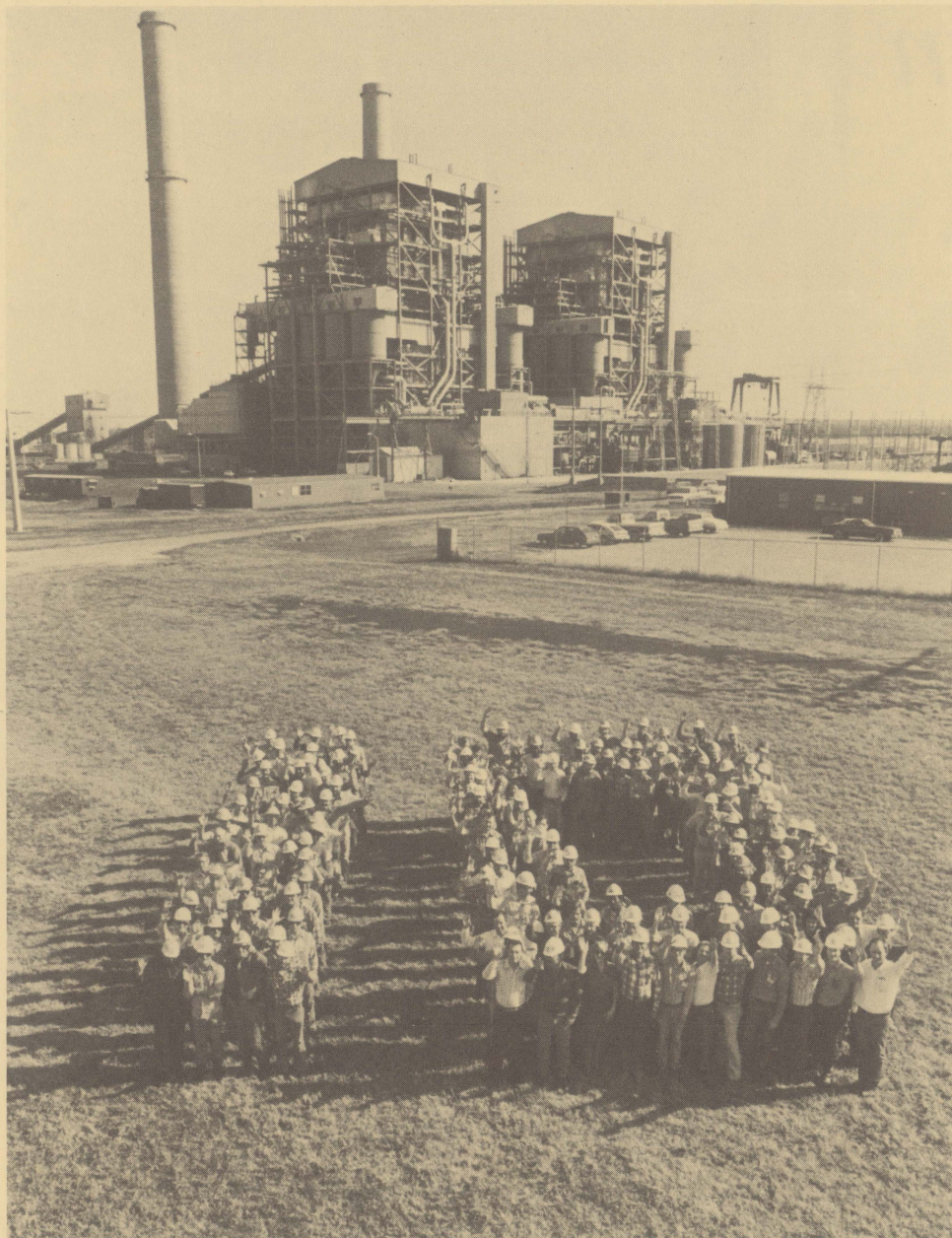


the circuit

Special Anniversary Edition

January 21, 1982



Big Brown employees help celebrate the System's 10-year anniversary of lignite operations. Big Brown, where commercial operation began in late 1971, is the first major lignite-fueled plant built to serve the System's customers.

Once 'useless' lignite now vital

Once considered to be virtually useless, Texas lignite is now regarded as being extremely important in meeting the state's present and future energy requirements.

