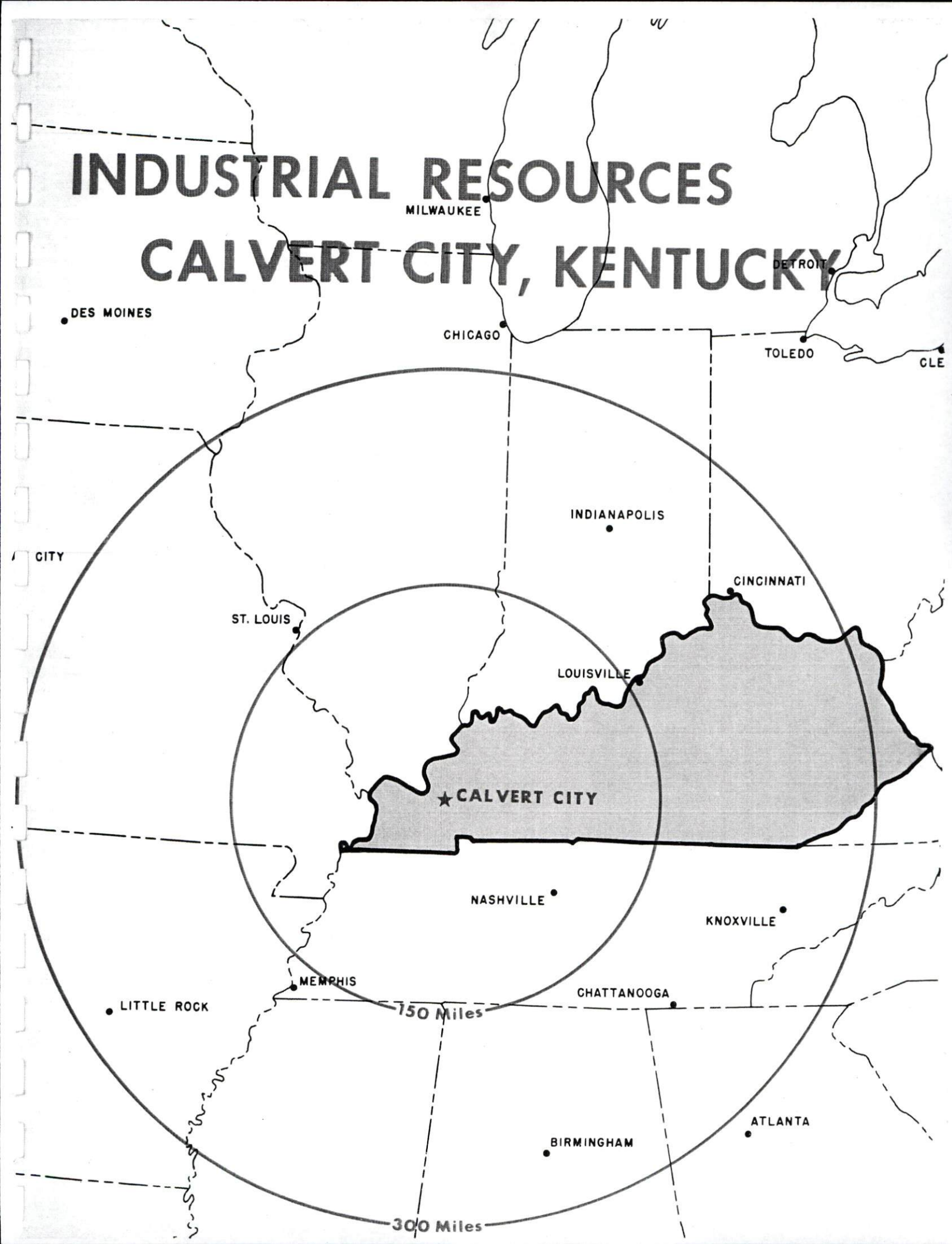
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INDUSTRIAL RESOURCES

CALVERT CITY, KENTUCKY



INDUSTRIAL RESOURCES
CALVERT CITY, KENTUCKY

Prepared by

The Joint Civic Industrial Committee of Calvert City
and
The Agricultural and Industrial Development Board of Kentucky

Frankfort, Kentucky
June, 1955

INDUSTRIAL RESOURCES - CALVERT CITY, KENTUCKY

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SUMMARY DATA FOR CALVERT CITY, KENTUCKY

POPULATION, 1950: Calvert City - 1,250; Marshall County - 13,387.
1954 estimate for Marshall County - 15,815.

CALVERT CITY LABOR SUPPLY AREA: Includes Marshall and all adjoining counties. Estimated number of workers available for industrial jobs in the labor supply area - 7,000 men and 3,500 women. Number of workers available from Marshall County - 700 men and 500 women.

TRANSPORTATION:

Railroads: Illinois Central Railroad. Paducah, 20 miles distant, is served by the Illinois Central; Nashville, Chattanooga, and St. Louis; and the Paducah and Illinois.

Air: Barkley Field, Paducah, served by Delta-Chicago and Southern and Ozark Airlines.

Trucks: Arnold-Ligon, Hayes, Bonifield, Gray & Son.

Water: Tennessee River and Ohio River.

HIGHWAY DISTANCES: From Calvert City

To	Miles	To	Miles
Atlanta, Ga.	394	Memphis, Tenn.	178
Chicago, Ill.	382	New York, N. Y.	1,026
Cincinnati, Ohio	347	New Orleans, La.	586
Detroit, Mich.	538	St. Louis, Mo.	205
Los Angeles, Calif.	2,034	Washington, D. C.	830

UTILITIES:

Electricity: The Tennessee Valley Authority and Kentucky Utilities supply power wholesale to the Jackson Purchase RECC and West Kentucky RECC.

Natural Gas: West Kentucky Gas Company; Texas Gas Transmission Corp.

Water: A municipal water system was completed February, 1955.

Sewerage: A municipal sewerage system was completed April, 1955.

INDUSTRIAL SITES: There are several large industrial sites, with all facilities, available in the immediate vicinity of Calvert City. For further information, contact the National Carbide Company, Calvert City, Kentucky, or the Agricultural and Industrial Development Board, Frankfort, Kentucky.

POPULATION AND LABOR

Population

The 1950 population of Calvert City was 1,250. Table 1 shows population and recent rates of growth in Calvert City, Marshall County, and Kentucky.

Table 1. Population Growth in Calvert City, Marshall County and Kentucky, 1900-1950

Year	Calvert City		Marshall County		Kentucky
	Population	% Increase	Population	% Increase	% Increase
1900			13,692		
1910	124		15,771	15.2	6.6
1920	226	82.3	15,215	- 3.5	5.5
1930	319	41.2	12,889	-15.3	8.2
1940			16,602	28.8	8.8
1950	1,250	291.8	13,387	-19.4	3.5
1954 (est.) ^{1/}			15,815	18.1	-0.03

Labor Force ^{2/}

Definition and Population Trend. The Calvert City labor supply area is defined to include Marshall County and the following adjoining Kentucky counties: Calloway, Graves, Livingston, Lyon, McCracken, and Trigg. This is the geographical area from which workers could be expected to be drawn in large numbers to jobs located at Calvert City.

The area population was 137,755 in 1950, a drop of about 9,000 from 1940. However, it is estimated that population went up by about 33,000 between 1950 and 1953. Most of this population increase was the result of building an atomic energy installation near Paducah, and it is quite likely that the Paducah population has dropped between 1953 and the present.

Marshall County had an estimated 1953 population of 15,666 which was about 1,000 below 1940 but approximately 2,000 higher than in 1950. Between 1940 and 1953, this county had a net outmigration of 3,086 persons. Kentucky had an outmigration of 303,000 in the ten years up to 1950, and the recent increases in manufacturing in the state have not begun to reduce the outflow since that date.

^{1/} Source: Kentucky Agricultural Experiment Station, Population Estimates for Kentucky Counties, June 30, 1954, Lexington, Kentucky, December, 1954.

^{2/} Kentucky Department of Economic Security, Damon W. Harrison, Labor Supply Statement for Calvert City, Kentucky, Area, May 27, 1955.

Economic Characteristics. Agriculture, with 13,300 jobs in 1950, is the greatest source of employment in the Calvert City area. In that year Marshall County had 1,670 employed on farms.

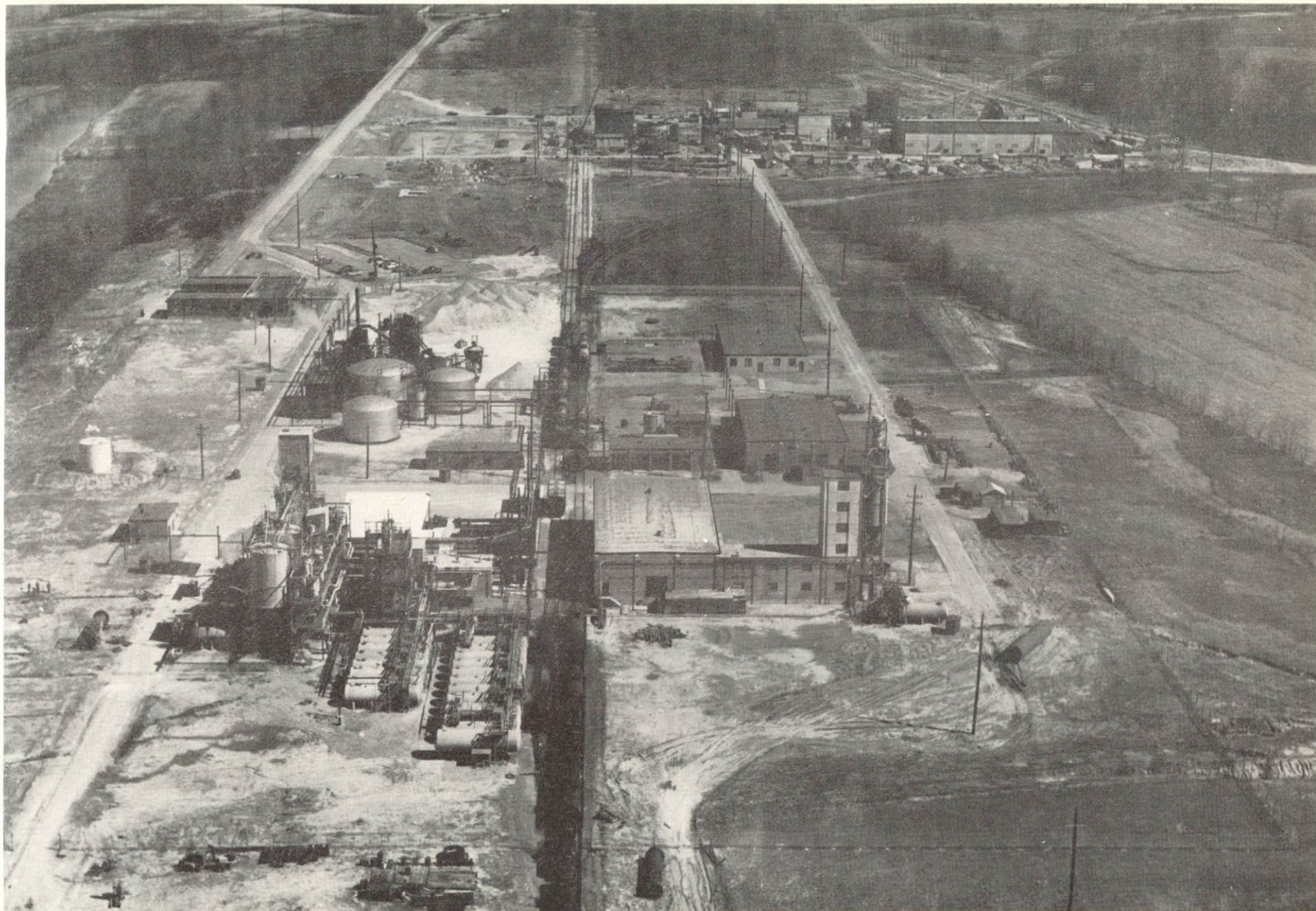
Manufacturing employment in the area totaled 10,150 in September, 1954, with 1,054 of these jobs located in Marshall County. Most manufacturing in the area is concentrated in Graves and McCracken Counties. As shown by the table below, area manufacturing employment has changed little during the past four years. However, employment in Marshall County has jumped sharply since the end of World War II as a result of chemical installations at Calvert City.

Table 2. Covered Manufacturing Employment

	September 1951	September 1952	September 1953	September 1954
Area total	9,900	10,332	11,630	10,155
Marshall County	595	532	1,319	1,054
Calloway County	773	813	1,067	914
Graves County	3,144	3,120	2,955	3,135
Livingston County	7	3	1	0
Lyon County	175	170	220	141
McCracken County	5,025	5,549	5,901	4,768
Trigg County	181	145	167	143

The area farm economy is not uniformly prosperous, as 5,126 out of 13,682 farms had 1949 cash income of below \$600 while 7,072 farms fell in the below \$1,000 class.

There are no comprehensive occupational wage data available for counties in this area. The only readily accessible wage data are average weekly wages in jobs covered by unemployment insurance. During the third quarter of 1954 Kentucky had an average weekly covered wage of \$70.00. Marshall County had an average weekly covered wage of \$86.50, with this high level attributable to the concentration of most of the county's employment in the high paying chemical industry. Average wages in the other counties varied widely, ranging from \$31.13 in Trigg County to \$68.16 in McCracken. In 1953 per capita income payments to individuals were \$1,275 for Marshall County, \$1,187 for Kentucky, and \$1,709 for the United States.



THE PENNSYLVANIA SALT MANUFACTURING CO.

Estimated Labor Supply. There are three major components of the estimated area labor supply: 1) The current unemployed measured by unemployment insurance claimants. 2) Men who would shift from low paying jobs such as farming, and women who would enter the labor force if jobs were available. 3) The future labor supply due to aging of the population and measured by the number of boys and girls becoming 18 years of age during the next ten years.

It is estimated that in the Calvert City area, 7,000 men and 3,500 women could currently be recruited for industrial employment. This total includes 3,600 men and 1,050 women who were claimants for unemployment insurance during the average week in April. Marshall County has about 700 of the men and 500 of the women included in the total area estimate.

It is estimated that 3,200 of the men in the area and 1,500 of the women could be attracted to jobs located at Calvert City on an initial commuting basis. If jobs were especially attractive, larger numbers could be expected to move into the vicinity of Calvert City over a period of years.

In addition to the current estimated labor supply, about 12,000 boys and 11,600 girls in these counties will become 18 years of age during the next 10 years and a large proportion of these will undoubtedly want jobs. Marshall County has about 1,280 of the boys and 1,200 of the girls. It is likely that most of these young job seekers would be available for employment at any spot in the area due to their greater job mobility.

Wages. The range of wages at the four chemical plants are as follows:

Operator first class	\$1.82 - \$2.12
Operator second class	1.94 - 2.02
Operator helper	1.82 - 1.88
Maintenance first class	2.10 - 2.17
Truck driver	1.79 - 1.88
Equipment operator	1.89 - 2.17
Electrician	1.70 - 2.00
Laborer	1.66 - 1.71

Labor-Management Relations. Labor-management relations in Calvert City are described locally as excellent. There have been no crippling strikes in the history of the plants located at Calvert City.

EXISTING INDUSTRY

Firms, Products and Employment

The following list of manufacturing firms indicates something of the demand for labor and products available in the immediate area of Calvert City:

Table 3. Manufacturing Firms, Products and Employment

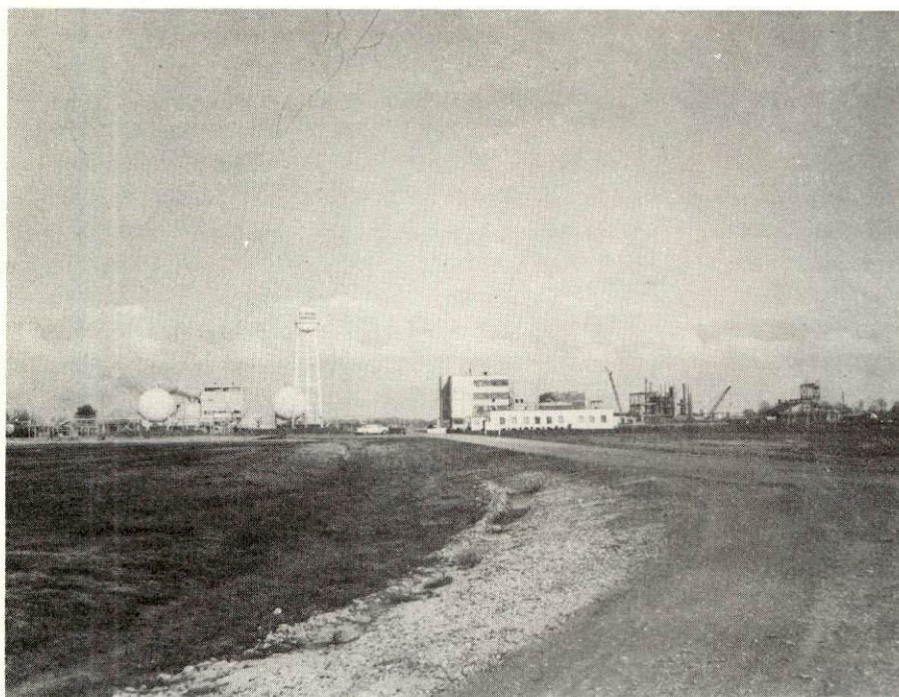
Firm	Product	Employment
National Carbide Co.	Calcium carbide & acetylene	280
B. F. Goodrich Chemical Corp.	Vinyl chloride acrylonitrile	150
Pennsylvania Salt Mfg. Co.	Sulphuric acid, hydrofluoric acid, chlorine, caustic soda, hydrogen chloride and benzene hexachloride	214
Pittsburgh Metallurgical Co.	Ferro-alloys	300-500
Reeds Rock Quarry	Crushed rock	
Calvert City Lumber Co.	Lumber, millwork	
Otto Conn Lumber Co.	Lumber, millwork	
Long Concrete Co.	Concrete	
Air Reduction Chemical	Vinyl acetate monomers	Under construction
General Aniline & Film Corp.	Acetylene derivatives	" "
The American Aniline & Extract Co., Inc.	Polyvinyl alcohol	" "

Location Factors. The unique growth of the Calvert City industrial area is due primarily to the following factors: The Kentucky Dam power generating facilities, availability of raw materials, mineral resources of the area, natural gas, adequate transportation, good sites, nearness to markets and available labor.

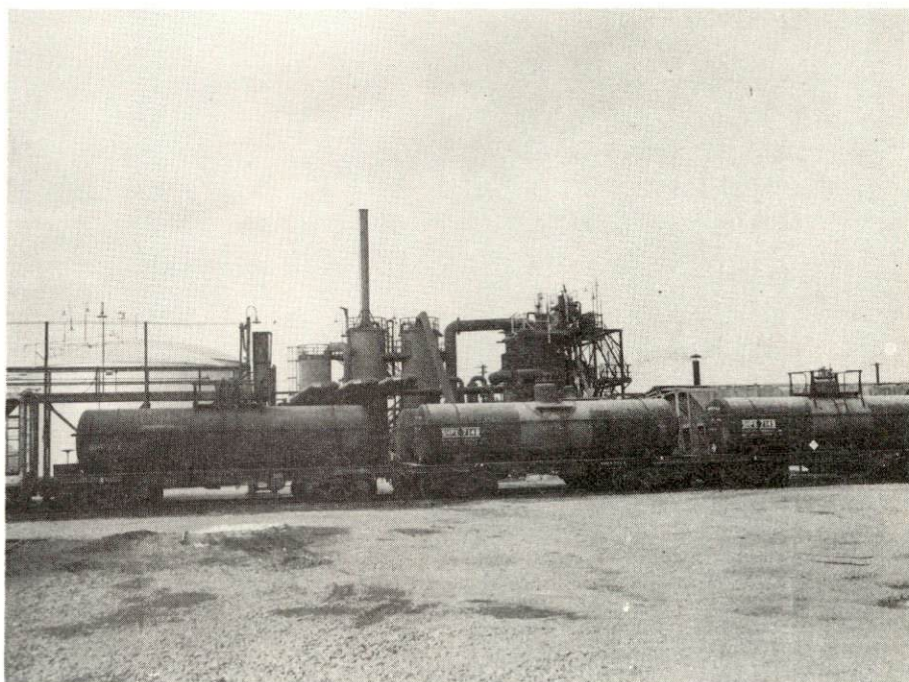
Description of Existing Industry. The following is a brief description of the operations at the four existing chemical plants and the two now under construction. All plants operate on a 24-hour schedule of three eight hour shifts.

The Pennsylvania Salt Manufacturing Co.

The Pennsylvania Salt Manufacturing Company was the first industrial plant to move into the Calvert City area. The plant investment is approximately \$12,000,000 (one of the highest investments per employee in the United



B. F. GOODRICH CHEMICAL COMPANY



PENNSYLVANIA SALT MANUFACTURING CO.

States) and employs 214 men. Located on a site of 791 acres, it is Pennsalt's third largest production unit of a total of twelve U. S. plants. Products include: Sulfuric acid, hydrofluoric acid, chlorine, caustic soda, hydrogen chloride and benzene hexachloride. TVA power is used at a rate of 11,000 KW per hour. Gas is used at a rate of 25,000,000 cu. ft. monthly and water consumption is 10,000 gpm. All cooling water is returned to the Tennessee River.

Raw materials include sulfur and salt, which are barged in, and fluorspar. Calvert City is located only 50 miles from one of the world's largest fluorspar deposits. Pennsalt, while currently purchasing its entire requirements of fluorspar, will obtain by 1956 the greatest portion of its requirements from its own extensive fluorspar holdings in western Kentucky.

Annual production at capacity rates totals almost 150,000 tons.

Pittsburgh Metallurgical Co.

The Pittsburgh Metallurgical Company was the second plant to locate at Calvert City. The plant has an investment of \$14,000,000 and employs up to 500. Located on a site of 150 acres, this plant is the largest of the company's existing ferro-alloy plants. Other plants are located at Niagara Falls, New York and Charleston, South Carolina. Products include: High silicon pig iron, ferrosilicon, high and medium carbon ferrochromium, and other ferro alloys and special metals.

At full capacity 70,000 KW of power are used hourly to operate the ten furnaces. One of the world's largest sub-stations serving private industry is located at Pittsburgh Metallurgical. Operating at 80% capacity, the plant uses 2,900 g. p. m. water for cooling purposes.

Raw materials include coal, coke, gravel, steel scrap and chrome ore. Gravel is procured from Alabama and North Carolina. Coal is shipped in from West Virginia. This is due to an unsuitable analysis of Kentucky coals. Coke is provided by various steel mills which have coke ovens; and chrome ore is imported from Turkey, India, South Africa, Philippines and Rhodesia. Steel scrap is obtained from various states, including Kentucky.

Products are shipped to Chicago, Detroit, Cleveland and Pittsburgh steel mills by barge and rail.

National Carbide Co.

(A Division of Air Reduction Co., Inc.)

National Carbide, the third plant to locate at Calvert City, began operation February, 1953. Since that time the plant has doubled in size to a present \$18,000,000 investment and a payroll of 280 employees.

The production of National Carbide includes calcium carbide and acetylene. One of the important features of the Calvert City area is the availability of pipeline acetylene, that is acetylene delivered by pipeline to customers. B. F. Goodrich uses pipeline acetylene and the new General Aniline and Film plant as well as Air Reduction's chemical plant will use acetylene piped from the National Carbide Company.

Each of National Carbide's four furnaces, described as the largest in the country for making calcium carbide, has an annual production capacity of 75,000 tons.

Enormous amounts of power are used, 120,000 KW hourly; and water for cooling purposes is used at the rate of 8,000 gallons per minute.

Raw materials include: 180,000 tons of coke annually; 290,000 tons of lime annually. These figures represent capacity operation.