Since the first lignite-fueled Big Brown Steam Electric Station unit was placed in service in 1971 more than 170 billion net kilowatt-hours of electricity have been produced by the System's lignite-fueled generating plants.

During this ten-year period TUGCO has mined 144 million tons of lignite for use in generating electricity for the customers of Dallas Power & Light, Texas Electric Service and Texas Power & Light.

Texas is the number one lignite producing state, and TUGCO is the fourth largest coal mining company in the nation.

From 1971 through 1981, the TU System has mined about 13,000 acres of land. Of this amount, about 10,000 acres have been completely restored to agricultural production and another 1,200 acres are well along in the process toward total restoration.

That 144 million tons of lignite has provided the same amount of energy contained in more than 300 million barrels of oil, or in about 1.8 trillion cubic feet of natural gas.

The use of that lignite is a direct economic benefit to customers of the three companies. The additional fuel cost to generate the same amount of electricity with market-priced natural gas would have been about \$1.8 billion.

As of 1981, the System had a total generating capacity of 5,845,000 kilowatts at its four lignite plants — Big Brown with two 575,000-kilowatt generating units; Monticello with two 575,000-kw units and one 750,000-kw unit; Martin Lake with three 750,000-kw units; and the Sandow Unit 4 rated at 545,000 kw. These units have an average installed cost of less than \$260 per kilowatt.

During 1981, the average cost of lignite used at the four plants was less than one-third the average cost of natural gas and fuel oil used.

Ten years of dynamic accomplishments

During the past 10 years the System's development and use of lignite has received national recognition through a number of major industry awards.

The National Society of Professional Engineers recognized Units 1 and 2 of the Monticello Steam Electric Station for the innovation and foresight reflected in the plant's design and the significant contribution it has made in fuel cost savings to System customers. The organization cited Monticello as one of America's 10 outstanding engineering achievements completed in 1976.

The Company earned the Edison Electric Institute's highest honor, the Edison Award, in 1978. The award is presented annually to a member company which has demonstrated outstanding achievement. EEI said the Company earned the honor through its "innovative development of lignite fuel resources in the generation of electricity."

The John Fritz Medal for 1980 was presented to T. L. Austin, Jr., chairman of the board of Texas Utilities Company, by five national engineering societies. The five societies include: the American Society of Mechanical Engineers; American Society of Civil Engineers; American Institute of Mining, Metallurgical and Petroleum Engineers; Institute of Electrical and Electronics Engineers; and the American Institute of Chemical Engineers.

Austin was cited by the organization for "outstanding achievement in electric power generation and leadership in corporate management and the vision to plan the System's growth to change from gas and oil fuels to lignite long before the problem was recognized by other industrial leaders."

Among other recipients of the award since its establishment in 1902 have been George Westinghouse, Alexander Graham Bell, Thomas Alva Edison, Orville Wright, Guglielmo Marconi and Herbert Hoover.

In naming Austin the Electric Industry Man of the Year for 1980, *Electric Light & Power* magazine cited "... his role in leading Texas Utilities through an energy conversion program from 100 percent gas-fired in 1971 to being nearly 50 percent lignite-fueled today."

In accepting these awards Austin explained that they reflected the efforts of all employees, and noted that "the public doesn't realize what a tremendous job they have done in getting our system on 50 percent lignite use in such a short time.

"During this 10 years of lignite operations, our employees have not only pioneered the use of lignite as a major fuel source in Texas but also innovated literally hundreds of ways to improve operations and efficiency and to solve problems."

Big Brown

The Big Brown Steam Electric Station is the first major lignite-fueled plant built to serve customers of the Texas Utilities Company System.

The plant's two 575,000-kilowatt units are jointly owned by Dallas Power & Light (33⅓%), Texas Electric Service (33⅓%) and Texas Power & Light (33⅓%).

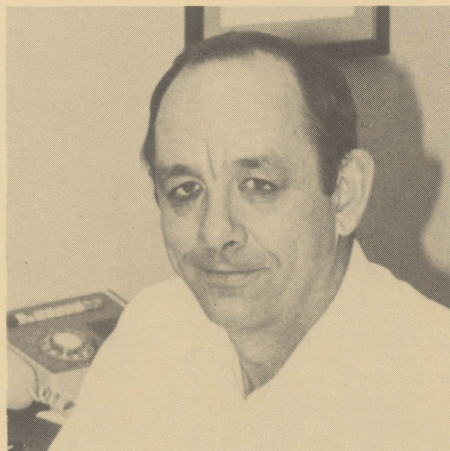
When completed in 1972, the Big Brown Station cost approximately \$144 million, excluding the lignite facilities. Currently, about 680 employees operate the facility.