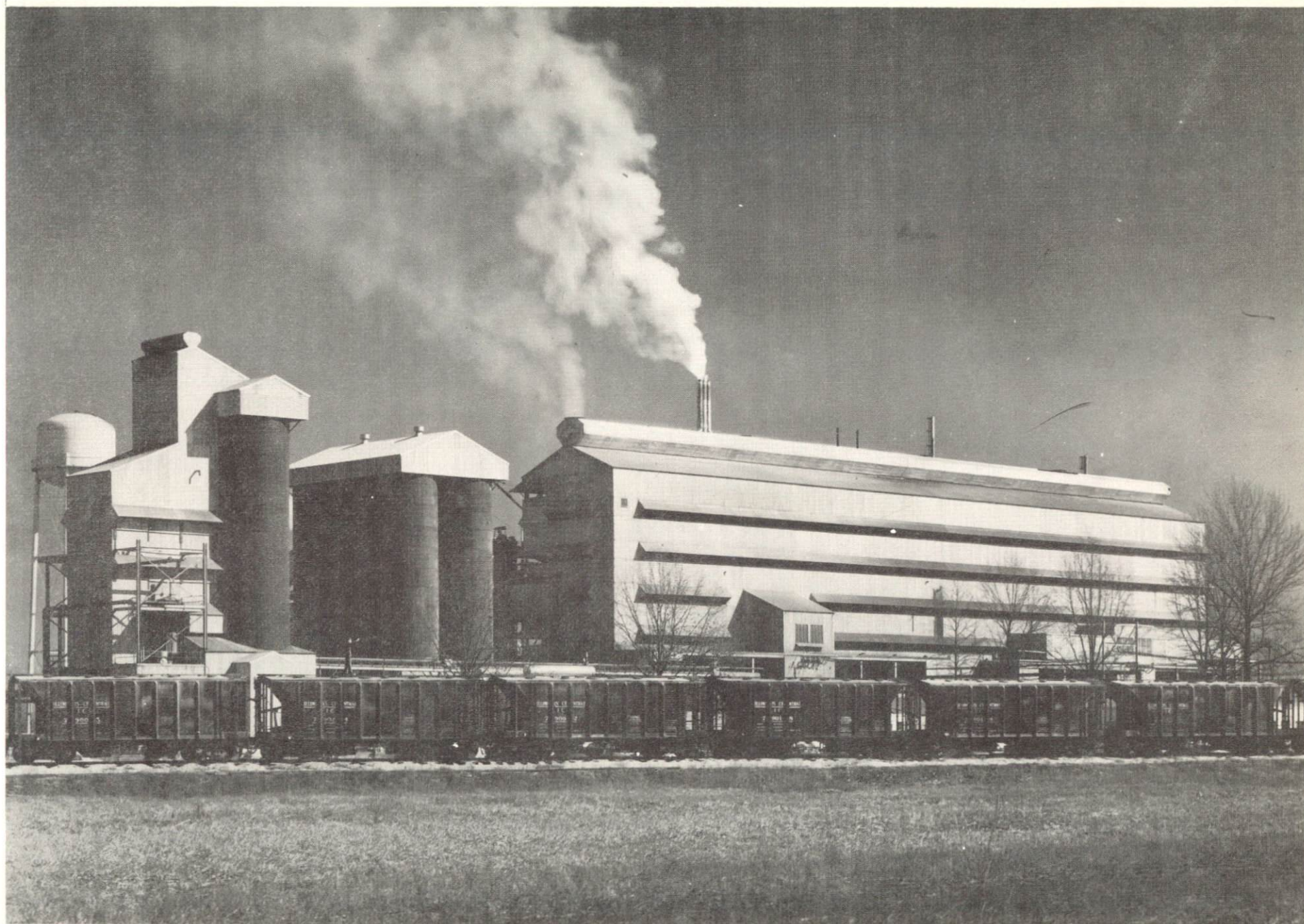
The plant is capable of producing 3,000,000,000 cu. ft. of acetylene annually and approximately 15,000 tons of calcium carbide is shipped out by rail each month.

A recent announcement indicated that a \$3,000,000 addition to the company at Calvert City would bring the total plant investment to \$23,000,000. This addition will be completed early in 1956 and will produce vinyl acetate monomer, which is used in the manufacture of numerous plastics and emulsions.

B. F. Goodrich Chemical Company
(A Division of the B. F. Goodrich Company)

B. F. Goodrich Chemical Company began production in the original plant in February of 1953. During the spring of 1955, a new addition was completed, bringing the total plant investment to approximately \$14,500,000.

The products from these two plants are vinyl chloride and acrylonitrile. Vinyl chloride is made from acetylene, obtained from adjoining facilities of National Carbide, and hydrochloric acid, a part of which is obtained from Pennsylvania Salt Manufacturing Company. The finished product is shipped by tank car to other B. F. Goodrich plants in Avon Lake, Ohio; Louisville, Kentucky; and Mexico City, Mexico, where it is used to produce geon plastics and resins that are eventually used in thousands of the rapidly expanding vinyl plastic products. Acrylonitrile is made from acetylene and other basic chemicals. The finished product is shipped to Avon Lake, Ohio; Akron, Ohio; and Louisville, Kentucky. Acrylonitrile can be used in making oil-resistant rubber, plastics, fibers, soil conditioners, and an increasing number of other chemical products.



NATIONAL CARBIDE COMPANY

Small amounts of power are used; however, relatively large quantities of natural gas, coal and acetylene are consumed daily. Water is used in the processes for cooling and amounts to approximately 14,000 gallons per minute.

The total employment of the two plants is approximately 150 men. Commercial quantities of both vinyl chloride and acrylonitrile are available for other industries.

General Aniline and Film Corporation

A recent addition to the Calvert City chemical family is the General Aniline and Film Corporation. Now under construction is an estimated \$6,000,000 plant which will produce acetylene derivatives, requiring acetylene which will be piped from National Carbide Company and hydrogen which will be procured from Pennsalt. The plant will employ 100 men, and the products will be propargyl alcohol, butynedial, butyrolactone, vinyl-proyxolodone and polyvinylpurrolidone (PVP) which is a blood volume expander. Other PVP uses include film former, binders, stabilizers and detrocifier which include hair lacquers, shaving creams, hand lotions, antibiotics and other pharmaceutical preparations. A unique feature of this new plant will be the use of acetylene reactions under elevated pressures, making available a much wider variety of products than are obtainable by the low pressure methods.

American Aniline & Extract Co., Inc.

The American Aniline & Extract Company, Inc., of Philadelphia, Pennsylvania, announced recently that it has purchased acreage adjacent to the Air Reduction plants at Calvert City, Kentucky, for the construction of a polyvinyl alcohol plant.

American Aniline will receive a basic material, vinyl acetate monomer, by pipeline from the Air Reduction Company plant.

The American Aniline & Extract Company plant will be completed late this year. The polyvinyl alcohols to be produced at this plant will be an important segment of American Aniline's products for the textile, paper and paint trades. Marketed under their trade name of Orthosize, they will be companion products to their Orthocryls, which are polymers of acrylic acid.

Unionization. Unions represented in the area include: Pennsylvania Salt Manufacturing Co. - International Association of Machinists, AFL; National Carbide Co. - United Gas, Coke and Chemical Workers of America, CIO; Pittsburgh Metallurgical Co. - International Union, United Automobile, Aircraft and Agricultural Implement Workers of America, CIO.

TRANSPORTATION

Railroads

Calvert City is served by the Illinois Central Railroad. Paducah, 20 miles distant, is served by three railroads: The Illinois Central; Nashville, Chattanooga & St. Louis; and the Paducah & Illinois.

Rail connections are made to all points within the continental United States. Because Calvert City is located near the geographical center and population center of the country, the rail freight rates are highly competitive and equally distributed with manufacturing costs.

Table 4. Railway Transit Time from Calvert City, Kentucky 1/

To	Arrive	To	Arrive
Atlanta, Ga.	Third AM	Louisville, Ky.	First PM
Birmingham, Ala.	Second AM	Los Angeles, Calif.	Ninth AM
Chicago, Ill.	Second AM	Nashville, Tenn.	Second AM
Cincinnati, Ohio	Third AM	New Orleans, La.	Second AM
Cleveland, Ohio	Fourth AM	New York, N. Y.	Fifth AM
Detroit, Mich.	Fourth AM	Pittsburgh, Pa.	Fourth AM
Knoxville, Tenn.	Third AM	St. Louis, Mo.	Second AM

Highways

Calvert City is served by state routes 95 and 282 and U. S. route 62. U. S. routes 60 and 68 pass within five miles of Calvert City. The transportation map on the next page shows the railroads, major highways, recreation areas, and navigable waterways in Kentucky.

Table 5. Highway Distances from Calvert City, Kentucky

To	Miles	To	Miles
Atlanta, Ga.	394	Lexington, Ky.	260
Birmingham, Ala.	357	Louisville, Ky.	236
Chicago, Ill.	382	Nashville, Tenn.	137
Cincinnati, Ohio	347	New York, N. Y.	1,026
Detroit, Mich.	538	Pittsburgh, Pa.	668
Knoxville, Tenn.	313	St. Louis, Mo.	205

1/ Source: Illinois Central Railroad.



NATIONAL CARBIDE COMPANY
CALVERT CITY, KENTUCKY



SITE OF GENERAL ANILINE & FILM
CORPORATION'S NEW PLANT

Truck Lines. Truck lines serving Calvert City include Arnold-Ligon, Hayes, Bonifield and Gray and Son.

Bus Lines. The Kentucky Bus Line, with three trips each way daily to Louisville via Paducah, serves the Calvert City area.

Airways

The nearest commercial airports are Barkley Field at Paducah, 20 miles, served by Delta-Chicago and Southern and Ozark Airlines. There is also a field for private planes at Kentucky Dam Village, near Gilbertsville, 3 miles distant.

Water Transportation

Calvert City is located on the Tennessee River and approximately 15 miles from the Ohio River. The Ohio River provides access by water to points as far north as Minneapolis, east to Pittsburgh and south to New Orleans and the Intra-Coastal Waterway.

Some of the barge lines operating on the Ohio-Mississippi River system include: The American Barge Line Company, Central Barge Company, Mississippi Valley Barge Line Company, and the Ohio Barge Line, Inc.

These four companies alone have a combined total of 679 vessels in service. The Inland Waterways Map on the next page shows the position of Calvert City with respect to the Ohio-Mississippi River System.

The 1954 session of Congress approved authorization for construction of a \$163,000,000 navigation, power, flood control project for the lower Cumberland River, under jurisdiction of the U. S. Army Corps of Engineers. The project will consist of a high dam, lock and power plant near Grand Rivers, Kentucky, 5 miles from Calvert City, and a canal connecting the reservoir with the existing reservoir on the Tennessee River, created by TVA's Kentucky Dam.

The proposed power plant will have a rated capacity of 130,000 KW and an estimated annual output of 600,000,000 KWH. The lock and dam will replace 5 obsolete locks and dams, will be 110 feet wide by 800 feet long, and will provide a 9 foot navigation channel, permitting use of large, modern barges from such points as Nashville, Tennessee to points along the Ohio, Tennessee and Mississippi Rivers. The reservoir will provide a lake with one of the longest shorelines in the southeastern United States, and open up new opportunities for tourist and recreational development.



UTILITIES

Electricity

Within 60 miles of Calvert City there is more power generated than in any comparable area in the world. The nearby TVA hydroelectric plant at Kentucky Dam, with 5 generators, produces 165,000 KW; the TVA Shawnee steam plant, constructed to supply the Atomic Energy Commission at Paducah, has 10 generators producing 1,500,000 KW; the Joppa steam plant, with 6 generators, produces 900,000 KW. The Joppa plant was constructed by Electric Energy, Inc., a corporation made up of the following private utility companies: Union Electric Company, Missouri; Central Illinois Public Service Company; Illinois Power Company; Kentucky Utilities Company; and Middle South Utilities Company. The TVA Johnsonville steam plant, with 6 generators, produces 900,000 KW. The Kentucky Utilities Green River generating station near South Carrollton, Kentucky produces 150,000 KW.

The Calvert City area draws power mainly from Kentucky Dam, Shawnee and Johnsonville steam plants. All three systems have transmission lines through the area. The four plants, Goodrich, National Carbide, Pittsburgh Metallurgical and Pennsylvania Salt, utilize at full capacity over 200,000 KW hourly; approximately the equivalent demand of a city of 1,000,000 population.

Natural Gas

Calvert City is served by the Western Kentucky Gas Company, which is supplied by the Texas Gas Transmission Company. There are two 24 inch lines which are one-half mile from Calvert City. A \$3,000,000 pumping station, owned and operated by the Texas Gas Transmission Company, is three miles from Calvert City. Rates will be furnished on request by the Agricultural and Industrial Development Board, Frankfort, Kentucky.