Big Brown has a unique Environmental Research Center and program which, as far as we know, are the only ones of their kind in the nation in connection with a major power plant. Research in land, air and water is conducted at the center by graduate students from leading universities in the Southwest.

In its 10 years of operation, the plant has paid more than \$5 million in local taxes.

Below is a chronological listing of major milestones at the Big Brown Steam Electric Station:

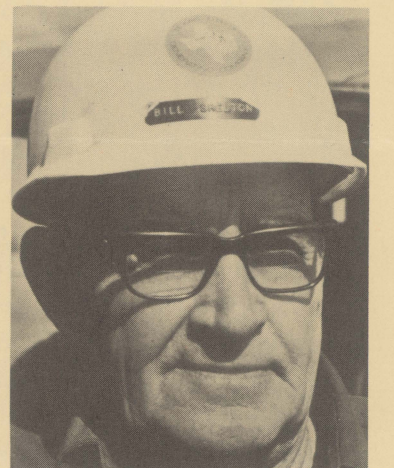
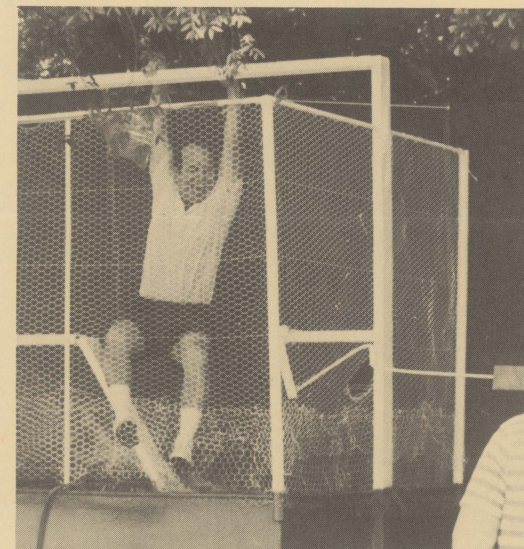
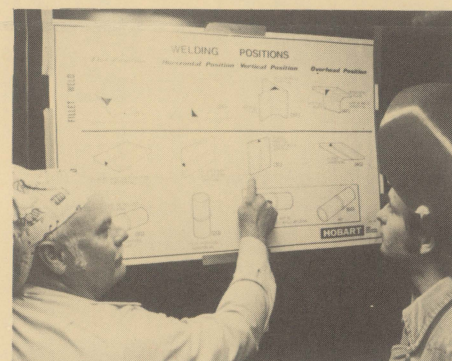
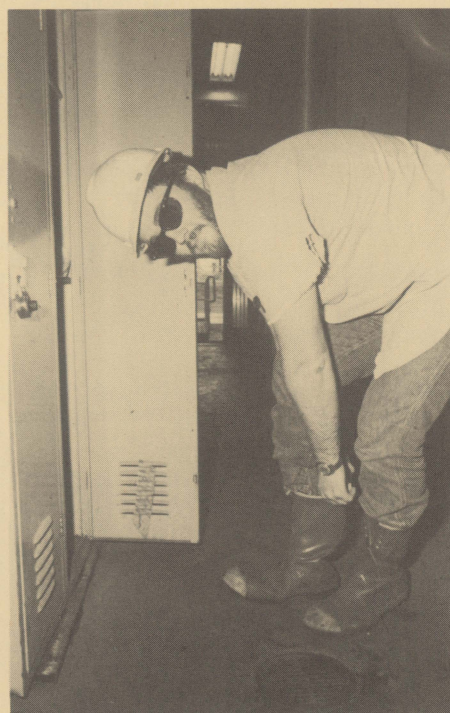
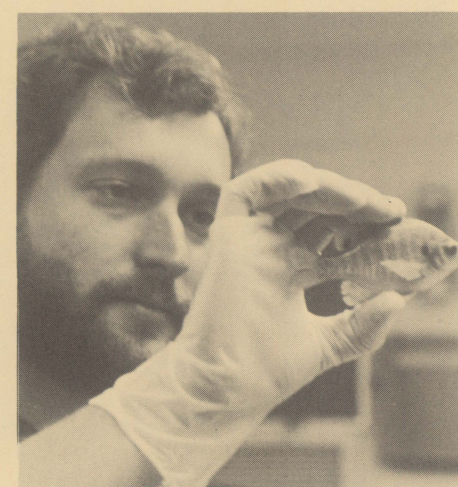
- July 1, 1968** — Construction began
- September 27, 1969** — Dam closure
- March 1971** — First dragline completed
- March 1971** — Mining started
- August 1971** — Reservoir's normal pool elevation achieved
- November 17, 1971** — Trial operation of Unit 1 began
- December 1971** — Environmental Research Facility began operation
- December 23, 1971** — Unit 1 operational (250,000 kw)
- March 1972** — Second dragline completed
- March 1, 1972** — Fairfield Lake State Park opened
- April 3, 1972** — Unit 1 full commercial operation
- October 27, 1972** — Trial operation of Unit 2 began
- December 6, 1972** — Unit 2 operational
- November 1978** — Third dragline completed