Water

A new municipal water system, completed February, 1955, serves Calvert City. The system is planned to serve a city of 15,000 people. The present distribution system includes 40 fire hydrants and 374 connections. Water is taken from a well; however the Tennessee River is only a short distance from the present corporate limits and water could be taken from this source is necessary. Pumping capacity is 250 gallons per minute; treatment capacity 200 g. p. m. with provisions to increase to 400 g. p. m. when needed. Storage is provided by a 75,000 gallon elevated tank. The industrial area is furnished sanitary water by the new city system; however river water is used for industrial purposes. Water rates are as follows:

First 2,000 gallons	\$ 3.50 per month
Next 3,000 gallons	1.00/1,000 gallons
Next 5,000 gallons	.80/1,000 gallons
Next 5,000 gallons	.70/1,000 gallons
Next 5,000 gallons	.60/1,000 gallons
Next 5,000 gallons	.50/1,000 gallons
Next 25,000 gallons	.40/1,000 gallons

The Tennessee River provides a nearby source of water for processing and cooling purposes. The drainage area of the Tennessee River is 40,320 square miles. A chemical analysis of August, 1950, when the mean discharge was 69,000 second-feet, showed the following in parts per million: Total hardness 60; nitrate .5; bicarbonate 67; iron .03; silica .6; ph 8.2; and color 3. 1/

Available industrial sites include several with river frontage. Industries that are not located on the river have made arrangements with those industries that are to provide them with the required amounts of river water.

FUEL

Fuel Oil

Fuel oil is currently being used in carload lots by several of the industries in Calvert City. The fuel oil is transported by truck and rail from Paducah and Baton Rouge, Louisiana. Current prices will be supplied on request by the Agricultural and Industrial Development Board, Frankfort, Kentucky.

Coal

Coal is available from the Western Kentucky coal fields. Current prices will be furnished by the Agricultural and Industrial Development Board, Frankfort, Kentucky.

COMMUNICATIONS

Postal Facilities

Calvert City has a second class post office, with 7 employees. Mail is dispatched and received once daily via a star route to and from Paducah. Postal receipts for 1953 were approximately \$15,000.

Telephone and Telegraph

Telephone service is provided by the Calvert City Telephone Company.

1/ More detailed data available in: Stream Flow Data in Kentucky (USGS, 1950); and Chemical Character of Surface Waters of Kentucky, 1949-51, (Agricultural and Industrial Development Board of Kentucky, 1953).

A new \$425,000 rural telephone system is now being installed and will be among the most modern in Kentucky. A Western Union office at Paducah, 20 miles distant, provides telegraph service.

INDUSTRIAL SITES

The National Carbide Company owns 1,500 acres of industrial land in the immediate vicinity of Calvert City. There are thirteen plant sites now available. Four of these sites have river frontage. Further information can be obtained by writing the National Carbide Company or the Agricultural and Industrial Development Board.

LOCAL GOVERNMENT AND SERVICES

Type Government

Calvert City is governed by a Mayor, elected for four years, and a City Council, elected for two years.

Laws Affecting Industry

Exemption to Industry. As provided by state law, Kentucky cities can allow a five-year property tax exemption, which cannot be extended.

Business Licenses. The city of Calvert City requires a small minimum business license fee to be paid each year for the privilege of owning and operating any business within the city limits. There is no state or county license fee required.

Planning and Zoning. The Calvert City Planning Commission was established in 1951, shortly after the beginning of industrial development in the area. The community leaders at that time had the vision to anticipate that their small farming community had before it a period of rapid physical growth and they were determined that this growth should meet the standards of a modern, efficient and attractive city.

With the assistance of trained city planners, the Commission has developed a long-range plan for future land use, including planned locations for major and secondary streets, schools, park and recreation areas and outlining the general areas for industrial, commercial and residential development.

This plan is being implemented by a comprehensive zoning ordinance and subdivision regulations. The zoning ordinance requires, among other high standards, the provision of off-street parking, adequate land area for each family, and protects industrial districts from residential encroachment. The subdivision regulations require that new residential areas are laid out according to the best neighborhood planning principles with a street pattern which affords adequate major streets for heavy traffic, yet promotes safe, quiet living areas.

The Planning Commission continues to be active in administering the long-range plan and making specific studies and recommendations on problems of the physical development of the city.

City Services

Fire Protection. Calvert City has 20 volunteer firemen. Equipment consists of one 1951 Chevrolet truck and one auxiliary tank truck with pumper. There are 40 fire hydrants with 6" mains and a pressure of 60 pounds p. s. i. Calvert City has an eighth class rating for fire insurance purposes.

Police Protection. The police force is comprised of a City Marshal. Equipment consists of one patrol car.

Garbage and Sanitation. Garbage collection is provided by a private contractor and streets are maintained by private contractors.

Sewerage. A new municipal sewerage system, completed in April, 1955, serves Calvert City. The system is designed for a city of 10,000 and provisions have been made for future extensions as the city increases in size. Sewerage rates are 50% of the gross water bill.

TAXES

Table 6 shows the property taxes applying in Calvert City and Marshall County for 1953-1954.

Table 6. Property Tax Rates per \$100 of Assessed Value; Calvert City and Marshall County, 1954		
	Calvert City	Marshall County
County	\$.70	\$.70
State	.05	.05
City	.35	--
School	1.50	1.50
Total	\$2.60	\$2.25

FUTURE LAND USE PLAN

Calvert City, Kentucky

Prepared By The
KENTUCKY AGRICULTURAL & INDUSTRIAL
DEVELOPMENT BOARD

For The
CALVERT CITY PLANNING COMMISSION

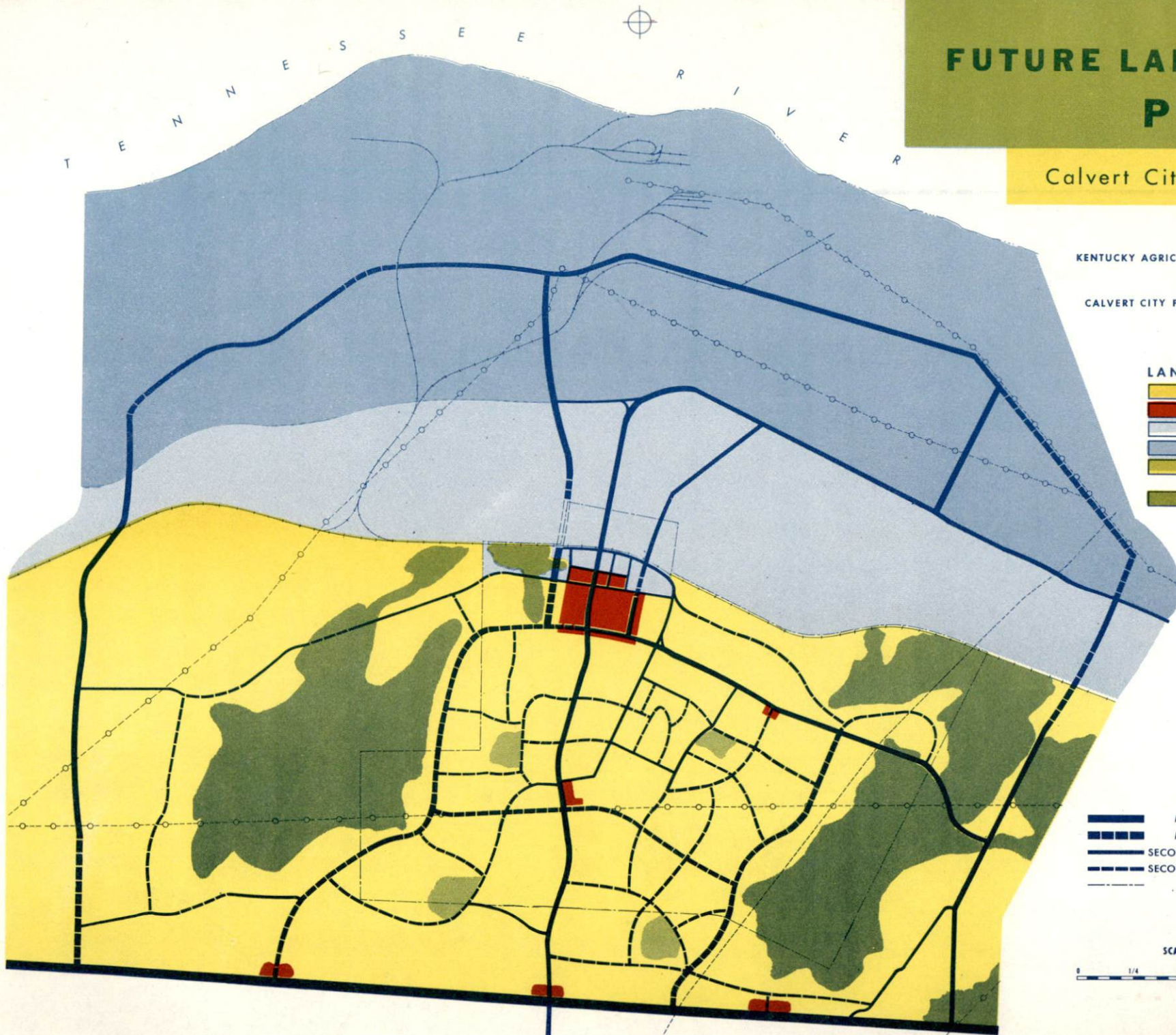
Frankfort—1955

LAND USE AREAS

-  RESIDENTIAL
-  BUSINESS
-  LIGHT INDUSTRIAL
-  HEAVY INDUSTRIAL
-  SCHOOLS
-  FORESTRY
-  AGRICULTURE
-  RECREATION

-  MAJOR STREET EXISTING
-  MAJOR STREET PROPOSED
-  SECONDARY STREET EXISTING
-  SECONDARY STREET PROPOSED
-  CORPORATE LIMITS

SCALE: Miles



<u>Ratio of Assessment.</u>	Calvert City - 35%
	Marshall County - 30%
<u>Total Assessment.</u>	Calvert City - \$569,665
	Marshall County - \$17,536,749
<u>City Income.</u>	\$6,000.00
<u>City Expenditures.</u>	\$5,700.00
<u>City Bonded Indebtedness.</u>	None
<u>County Income, Fiscal Year 1952-53.</u>	\$107,262.94
<u>County Expenditures, Fiscal Year 1952-53.</u>	\$88,966.83
<u>County Bonded Indebtedness.</u>	\$164,500.

LOCAL CONSIDERATIONS

Housing

In Calvert City there are available for purchase approximately twelve to fifteen small frame construction homes ranging in price from \$8,500 to \$12,500. All of these units will appraise by present Federal Housing Administration standards. Each is complete with modern bath and sanitary facilities; the usual fuel for heating being oil.

The city planning commission has recently given tentative approval to two or three new subdivision plats covering the construction of from thirty to sixty new homes in each. As mortgage insurance and financing become available, it is reasonable to assume that new homes will be available at a minimum down payment.

Housing is also available at Benton and Paducah, Kentucky, both within commuting distance of Calvert City.

Health

Hospitals. Nearby hospital service is provided by a private clinic at Benton, Kentucky, 10 miles distant. Facilities include two resident doctors and 10 beds. At Paducah, Kentucky, 20 miles distant, there are three hospitals with a total of 360 beds. In Calvert City there are a total of 3 doctors, 1 dentist and 6 registered nurses.

Public Health Service. In approximately one year a new County Health Center will be built. The Marshall County Health Department carries out a program of sanitation, inspection and preventative medicine.

Education

Graded Schools. Marshall County has a total enrollment of 2,485 students and 74 teachers. The elementary school at Calvert City is now filled to capacity. Expansion plans are now being made.

Table 7. Schools, Enrollment and Student-Teacher Ratio in Calvert City and Marshall County

System	Enrollment	Number of Teachers
City Elementary	395	11
County Elementary	1,263	33
County High School	802	29
Parochial	25	1

Colleges. Colleges in the vicinity include Paducah Junior College, Paducah, 20 miles distant; Murray State College, Murray, 30 miles; Western Kentucky State College, Bowling Green, 135 miles; Wesleyan College, Owensboro, 102 miles.