David Reedy, general superintendent



Included in the Big Brown photos on these two pages are: employee picnics; Environmental Research Center; welding training school; and Big Brown employees.



First supervisors' conferences



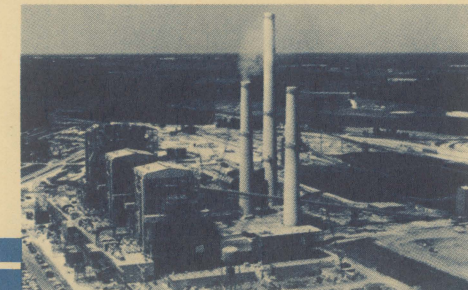
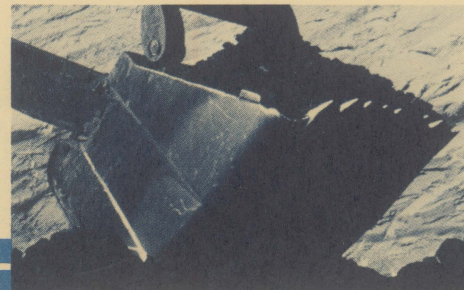
The first Big Brown supervisors' conferences were held in January 1972 at Trinidad. Training programs were conducted at Big Brown before the TUGCO Training Center opened in Athens January 1980. Participants in the first program were: (first picture, left) first row, left to right — Louis Robinett and Oscar Hillegeist — second row, left to right — William Shelton, Earl



Voskamp and David Thompson — and third row, left to right — Bob Cooper, Billy Whitson and Paul Watson; (second picture, center) first row, left to right — Bennie Cornutt, W. C. Crawford, Jr., Dick White, Harold Nabors and John Green, Jr. — second row, left to right — Orville Bellah, H. C. Weiss, Jr., and Clifford Erwin — and third row, left to



right — David Reedy, Claude Moehlman and John Dorsett, Jr. — (third picture, right) first row, left to right — Ronald Magel, David Staley, John Carlson, E. G. Harrison and Joe Morgan — second row, left to right — A. G. Schwarzer, James Love and Carl Poole — and third row, left to right — Bill Bradley, Hal Hill and James Smith.



Monticello

The Monticello Steam Electric Station is the second major lignite-fueled plant built to serve customers of the Texas Utilities Company System.

The plant has two 575,000-kilowatt units and one 750,000-kilowatt unit. Units 1 and 2 are jointly owned by Dallas Power & Light (20%), Texas Electric Service (30%) and Texas Power & Light (50%). The larger unit is jointly owned by Texas Electric Service (50%) and Texas Power & Light (50%).

The two smaller units cost a total of approximately \$238 million and the larger unit cost about \$245 million, excluding the lignite facilities. Currently, about 1,400 employees operate the facility.

In its seven years of operation, the plant has paid more than \$22 million in local taxes.

Below is a chronological listing of major milestones at the Monticello Steam Electric Station:

April 1971 — Construction began

October 1972 — Dam closure

April 1974 — First dragline completed

June 1974 — Mining started at Winfield

July 1, 1974 — County Park opened on Lake Monticello

October 27, 1974 — Trial operation of Unit 1 began

December 23, 1974 — Unit 1 operational

January 1975 — Reservoir's normal pool elevation achieved

July 1975 — Second dragline completed

October 21, 1975 — Trial operation of Unit 2 began

December 8, 1975 — Unit 2 operational

Spring 1977 — Monticello Units 1 and 2 named one of 10 outstanding accomplishments of 1976 by the National Society of Professional Engineers

October 1977 — Third dragline completed

February 1978 — Mining started at Thermo

July 1, 1978 — Trial operation of Unit 3 began

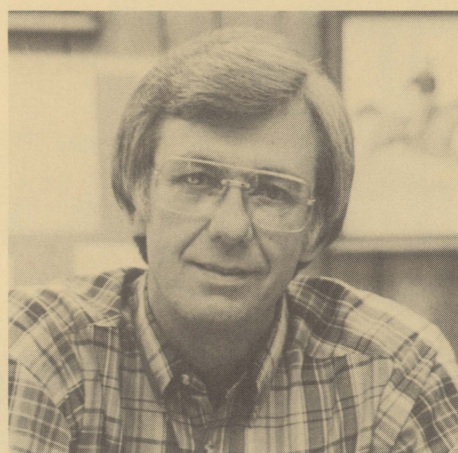
October 1978 — All-pro National Bass Fishing Championship held at Lake Monticello

November 15, 1978 — Unit 3 operational

February 2, 1980 — State's biggest bass, to date, caught in Lake Monticello by a retired Navy man from Pittsburg, Texas. The 14 lb. 1½ oz. bass was 28 inches long with a girth of 21¾ inches. The previous bass record was established in 1943.

May 7, 1980 — 100 millionth ton of lignite mined by TUGCO was produced at Monticello.

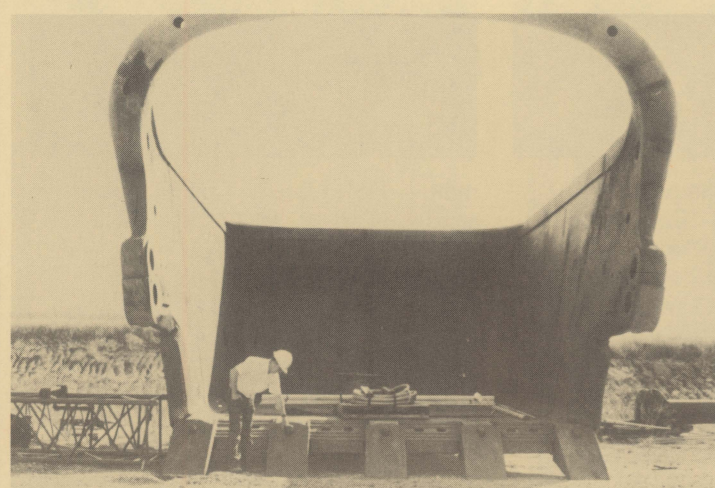
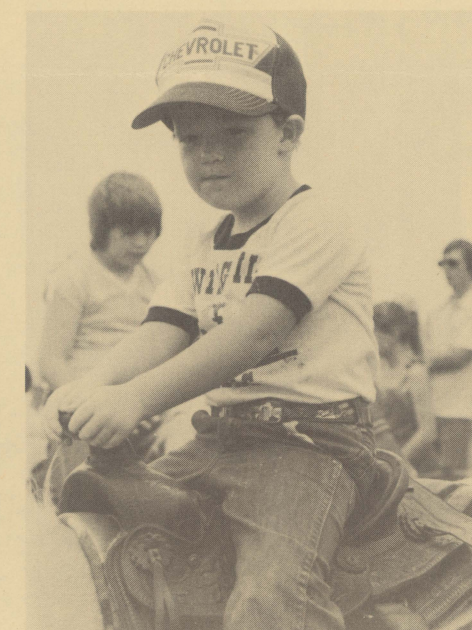
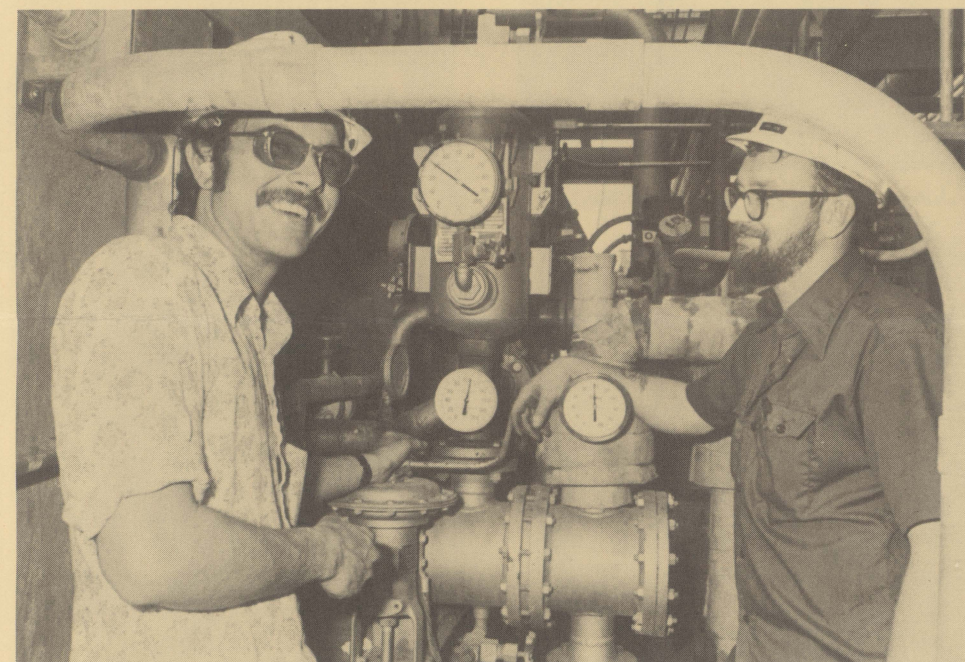
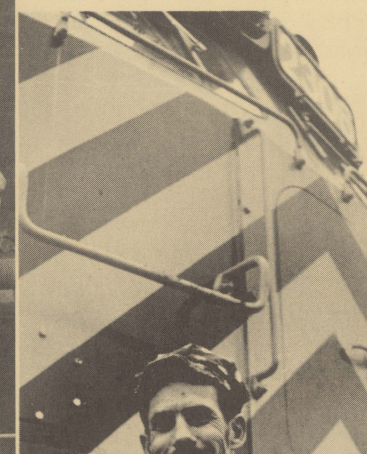
March 1981 — Power Department completed more than one million man-hours without a single lost-time injury