Vocational Education. Kentucky's vocational education program utilizes thirteen highly specialized regional trade schools, partly integrated with regular secondary education work and partly outside it. These special schools prepare Kentuckians for work in a variety of trade and industrial occupations.

Calvert City is provided vocational education facilities by the Tilghman Trade School of Paducah, 20 miles distant. The courses offered are subject to change as the demand changes.



SHOPPING CENTER AT CALVERT CITY

Libraries

There is no library in Calvert City; however a bookmobile serves the rural areas of Marshall County. At Paducah, public library facilities are made available through the Carnegie Public Library, which has a total of 35,883 volumes.

Churches

The following denominations have churches in Calvert City: Baptist, Catholic, Methodist, Presbyterian, and Church of Christ.

Newspapers, Radio and Television

Newspaper - The Valley Sun, a weekly.

Radio Stations - WCBL, at Benton; WPAD and WKYB, at Paducah.

Television from Cape Girardeau, Missouri is good.

Clubs and Organizations

Clubs and organizations include: Lions, Womans Club, Homemakers, Masons, American Legion, Boy Scouts, Girl Scouts, 4H Club, Cub Scouts, Brownies, F. H. A., F. F. A., West Kentucky Development Association and The Joint Civic Industrial Committee.

Recreation

Area recreation facilities include Kentucky Dam Village State Park in Western Kentucky, 3 miles east of Calvert City. The entire park area is located on Kentucky Lake at Kentucky Dam. The dam, constructed by the Tennessee Valley Authority, is the greatest of the TVA projects. It impounds the waters of the Tennessee River to form 184-mile long Kentucky Lake, with 2,300 miles of shoreline. The unrestricted waters of the lake abound with fish. Operated under park supervision are the following facilities: Two boat docks; a large sand beach, developed for swimming, with shallow wading areas for children; a modern bath house; lodge rooms and housekeeping cottages; air-conditioned park dining room, soda fountain, coffee shop, and commissary; 18-hole golf course, badminton, tennis and croquet courts; and the Village Playhouse for summer theatrical productions. In addition, there are numerous picnicking areas throughout the park. Grills, tables and benches are easily accessible by automobile.

At Kentucky Dam Village there is a fully accredited airport and flying service within the park area. The park airport has a 3,000 foot paved runway and a 3,500 foot graded runway.

South of Kentucky Dam Village, on U.S. Route 68, is Cherokee State Park and Kentucky Lake State Park. These parks offer boat dock, cottages, dining room, beach, swimming, bath houses, cottages, picnic areas and fishing. At Kentucky Lake State Park is the beautiful Kenlake Hotel.

Bank

The Calvert Bank, with total deposits of \$938,575 and total assets of \$1,001,344.

Retail Businesses and Service Establishments

A new shopping center was recently completed and opened near the business district of the community. Housed in this modern building are the bank, post office, city offices, super market and variety store. Ample offstreet parking facilities are provided to insure customer convenience.

A department store, furniture store, drug store, hardware, appliances, several small groceries, jewelry store, two garages, two lumber companies, several service stations and two restaurants provide shopping and service facilities to a large trade area.

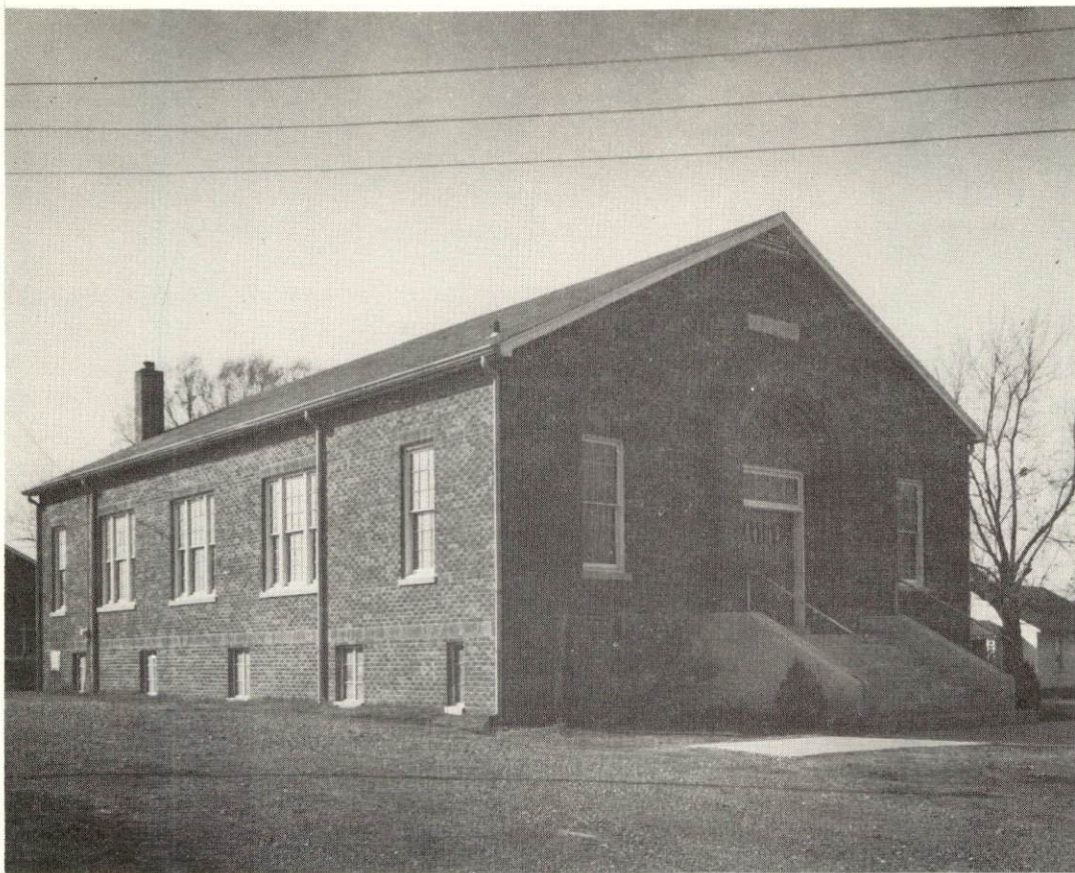
Several smaller service establishments include a coal yard and a dry cleaning plant.

Expansion and improvement in the shopping and trade centers has taken place during the past several months. Additional expansion is now in the blueprint stage, and other improvements are anticipated in the very near future.

RESOURCES

Agricultural Products

In 1950 Marshall County had 1,981 farms with a total acreage of 151,623, an average of 76.5 acres per farm. The portion of farm land in crops is 97,928 acres, or 65 percent. The 1950 Census listed 1,711 farms with pasture lands amounting to 47,647 acres. The largest source of farm income is from corn, hay, livestock and milk.



CALVERT CITY CHURCHES



Table 8. 1951 Agricultural Statistics for Marshall County

Crops	Acres	Yield Per		Farm Value (dollars)
		Acre	Production	
Corn (bu.)	21,000	29.0	609,000	1,060,000
*Tobacco (all types)(lbs. *	1,325	*891	*1,181,000	*299,000
Wheat (bu.)	1,010	14.5	14,600	31,000
Soybeans (bu.)	300	18.5	5,600	15,500
Alfalfa Hay (tons)	220	1.90	420	11,500
Clo-Tim Hay (tons)	1,110	1.15	1,280	39,000
Lespedeza Hay (tons)	9,000	1.20	10,800	277,000
No. on Farms				Farm Value
Jan. 1, 1951				(dollars)
Livestock				
All cattle and calves		8,300		1,038,000
Milk cows		3,900		624,000
Hogs and pigs		10,500		283,500
Sheep and lambs		530		12,800
Chickens		89,600		98,600
				Farm Value
Livestock Products			Production During 1950	(dollars)
Eggs (doz.)			923,600	309,400
Milk (lbs.)			15,549,000	575,000
Wool (lbs.)			2,900	1,600

*1950 figures. 1951 figures incomplete.

Forests

In Marshall County there are 68,000 acres of forested land which cover 35% of the total land area. The principal types of trees are: Oak, hickory, yellow poplar and sweet gum. In 1947 there were 19 sawmills that produced 2,224,000 board feet of lumber.

Kentucky's forests are one of its largest resources. Both the amount of timber cut and the proportion used in manufacture within the state could well be increased. The total annual net growth of Kentucky forests is substantially greater than the amount of drain, and less than one-quarter of the lumber, veneer and bolts produced (611 million board feet in 1948) is used in manufacture in the state.

Mineral Resources of the Paducah Region. For this report, the Paducah Region is regarded as the area shown by the map on the following page. It contains about 9,280 square miles.

The principal minerals of the region are: Coal, fluorspar, lead and zinc, clay, oil, limestone, sands and gravel, molding sand, glass sands, chert, lignite, and iron.

Coal - The coal areas of the northeastern and northern portions are parts of the Western Kentucky and Illinois Coal Fields, respectively. Coals from each field are readily available to all parts of the Region.

Production: The Western Kentucky and Illinois Fields together produce about 75 million tons of coal annually.

In the Western Kentucky Field, the largest producing counties are Hopkins, Muhlenberg, and Ohio. In the Illinois Field, Christian, Franklin, Fulton, Williamson, Perry, and Saline are the leading producers. The principal producing seams are:

Western Kentucky

No. 14
No. 12
No. 11
No. 9
No. 6

Illinois

No. 7 (Danville)
No. 6 (Herrin)
No. 5 (Harrisburg, Springfield)
No. 4 (Summum)
No. 2 (LaSalle, Colchester)
Murphrysboro (formerly called No. 2)
No. 1 (Rock Island)

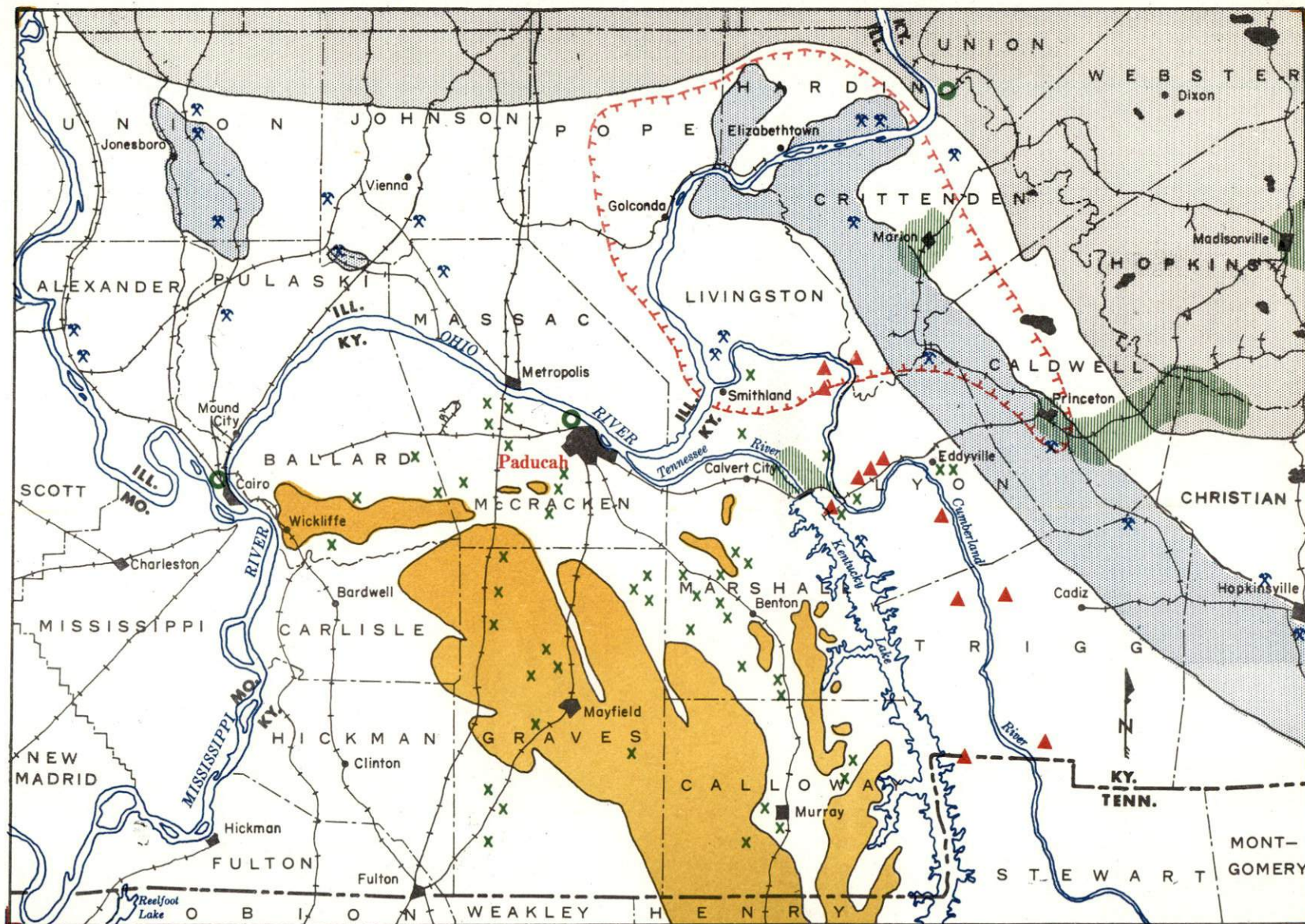
Most of the coal from each field is produced by slope, shaft, and strip mines. The bulk of production comes from rail mines which in 1951 produced 58,721,554 tons.

Quality: Coals from the Western Kentucky and Illinois Fields are bituminous in rank and belong to the high volatile groups A, B, or C. 1/ Western Kentucky coal averages about 10.2 percent ash and 7.7 percent moisture. 2/ Sulphur content for the major seams reportedly runs under 3 percent. Illinois coal averages higher in ash and moisture, 2/ and is of somewhat lower quality. Typical analyses of coals from each field are given below.

1/ High volatile A - Heating value of 14,000 B.t.u. or more, moist basis
High volatile B - Heating value of 13,000 to 14,000 B.t.u. moist basis
High volatile C - Heating value of 11,000 B.t.u. or more and less than 13,000 B.t.u. moist basis

2/ Averages taken from hundreds of analyses made by the U. S. Bureau of Mines

MINERAL RESOURCES of the PADUCAH REGION



- Fluorspar district
- Coal areas
- Clay (Ball, Sagger, Wad, areas)
- High calcium limestone belts
- Glass sand areas

0 5 10 20 30 Miles

Compiled by
KENTUCKY AGRICULTURAL & INDUSTRIAL DEVELOPMENT BOARD
for
PADUCAH ASSOCIATION OF COMMERCE
1953

SOURCE - KY. GS, ILL. GS, USGS, USC & GS

- Oil pools
- ▲ Iron ore deposits
- ✕ Limestone quarries
- ✕ Bank or creek gravel deposits
- River sand & gravel operations

Table 9. Typical Analyses of Western Kentucky and Illinois Coals

Seam Sampled	Location of Sample (County)	Moisture	Volatile Matter	Fixed Carbon	Ash	Sulphur	B. t. u.	Ash Softening Temp. of F.
Western Kentucky Coal Field 1/								
No. 14	Hopkins	7.7	36.8	49.2	6.3	2.2	13,290	2380
No. 12	Webster	5.7	35.4	52.0	6.9	1.2	14,050	2370
No. 11	Hopkins	7.4	39.4	45.9	7.3	3.7	13,420	1950
No. 9	Ohio	6.2	38.7	45.9	9.2	3.1		
No. 6	Union	3.8	37.0	49.9	9.3	3.6	14,450	1990
Illinois Coal Field 2/								
No. 7	Bureau	17.7	32.3	36.5	13.5	3.2	9,740	2040-2160
No. 6	Christian	12.7	37.0	40.1	10.2	3.9	10,863	1920-2090
No. 5	Saline	6.5	34.3	50.5	8.7	2.7	12,390	1945-2170
No. 4	Knox	15.0	38.0	39.3	7.7	3.9	11,220	
No. 2	LaSalle	14.2	38.4	39.0	8.4	4.2	11,070	1850-2035
Murphrysboro	Jackson	9.2	33.9	51.2	5.7	1.3	12,510	
No. 1	Fulton	11.2	38.4	40.2	10.2	5.0	11,470	

Fluorspar, Lead and Zinc - The Paducah Region contains the world's largest fluorspar producing area. This is the Kentucky-Illinois Fluorspar District, (Map). It covers an area of approximately 700 square miles in portions of Livingston, Crittenden, and Caldwell Counties, Kentucky, and Hardin and Pope Counties, Illinois. In 1949, fluorspar shipments from domestic mines throughout the United States totaled 236,704 short tons. Of this total, about 184,319 short tons, or 78%, came from the Kentucky-Illinois District, 3/

Small amounts of lead and zinc are produced in the Kentucky-Illinois Fluorspar District, as by-products. In 1949, lead production amounted to 4,011 tons, valued at \$1,267,476, and zinc production totaled 19,092 tons, with a value of \$4,734,816. 3/

Clays 4/ - Clays constitute one of the Region's most valuable resources. A wide variety of types are present. Uses range from high grade ceramics manufacture to ordinary brick manufacture. The most important deposits occur in the Jackson Purchase (the portion of Kentucky west of the Tennessee River). Valuable and extensive deposits also occur in Southern Illinois. Ordinary brick clays are common throughout the Region.

1/ Technical Paper 652, U. S. Bureau of Mines

2/ Keystone Coal Buyers Manual, 1951

3/ 1949 Minerals Yearbook, U. S. Bureau of Mines

4/ Includes only clays of the Kentucky and Illinois portions of the Paducah Region

Clays of the Jackson Purchase: These include ball, sagger and wad clays, refractory bond clays, bleaching clays and common clays. Loess deposits, suitable for common brick and tile manufacture, are also available. The ball, sagger and wad clays are of national importance. They occur as lenses in the Holly Springs and Grenada formations (Tertiary) and Ripley formation (Cretaceous) ^{1/} and are mined extensively in the vicinities of Viola, Hickory, Mayfield and Pryorsburg in Graves County. Of major importance are the ball clays, which in Kentucky are found only in the Purchase Region. They are used in the manufacture of white wares, porcelains, enamels, abrasives, special glass refractories and many other ceramic products. Their high quality is reflected by the data given below, Table 10. Kentucky is the second largest ball clay producer in the nation. In 1949, the state produced 89,281 tons, valued at \$1,076,531. ^{2/}

Table 10. Data on Kentucky Ball Clays ^{3/}

GRADE CLAY	Old Mine No. 4	Special Ball	No. 12 Black	K-T Ivory Ball
Crude Appearance	Brown	Black	Black	Brown
Physical Analysis:				
% Residue 120 Mesh	.08	.59	.45	Trace
Character of Residue	Lignitish	Lignitish	Lignitish	Siliceous
% Water of Plasticity	45.7	61.7	60.2	40.0
% Linear Dry Shrinkage	6.6	7.8	7.8	5.5
Total Shrinkage Cone 5-6	14.6	13.5	13.5	9.3
Total Shrinkage Cone 12	17.2	19.5	20.2	14.0
% Absorption Cone 5-6	8.7	15.0	16.2	17.2
% Absorption Cone 12	.45	.14	3.6	6.4
	White Cream	White Cream	Cream White	Ivory
Overfiring Point		- All Above Cone 15-		
P. C. E. Value	32	33	32	31
Av. Bonding Modulus	457	676	533	320
Chemical Analysis:				
Silica	51.65	48.29	47.39	57.93
Alumina	31.24	29.64	30.98	26.43
Titanium Oxide	1.72	2.33	1.69	2.37
Iron Oxide	1.17	.95	1.06	.69
Calcium Oxide	.20	.28	.16	.19
Magnesium Oxide	.50	.60	.59	.40
Potassium Oxide	.36	.46	.13	.08
Sodium Oxide	.58	.33	.36	.37
Ignition Loss	12.13	17.29	17.36	11.47

^{1/} The map on Page 23 indicates the areal distribution of the Holly Springs, Grenada and Ripley formations.

^{2/} 1949 Minerals Yearbook. U. S. Bureau of Mines.

^{3/} Kentucky Tennessee Clay Company, Mayfield, Ky.

Clays of Southern Illinois: Deposits of red burning clays, suitable for common brick and tile manufacture, are most common. Bleaching clays are available. Light burning clays, which can be used for a variety of structural clay products, such as stoneware, pottery, and terra cotta, are abundant. Some grades are of refractory character and can be used for making such dense burning refractories as crucibles and glass pots. The most important clays occur in the vicinity of Anna, in Union County. Here the deposits occur in a tract of about four square miles. They range up to 85' in thickness, with 25-35' commonly being worked. They can be used for making terra cotta, stoneware, and similar products, as well as for some refractory purposes. 1/

Oil - The Region includes a portion of the Western Kentucky oil district (the pools shown on the Mineral Resources Map are part of this district) and lies close to the oil fields of Illinois. Production for the Western Kentucky District and the State of Illinois during 1951, amounted to 9,505,112 barrels and 60,244,000 barrels, respectively. 1951 production for the pools which lie within the Region itself was an estimated 1,500,000 barrels, valued at \$4,215,000.

Limestone - Large amounts of both high calcium and lower grade stones are available. The map on Page 23 generalizes the high calcium limestone areas and indicates the locations of the operating quarries. High calcium deposits are not restricted to the "High Calcium Limestone Zones" shown on the map. However, these zones are the principal high calcium areas.

Production and Cost: The combined normal yearly output of the operating quarries in the Kentucky portion of the Region is an estimated 1,800,000 tons and the average current bin price per ton is estimated to be from \$1.40 to \$1.50. 2/

Quality: Typical analyses of some local high calcium ledges are given in Table 11. Most of the region's stone is now used for roadway construction and agricultural lime, although some grades are suitable for several other purposes. High calcium deposits have many industrial uses and potentially they should afford a much greater economic asset to the Region than has as yet been realized.

1/ Illinois Geological Survey

2/ Estimates from the Kentucky Crushed Stone Association, 1953

Table 11. Typical Analyses of High Calcium Limestone Ledges in the Paducah Region 1/

Quarry Location	% CaCO ₃	% MgCO ₃	% SiO ₂	% Iron Oxide	% Alumina	% Total	Thickness
Nr. Fredonia Caldwell Co., Ky.	98.5	0.75	0.57	0.16	0.00	100.0	35'
	98.1	0.65	0.66	0.18	0.00	99.6	
	97.8	0.94	0.82	0.04	0.00	100.0	
	97.5	0.53	1.76	0.06	0.00	99.9	
Nr. Hopkinsville Christian Co., Ky.	96.0	2.2	1.58	0.25	0.17	100.2	19'
	96.8	2.0	1.04	0.24	0.01	100.1	
	95.7	2.5	1.61	0.25	0.48	100.0	
	96.4	1.7	0.97	0.28	0.19	98.8	
Nr. Ky. Dam., Lyon Co., Ky.	97.5	1.06	0.70	0.22	0.25	99.7	29'-30'
	96.7	0.73	1.40	0.09	0.05	99.0	
	96.9	0.91	1.57	0.11	0.06	99.6	
	97.4	0.76	1.21	0.08	0.00	99.5	

Sand and Gravel - Local sand and gravel resources are very large. In Kentucky, the deposits include: (1) River deposits along the beds and flood plains of the major streams, (2) Bank or creek deposits occurring over wide areas of the Jackson Purchase and adjacent areas along the Tennessee and Cumberland Rivers. In Southern Illinois, the principal deposits occur along the Ohio and Mississippi River beds. The sand and gravel resources are best suited for roadway construction materials and their future development will largely depend upon demand for these materials.

Glass Sands - Available information indicates that large amounts of good grade glass sands occur. Their general distribution is shown by the map on Page 23. Only one deposit is commercially worked at present. This is near Marion, Crittenden County, Kentucky. The sand is worked and screened to meet individual requirements and shipped to glass manufacturers. Analyses of the deposit being worked are given in Table 12. Reserve estimates of the deposit are large.

1/ Report of Investigations No. 4, 1952, and Information Circular No. 2, 1952, Kentucky Geological Survey.