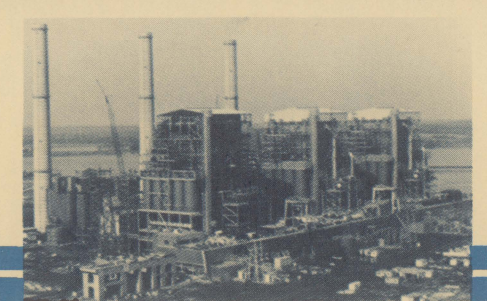
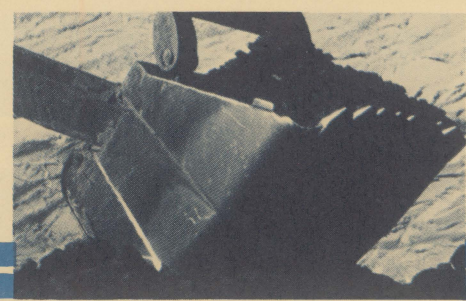


Charles Merka, general superintendent



Included in the Monticello photos on these two pages are: employee picnics; power department's safety award; and Monticello employees.





Martin Lake

The Martin Lake Steam Electric Station is the largest lignite-fueled plant in the Texas Utilities Company System and, as far as we know, in the world.

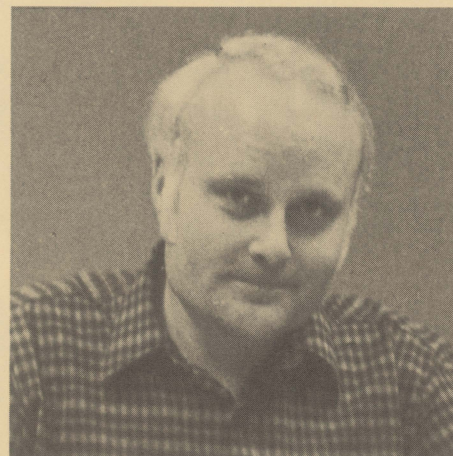
The plant currently has three 750,000-kilowatt units in operation, with a fourth scheduled for operation in 1990. Ownership of Units 1 and 2 is by Dallas Power & Light (20%), Texas Electric Service (20%) and Texas Power & Light (60%). Ownership of Unit 3 is by Dallas Power & Light (25%), Texas Electric Service (45%) and Texas Power & Light (30%).