Table 12. Analyses of Glass Sand from Near Marion, Ky. 1/

<u>Screen Analysis</u>		<u>Chemical Analysis</u>	
<u>Screen Size</u>	<u>%</u>		<u>%</u>
40 mesh.	8.9	Ignition loss.25
40-60 mesh.	22.3	SiO ₂	98.96
60-80 mesh.	35.2	Fe ₂ O ₃	0.027
80-100 mesh.	18.3	Al ₂ O ₃70
100-140 mesh.	13.1	CaO.04
140-200 mesh.	2.9	MgO.	Nil
200 mesh.9	Total	100.00

The quality and quantity of local deposits, considered with sand specifications as required by many current glass manufacturers, suggest that development of the Region's glass sand resources could be expanded.

Chert - Large deposits occur in Southern Illinois and in the Jackson Purchase. A few of the Southern Illinois deposits have been commercialized and investigations indicate that some of the Jackson Purchase deposits are of potential economic value.

Molding Sand - Molding sand is produced from the Ohio River at Kincaid Island and from the Tennessee River above Paducah in McCracken County. 2/ Richardson, in his "Molding Sands of Kentucky," Ky. G. S. 1927, reports molding sand deposits in the following Kentucky counties which lie within the Region: Caldwell, Calloway, Fulton, Graves, and McCracken. Deposits of molding sands also occur in Southern Illinois.

Lignite and Iron - Lignite is available at a number of places in the Jackson Purchase. At present it is not commercially used but has commercial potential. Possibly it could be used as an ingredient in the manufacture of light clay products.

As indicated on the map, scattered iron ore deposits occur in the Kentucky and Tennessee portions of the Region. They are presently considered of no commercial value due to lack of concentration. Small non-commercial deposits also occur near Elizabethtown in Hardin County, Illinois.

1/ Kentucky Agricultural & Industrial Development Board files.

2/ Geology and Mineral Resources of the Jackson Purchase Region, Kentucky, Kentucky Geological Survey, 1950.

MARKETS

Calvert City is located in Marshall County in the western part of the state of Kentucky. Cincinnati, Knoxville, Louisville, Nashville and St. Louis all lie within 350 miles of Calvert City.

In 1954, retail sales in Marshall County were estimated at \$5,221,000. Effective buying income was estimated at \$895.00 per person and \$2,978 per family.^{1/}

CLIMATE

The average annual precipitation in Kentucky ranges from 38-40 inches in the northern part of the state to 50 inches or more in the south-central part. Late summer is normally the driest part of the year.

Winter is usually relatively open, with midwinter days averaging 32 degrees F. in the northern parts, to 40 degrees F. in the southern for about six weeks duration. Midsummer days average 74 degrees F. in the cooler uplands, to 79 degrees F. in the lowland and southern areas. The growing season varies from 180 days in the North to 210 in the South. Seasonal heating degree days average about 4,500 for the state. Sunshine prevails for an average of at least 52 percent of the year, and increases to 60 percent or more to the southwest.

Kentucky's climate is temperate. The climatic elements of sunlight, heat, moisture, and winds are all in moderation without prolonged extremes. Rainfall is abundant and fairly regular throughout the year. The seasons differ markedly, though warm to cool weather prevails with only short periods of extreme heat and cold.

^{1/} Sales Management Magazine , May 10, 1955.

APPENDIX

Employment by Industry Division	Appendix A
Economic Characteristics of the Population	Appendix B
Climatic Data	Appendix C
Kentucky Corporation Taxes	Appendix D
City Bond Issue for Industrial Buildings	Appendix E
Instructions for Filing Articles of Incorporation	Appendix F
Cooperating State Agencies	Appendix G

HISTORY

Calvert City is located in the extreme northern section of Marshall County. It was incorporated March 18, 1871, and the population at that time was approximately 200 persons.

Marshall County, the 92nd formed in the state, was organized June 7, 1842, out of the northern part of Calloway County and named in honor of Chief Justice Marshall.

Appendix B

Covered Employment by Major Industry Division, Marshall County, Kentucky
June, 1954

Industry	County		Kentucky	
	Number	Percent	Number	Percent
All Industries	1,818	100.0	405,276	100.0
Mining & Quarrying	29	1.6	38,457	9.5
Contract Construction	469	25.8	37,316	8.2
Manufacturing	1,040	57.2	145,590	35.9
Food and kindred products	0		25,312	6.2
Tobacco	0		9,195	2.3
Clothing, Tex. & leather	106	5.8	22,184	5.5
Lumber & furniture	35	1.9	14,175	3.5
Printing, Pub. & paper	4	0.2	8,228	2.0
Chemicals, petroleum,			11,914	2.9
coal & rubber	591	32.5	4,590	1.1
Stone, clay & glass	16	.9	6,429	1.6
Primary metals	288	15.8	40,299	9.9
Machinery, metal & equip.	--		3,264	0.8
Other	--			
Transportation, Communi- cation & Utilities	38	2.1	29,325	7.2
Wholesale & Retail Trade	187	10.3	105,891	26.1
Finance, Ins. & Real Estate	29	1.6	15,566	3.8
Services	26	1.4	13,808	7.8
Other	--		1,323	0.3

Economic Characteristics of the Population for Marshall County and Kentucky: 1950				
Subject	Marshall County		Kentucky	
	Male	Female	Male	Female
Total Population	6,788	6,599	1,474,987	1,469,819
EMPLOYMENT STATUS				
Persons 14 years old & over	5,012	4,903	1,039,654	1,048,459
Labor force	3,923	915	799,094	214,162
Civilian labor force	3,920	915	777,154	213,916
Employed	3,783	887	748,658	206,328
Private wage & salary	1,591	699	437,752	156,377
Government workers	270	74	45,354	28,787
Self-employed	1,778	95	235,407	15,104
Unpaid family workers	144	19	30,145	6,060
Unemployed	137	28	28,497	7,588
Experienced workers	136	27	28,082	7,281
New workers	1	1	415	307
Not in labor force	1,089	3,988	240,560	834,297
Keeping house	28	3,229	5,495	665,564
Unable to work	464	283	70,583	38,564
Inmates of institutions	2	5	14,764	7,223
Other and not reported	595	471	149,718	122,946
14 to 19 years old	391	374	84,410	85,890
20 to 64 years old	158	75	47,447	28,942
65 and over	46	22	17,861	8,104
MAJOR OCCUPATION GROUP OF EMPLOYED PERSONS				
All Employed	3,783	887	748,658	206,328
Professional & technical	115	73	34,405	25,410
Farmers & farm mgrs.	1,409	6	169,728	2,264
Mgrs., officials & props.	239	61	57,432	9,706
Clerical & kindred wkrs.	88	79	33,228	47,520
Sales workers	138	63	35,141	20,534
Craftsmen and foremen	549	19	107,292	3,096
Operatives & kindred wkrs.	467	403	152,280	37,609
Private household wkrs.	2	30	1,584	21,408
Service workers	80	71	30,522	28,000
Farm laborers, unpaid fam.	140	10	29,165	3,260
Farm laborers, other	117	7	38,358	788
Laborers, ex. farm & mine	338	12	49,848	1,843
Occupation not reported	101	53	9,675	4,890

Source: Bureau of the Census, 1950 Census of Population (Washington, 1952),
Vol. II, Part 17, Tables 25, 28, and 43.

CLIMATIC DATA FOR CALVERT CITY, MARSHALL COUNTY, KENTUCKY

Month	Temperature Norm 1/	Total Prec. Norm 1/	Average Relative Humidity Readings 2/	
	Degrees Fahrenheit	Inches	6:30 AM	12:30 PM (CST)
January	36.7	4.71	80	68
February	40.1	3.35	79	65
March	49.4	4.84	77	59
April	58.3	4.41	75	55
May	67.1	4.12	79	56
June	75.5	3.73	81	58
July	79.1	3.88	82	54
August	78.0	3.48	85	59
September	72.1	3.07	85	58
October	68.9	2.98	84	54
November	48.5	3.73	79	60
December	39.8	3.99	81	70
Annual Norm.	58.8 degrees F.	46.29 inches		

1/ Station Location: Mayfield, Graves County, Kentucky.

2/ Station Location: Cairo, Illinois.

Length of record - 6:30 AM readings - 64 years; 12:30 PM readings - 34 years.

Days Cloudy or Clear: (80 years of record) - 113 days clear, 119 days partly cloudy, 133 days cloudy.

Percent of Possible Sunshine: (22 years of record) - 65 percent.

Days with Precipitation over 0.01 Inch: (80 years of record) - 3 days.

Days with 1.0 or More Snow, Sleet, Hail: (67 years of record) - 3 days.

Days with Thunderstorms: (68 years of record) - 58 days.

Days with Heavy Fog: (46 years of record) - 7 days.

Prevailing Wind: (80 years of record) - South.

Seasonal Heating Degree Days: (51 years of record) - Approximate long-term means - 3,810 degree days.

KENTUCKY CORPORATION TAXES

Corporation Organization Tax

Domestic corporations having capital stock divided into shares are required to pay an organization tax to the Secretary of State at the time of corporation. The tax is based upon the number of shares authorized:

	<u>Rate Per Share (Par Value)</u>	<u>Rate Per Share (No Par Value)</u>
First 20,000 shares	1¢	1/2¢
20,001 through 200,000 shares	1/2¢	1/4¢
Over 200,000 shares	1/5¢	1/5¢

The minimum tax is \$10. If additional shares are authorized the tax is computed on the basis of the total number of shares, as amended, and the tax due in excess of that already paid must be paid at the time the amendment to the articles of incorporation is filed.

The tax applies to the capital of foreign corporations in case of merger or consolidation with a Kentucky corporation.

Corporation License Tax

All corporations except foreign insurance companies, domestic life insurance companies, building and loan associations, banks and trust companies, race track corporations, and franchise paying corporations are liable for the state corporation license tax of 70¢ on each \$1,000 value of capital stock represented by property owned or business transacted in Kentucky. The minimum license tax is \$10. An annual report of facts concerning the corporation and its business is required to be filed with the Department of Revenue not later than the 15th day of the 4th month following the close of the corporation's taxable year. The amount of the tax is computed from this return. The corporation income and license tax returns have been consolidated. Tax payment is due within 30 days after certification of the assessment of its capital stock.

Corporation Income Tax

The corporation income tax of 4 1/2% applies to the entire net income allocable to this state. Federal income taxes are allowed as a deduction. State and national banks, trust companies, domestic building and loan associations, insurance companies, and non-profit corporations are exempt from the tax. Payment is due on the 15th day of the fourth month after the close of the tax year. Payment of one-third of the tax may be deferred until the 15th day

of the seventh month and an additional one-third until the 15th day of the 11th month following the close of the tax year without interest.

Interest, dividends, rents and royalties, and capital gains not received in connection with the regular business of a corporation are subject to taxation by this state only when such income is received from sources within this state.

Kentucky's portion of taxable corporate income derived from public utilities and the manufacture and sale of tangible property is determined by applying to net income an average of the ratios of the value of tangible property, payroll, and amount of sales in this state to the total value of tangible property, payroll, and amount of sales of the corporation.

In general, this same method is used for allocating taxable income of corporations engaged in other types of business.

Franchise Company Taxes

Property of franchise companies (public service companies, railroad companies, common carrier trucking companies, etc.) is subject to taxation at the following rates per \$100 value: real, 5¢; tangible personal, 50¢; non-operating intangible property, 25¢; manufacturing machinery, 50¢; franchise and rolling stock of car line companies, \$1.50; and franchise (value over and above the actual value of tangible property), 50¢. With the exception of manufacturing machinery, franchise and rolling stock of car line companies, and non-operating intangibles, such property is also subject to local taxation.

Franchise companies must, between January 1 and March 31, file an annual report of their operations during the past calendar year. Assessment of franchise property is made by the Department of Revenue as of December 31 of each year. The total over-all value of the company is fixed by various means, among which are (1) capitalizing net utility operating income and (2) determining the market value of the company's stocks and bonds.

Tax payment is due within 30 days after the department's assessment becomes final.

General Property Taxes

Kentucky's constitution provides that all property, unless specifically exempt, shall be subject to property taxation. Classification is provided and assessments are required to be at fair cash value. However, Kentucky courts have consistently held that uniformity takes precedence over full value. As of 1955, the statewide assessment level on real estate and tangible personalty is about 35 per cent, and on intangible personalty is approximately full value.