Units 1 and 2 cost a total of approximately \$413 million. Unit 3 cost about \$235 million and Unit 4, when completed, is expected to cost more than \$500 million. Currently about 1,800 employees operate the facility.

In its more than four years of operation, the plant has paid some \$17 million in local taxes.

Below is a chronological listing of major milestones at the Martin Lake Steam Electric Station:

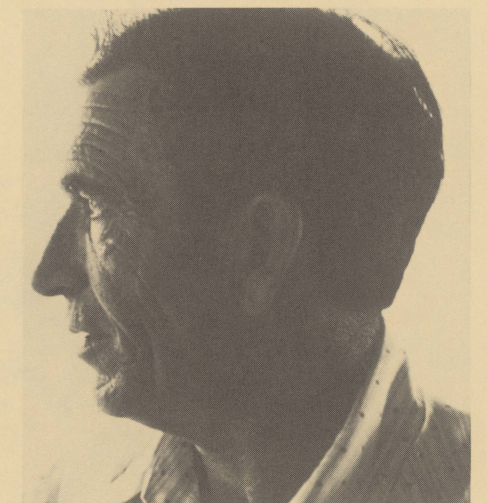
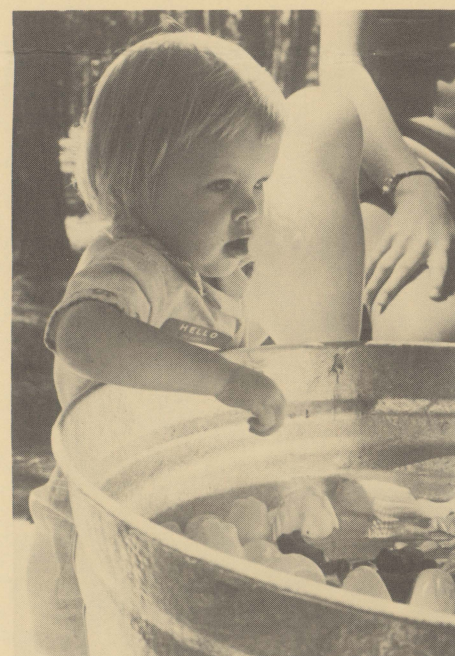
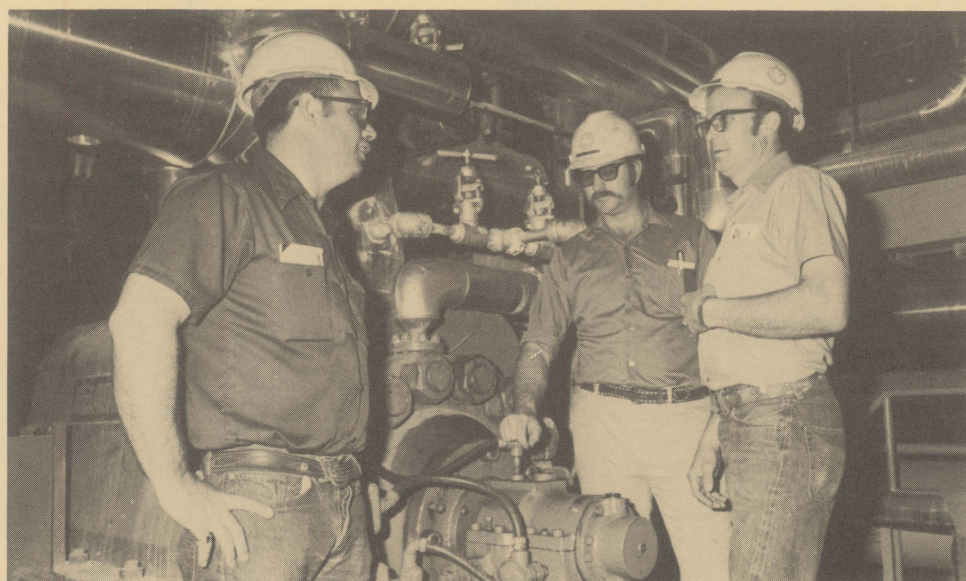
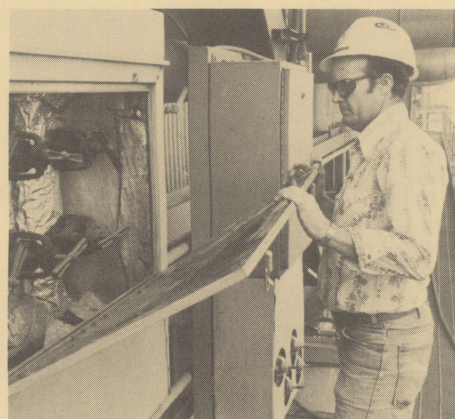
- May 1972** — Construction began
- April 1974** — Dam closure
- June 1975** — Reservoir's normal pool elevation achieved
- June 25, 1976** — State Park opened
- October 1976** — Mining started
- March 1977** — First dragline completed
- March 8, 1977** — Trial operation of Unit 1 began
- May 16, 1977** — Unit 1 operational
- December 1977** — Second dragline completed
- March 6, 1978** — Trial operation of Unit 2 began
- May 1978** — Unit 1 turbine generator switched
- May 23, 1978** — Unit 2 operational
- January 1979** — Third dragline completed
- February 6, 1979** — Trial operation of Unit 3 began
- April 1, 1979** — Unit 3 operational
- October 1979** — Fourth dragline completed
- March 1980** — Fuel Department completed more than one million man-hours without a single lost-time injury
- Summer 1980** — 1,500th employee hired
- January 1981** — Fifth dragline completed
- June 1981** — Power Department completed more than one million man-hours without a single lost-time injury