State ad valorem tax rates, applicable to the various classes of property, are shown on the table below. Property which may be taxed locally, subject to constitutional or statutory limits, is indicated by the designation "full" or by the maximum rate which may be levied on a particular class of property.

	Rate Per \$100 Assessed Value			
	State	County	City	School
Annuities	\$.05	\$ No	\$ No	\$ No
Bank deposits	.10	No	No	No
Bank shares	.50	.20	.20	.40
Brokers accounts receivable	.10	No	No	No
Building and loan association capital stock	.10	No	No	No
Car lines	1.50	No	No	No
Distilled spirits	.50	Full (1)	Full	Full
Farm products in storage	.25	.05 (tobacco) .15 (other)	.05 (tobacco) .15 (other)	No
Farm products in the hands of producers or agent	.25	No	No	No
Intangibles, franchise	.50	Full	Full	Full
Intangibles, franchise nonoperating	.25	No	No	No
Intangibles, not elsewhere specified	.25	No	No	No
Livestock and poultry	.50	No	No	No
Machinery, agricultural and manufacturing	.50	No	No	No
Raw materials and products in course of manufacture	.50	No	No	No
Real property	.05	Full	Full	Full
Tangible personalty, not elsewhere specified (2)	.50	Full	Full	Full

(1) County rates have a maximum of 70¢ but average 62¢; school rates average \$1.45 with a maximum of \$1.50 except for special voted levies not to exceed 50¢. City rates average about 75¢ with a maximum of \$1.50 for cities over 15,000 population.

(2) Includes automobiles and trucks, merchants inventories and manufacturers finished goods, business furniture and fixtures, etc.

The Department of Revenue assesses bank deposits in Kentucky banks as of September 1 and distilled spirits and marginal accounts as of January 1. Tax payment is due on bank deposits on or before November 1 following the assessment date and on marginal accounts within 30 days after the department renders its tax bill to the taxpayer. The tax on distilled spirits may be paid tri-annually on January 1, May 1, and September 1, or annually between September 1 and January 1.

Other property is assessed for state, county, and county school taxes by county tax commissioners, and must be listed as of January 1 between January 1 and March 1. Tax payment is due between the following September 15 and January 1; if rendered before November 1 a discount of 2% applies. Exceptions are money in hand, deposits in out-of-state banks, and tobacco, which are assessed as of September 1; tax payments are due the second succeeding September 15.

City and city school assessment and payment dates vary.

Special Taxes

Banks and trust companies, building and loan associations, and insurance companies, which are exempt from corporation license and income taxes, are subject to special taxes.

Banks - Each bank and trust company is required to pay for its stockholders an annual state tax of 50¢ per \$100 value of its capital stock. An annual report to the Department of Revenue and to the assessing officer of the county, city, and school district in which it is located is required by February 1. Tax payment, subject to a 2% discount if paid by November 1, is due between September 15 and December 31 following the assessment date. The assessed value of tangible property may be deducted from the total value of its shares.

Maximum local rates per \$100 are: counties, 20¢; cities, 20¢; and school districts, 40¢.

Building and Loan Associations - A state tax of 10¢ per \$100 is levied on capital stock of domestic building and loan associations in lieu of all other state and local taxes. A report to the Department of Revenue as of January 1 is required by January 31 of each year. Tax payment is due by July 1 of the same year. Shares of borrowing members where the amount borrowed equals or exceeds the amount paid in by those members are exempt from taxation.

Foreign building and loan associations are required to pay an annual tax of \$3 on each \$100 received from shareholders residing in this state, less the amount loaned to shareholders residing in the state. A report must be filed with the Department of Banking on January 1 each year.

KENTUCKY REVISED STATUTES
1948

103.200 - 103.280

INDUSTRIAL BUILDINGS FOR CITIES GENERALLY

103.200 Definitions for KRS 103.200 to 103.280. As used in KRS 103.200 to 103.280, "industrial building" means any building or structure suitable for and intended for use as a factory, mill, shop, processing plant, assembly plant, or fabricating plant, to be rented or leased to an industrial concern by the city by which it is acquired.

103.210 Issuance of Bonds. In order to promote the reconversion to peace-time economy, to relieve the conditions of unemployment, to aid in the rehabilitation of returning veterans and to encourage the increase of industry in this state, any city may borrow money and issue negotiable bonds for the purpose of defraying the cost of acquiring any industrial building, either by purchase or construction, but only after an ordinance has been adopted by the legislative body of the city specifying the proposed undertaking, the amount of bonds to be issued, and the maximum rate of interest the bonds are to bear. The ordinance shall further provide that the industrial building is to be acquired pursuant to the provisions of KRS 103.200 to 103.280.

103.220 Interest on Bonds; terms. (1) The bonds may be issued to bear interest at a rate not to exceed six percent per annum, payable either annually or semi-annually, and shall be executed in such manner and be payable at such times not exceeding twenty-five years from date thereof and at such place or places as the city legislative body determines.

(2) The bonds may provide that they or any of them may be called for redemption prior to maturity, on interest payment dates not earlier than one year from the date of issuance of the bonds, at a price not exceeding 103 and accrued interest, under conditions fixed by the city legislative body before issuing the bonds.

103.230 Bonds negotiable; disposal; payable only from revenue. Bonds issued pursuant to KRS 103.200 to 103.280 shall be negotiable. If any officer whose signature or countersignature appears on the bonds or coupons ceases to be such officer, before delivery of the bonds, his signature or countersignature shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until delivery. The bonds shall be sold in such manner and upon such terms as the city legislative body deems best, or any contract for the acquisition of any industrial building may provide that payment shall be made in such bonds. In no event shall any bonds be negotiated on a basis to yield more than 6% except as provided in subsection (2) in KRS 103.220. The bonds shall be payable solely from the revenue derived from the building, and shall not constitute an indebtedness of the city within the meaning of the Constitution.

It shall be plainly stated on the face of each bond that it has been issued under the provisions of KRS 103.200 to 103.280 and that it does not constitute an indebtedness of the city within the meaning of the constitution.

103.240 Use of proceeds of bonds. All money received from the bonds shall be applied solely for the acquisition of the industrial building, and the necessary expense of preparing, printing and selling said bonds, or to advance the payment of interest on the bonds during the first three years following the date of the bonds.

103.250 Receiver in case of default. If there is any default in the payment of principal or interest of any bond, any court having jurisdiction of the action may appoint a receiver to administer the industrial building on behalf of the city, with power to charge and collect rents sufficient to provide for the payment of any bonds or obligations outstanding against the building, and for the payment of operating expenses, and to apply the income and revenue in conformity with KRS 103.200 to 103.280 and the ordinance referred to in KRS 103.210.

103.260 Application of revenue; charges for use. (1) At or before the issuance of bonds the city legislative body shall, by ordinance, set aside and pledge the income and revenue of the industrial building into a separate and special fund to be used and applied in payment of the cost thereof and in the maintenance, operation and depreciation thereof. The ordinance shall definitely fix and determine the amount of revenue necessary to be set apart and applied to the payment of principal and interest of the bonds, and the proportion of the balance of the income and revenue to be set aside as a proper and adequate depreciation account, and the remaining proportion of such balance shall be set aside for the reasonable and proper operation and maintenance of industrial building.

(2) The rents to be charged for the use of the building shall be fixed and revised from time to time so as to be sufficient to provide for payment of interest upon all bonds and to create a sinking fund to pay the principal thereof when due, and to provide for the operation and maintenance of the building and an adequate depreciation account.

103.270 Depreciation account. (1) If a surplus is accumulated in the operating and maintenance funds equal to the cost of maintaining and operating the industrial building during the remainder of the calendar, operating or fiscal year, and during the succeeding like year, any excess over such amount may be transferred at any time by the city legislative body to the depreciation account, to be used for improvements, extensions or additions to the building.

(2) The funds accumulating to the depreciation account shall be expended in balancing depreciation in the industrial building or in making new constructions, extensions or additions thereto. Any such accumulations may be invested as the city legislative body may designate, and if invested the income from such investment shall be carried into the depreciation account.

103.280 Additional Bonds. (1) If the city legislative body finds that the bonds authorized will be insufficient to accomplish the purpose desired, additional bonds may be authorized and issued in the same manner.

(2) Any city acquiring any industrial building pursuant to the provisions of KRS 103.200 to 103.280 may, at the time of issuing the bonds for such acquisition, provide for additional bonds for extensions and permanent improvements, to be placed in escrow and to be negotiated from time to time as proceeds for that purpose may be necessary. Bonds placed in escrow shall, when negotiated, have equal standing with the bonds of the same issue.

(3) The city may issue new bonds to provide funds for the payment of any outstanding bonds, in accordance with the procedure prescribed by KRS 103.200 to 103.280. The new bonds shall be secured to the same extent and shall have the same source of payment as the bonds refunded.

The Following Amendment was made to KRS 103.200 to 103.280 by the 1952 Kentucky Legislature.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE COMMONWEALTH OF KENTUCKY:

Section 103.200 of the Kentucky Revised Statutes is amended to read as follows:

As used in KRS 103.200 to 103.280, "industrial building" or "buildings" means any building or structure suitable for and intended for use as a factory, mill, shop, processing plant, assembly plant, or fabricating plant, and/or the necessary operating machinery and equipment, to be rented or leased to an industrial concern by the city by which it is acquired.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF STATE
Secretary of State, Frankfort, Kentucky

INSTRUCTIONS FOR FILING ARTICLES
OF
INCORPORATION FOR FOREIGN CORPORATIONS
IN KENTUCKY

1. Original articles of incorporation and all existing and subsequent amendments to original articles must be filed with the Secretary of State of Kentucky, certified by the Secretary of State of the state of incorporation, as of the present date, in the chronological order. All articles and amendments must be accounted for in the certification of the Secretary of State of the state of incorporation. A \$25.00 filing fee for original articles and amendments is required. A fee of \$10.00 is required for recording articles and amendments.
2. A statement of corporation designating process agent and place of business in Kentucky is required. Filing fee \$5.00.
3. Annual verification report of statement of corporation and annual statement of existence is required to be filed on or before July 1st, of each year. Filing fee for each is \$1.00.
4. Photostatic copies will be accepted for filing and recording, if they are plainly legible and in proper legal form with respect to size, durability, etc., and of such size and quality as to permit them to be re-photostated.

For further information write to:

Charles K. O'Connell
Secretary of State
Commonwealth of Kentucky
Frankfort, Kentucky

COOPERATING STATE AGENCIES

As a state, Kentucky realizes the importance of industry in developing her many resources. In addition to the Agricultural and Industrial Development Board, which was created for the express purpose of promoting the economic development of the Commonwealth, there are many state agencies actively engaged in programs, which, directly or indirectly, contribute materially to the solution of problems which affect our industrial growth. Since it is a statutory function of the A&ID Board "to coordinate development plans," contact with the following state agencies and others concerned may be established through the Board.

The Kentucky Highway Department, in planning its program of development and expansion, gives every consideration to the needs of existing and proposed industries. During the year 1954, 2,222 miles of highway and bridges were placed under contract at a total cost of \$41,347,000. This figure does not include \$30,000,000 which will be spent on a new turnpike between Louisville and Elizabethtown, Kentucky. Kentucky has ranked in the upper fourth of all states in recent years in both the number of miles of highway construction and in the amount of money spent.

The Department of Economic Security will furnish data regarding potential labor supply, prevailing wage rates, characteristics of labor supply and employment and economic characteristics for any area in the State. The Department's Division of Employment Service with offices in 24 cities in the State is available at all times to assist in recruitment of workers for industry both old and new. All local offices in the State are equipped to administer specific aptitude tests for 270 different occupations as a part of the recruitment process. These tests facilitate getting the "round peg" into the "round hole" thereby helping to reduce worker turnover and training time.

The Kentucky Department of Industrial Relations has been highly successful in its relations with both management and labor. Representatives of this department are available at all times to consult with industries on any matter in which they can be of service.

The Kentucky Department of Revenue offers the services of its tax consultants to industries seeking locations within the state, as well as to resident industries.

The Kentucky Agricultural and Industrial Development Board takes pride, not only in the services it has to offer to industries seeking locations in Kentucky, but in the service it attempts to render on a continuing basis to existing industry. Established industries have found the state to be considerate of their welfare and we welcome the opportunity to introduce representatives of prospective new industries to our present family of industries.