John Carlson, general superintendent



Included in the Martin Lake photos on these two pages are: employee picnics; 1,500th employee hired at the plant; power and fuel departments' safety awards; and Martin Lake employees.



Employees: Key to System's success

"The success we've achieved in the past 10 years is directly attributable to all employees throughout the System, and to those people who had the foresight to lease lignite through the years," T. L. Austin, Jr., Texas Utilities Company board chairman, said earlier this month.

The wisdom, Austin explained, to begin exploring for, acquiring and developing lignite deposits belongs to the employees and management of the operating companies.

W. W. Lynch, then president of Texas Power & Light, and his boss, the late board chairman John W. Carpenter, made the decision to begin leasing lignite land in the post World War II boom years when natural gas was plentiful and cheap.

By the early 1960s, Dallas Power & Light, Texas Electric Service and Texas Power & Light — allied as the electric utility operating companies of the System — began to see problems developing with the price and supply of natural gas.

C. A. Tatum, then TU board chairman and former DP&L president, recalls the three companies had become seriously concerned about where they'd find fuel for their power plants in the next 20 to 30 years.

It soon became apparent that lignite was the direction to go and that the most economical use of the fuel would be for the three operating companies to jointly build the generating units.

George MacGregor, then TU president, recalls that the size of the power plants, mining equipment, transportation of the lignite, and environmental control equipment all posed problems that needed to be researched.

More research was done — much more. Research though, Austin explained, can't make human decisions,

and finally a very few men — the heads of DP&L, TESCO, TP&L and TU — had to say yes or no.

They decided to build the Big Brown Steam Electric Station. Their gamble to go into the lignite program paid off quickly, both in terms of providing the System with an adequate supply of fuel to meet the energy demands of its customers, as well as being able to provide the electrical energy at a substantial savings.

The decision also reduced the System's dependence on expensive natural gas, thereby supporting the national goal of energy independence.

Since then, literally thousands of employees have worked in planning, building and operating lignite plants.

"To the many people who have been instrumental in the success of the System's lignite development during the past 10 years, thanks for your contribution," Austin concluded.



The System mined its 100 millionth ton of lignite on May 7, 1980, nine years after mining its first ton at Big Brown. T. L. Austin, Jr., and Texas Governor Bill Clements shovel some of the ton into a specially prepared container as news cameras record the event. Governor Clements said, "Texas is a bright spot in America's coal production picture. Thanks to companies like Texas Utilities, the Texas experience has been different. It has been better. You have proven and are proving that coal mining is economically sound — and you have saved your customers \$1 billion already."

1971 – 1981



10 YEARS OF LIGNITE OPERATIONS