

**Plant Hammond**  
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 For plant tours, call:  
 706-235-1161



# HAMMOND

Operated And Maintained By



## OUR MISSION

*To be Southern  
Company's most  
reliable plant.*

### POWER FOR THE FUTURE

**N**estled in the west Georgia pine forests on the banks of the Coosa River is Plant Hammond, which for more than 40 years has provided electricity to the area. The plant, one of 11 coal-fired units operated by Georgia Power, is approximately 10 miles west of Rome, Ga., and just a short drive from the Georgia-Alabama line.

Plant Hammond has four generating units, with a total capacity of 800 megawatts. That's enough electricity to power nine cities the size of nearby Rome for one year.

Unit 1 began commercial operation June 19, 1954, and was followed on line by Unit 2 on Sept. 26, 1954. Unit 3 began commercial operation on June 9, 1955. The three units are nearly identical, with generating capacity of 100 megawatts each. Babcock and Wilcox supplied the boilers, and Westinghouse the turbines and generators.

Unit 4, a 500-megawatt generator, began commercial operation Dec. 14, 1970. The unit has a Foster Wheeler manufactured boiler and a Westinghouse turbine and generator.

The plant was named for William P. Hammond, who joined Georgia Power in 1913, and from 1922 until his retirement more than 30 years later, was responsible for the design and construction of all the company's generating units. He was vice president of engineering when ground-breaking began on the plant in November 1951. Hammond retired in 1953, the same year Unit 1 came into service.

## ECONOMIC IMPACT

Plant Hammond, which pays more than \$1.9 million each year in property taxes to Floyd County, has a significant impact on the area's economy. In addition to being a major local taxpayer, Plant Hammond provides jobs for 200 people, most of whom live in Floyd, Bartow, Polk and Cherokee counties. The plant's annual payroll totals approximately \$9 million.

## EMPLOYEE AND COMMUNITY SERVICE

Plant employees actively support their local community by participating in the United Way, the March of Dimes-WalkAmerica and American Cancer Society. They also support numerous programs benefiting the underprivileged and charitable causes through the Citizens of Georgia Power, a non-profit employee service organization. Hammond's employees also assist schools and civic organizations and work with local teachers in the Gift Teacher Program. Throughout the school year, employees also serve as mentors, teach students about the environment through the Environmental Teachers Corps and demonstrate electrical safety using a display called powerTOWN. Employees also conduct frequent plant tours, educating young people and adults on the production of electricity and other energy-related matters.

## GEORGIA POWER AND SOUTHERN COMPANY

Georgia Power is the largest of five operating companies owned by Atlanta-based Southern Company, the largest investor-owned utility in the United States. The others are Alabama Power, Gulf Power, Mississippi Power and Savannah Electric. Southern Company also is parent to Southern Energy Inc., which designs, builds, owns and operates power production and delivery facilities and provides a broad range of energy-related services in the United States and international market.

Southern Company is the largest producer of electricity in the United States. By the end of 1998, Southern Company generated 164 billion kilowatt-hours annually at its U.S. facilities and operated more than 43,000 megawatts of capacity worldwide.

Georgia Power contributes 14,436 megawatts to Southern Company's total generation. It supplies electricity to 97 percent of the state of Georgia and has a transmission network serving some 1.8 million customers. At the end of 1998, Georgia Power operated 43 plants with 153 generating units within its service territory.

Fossil fuels account for about 73 percent of the electricity generated by Georgia Power. The remainder is supplied by nuclear and hydroelectric plants.

## HOW ELECTRICITY IS PRODUCED AT PLANT HAMMOND

Plant Hammond operates on the same principles as other fossil-fuel electric generating plants. The process begins with coal mined in Kentucky and delivered by Norfolk Southern Railway. The plant maintains a 25- to 30-day supply of fuel on its coal pile.

From the pile, the coal is transferred via conveyor belts to a series of bunkers. There, feeders send the coal to the pulverizers where it is crushed into a fine flammable powder. Next, it is blown into a furnace called a boiler. In the boiler, the coal burns in a four-story-tall flame. The heat produced converts water to high-pressure steam as it runs through a series of tubes in the boiler.

The high-pressure steam turns the blades of a turbine, which is coupled to a generator. The generator spins and produces electricity.

A condenser uses river water to cool down the turbine's exhaust steam and convert it back into water so that it can be returned to the boiler for reuse in the steam-making process.

As electricity is generated at Plant Hammond, it is conducted to a power transformer in an adjacent substation, which increases the voltage. The high-voltage electricity is then fed into transmission lines for distribution throughout the state.



Coal is delivered to Plant Hammond by rail cars. The coal is unloaded and then transferred to the coal pile where it is stored until needed. The plant maintains a 30-day coal supply.



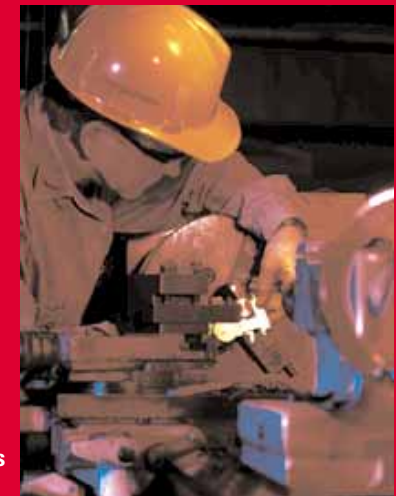
The control room is the center for plant operations. Here the operators control the unit's turbines and generators as well as other plant equipment.

## FACTS ABOUT GEORGIA POWER

- ▶ Net Income 1998 .....\$570 million
- ▶ Number of Employees .....8,371 in Georgia
- ▶ Total Net Generation (territorial) .....102,567,702 MWs
- ▶ Highest Peak Demand .....21,710 megawatts (June 24, 1998)
- ▶ Coal Burned Annually ..... (approximately) 30.1 million tons

## FACTS ABOUT PLANT HAMMOND

- ▶ Plant Acreage .....605 Acres
  - ▶ Stack Height .....750 Feet
  - ▶ Operating Steam Pressures: Units 1, 2, & 3 .....1,800 PSI  
Unit 4 .....2,400 PSI
  - ▶ Average Daily Coal Burn .....6,500 Tons/Day
  - ▶ Fuels on Reserve: Oil 200,000 Gallons .....139,000 BTU/Gallon  
Coal 350,000 Tons .....12,500 BTU/Pound  
(The plant maintains a 30-day supply of coal.)
- Unit Ratings:
- |                     |                     |
|---------------------|---------------------|
| Unit 1 .....100 MWs | Unit 2 .....100 MWs |
| Unit 3 .....100 MWs | Unit 4 .....500 MWs |
- ▶ Taxes Paid Annually to Floyd County: .....\$1.9 million
  - ▶ Total Work Force: .....200 employees
  - ▶ Annual Salaries Paid to Employees: .....\$9 million



Plant Hammond's mechanics maintain all equipment in good working condition in order to keep the plant's generating units available for use at all times.

## ENVIRONMENTAL STEWARDSHIP

Plant Hammond serves as an environmental showcase for the nation's coal-fired generating units. In 1988, the plant's 500-megawatt Unit 4 boiler was equipped with new, advanced pollution control technology designed to reduce nitrogen oxide (NOx) emissions by more than 50 percent. NOx is one of several pollutants targeted for further reductions by potential acid rain legislation.

The \$11.7 million project, the largest of its kind in the United States, was a joint effort of Southern Company, the U.S. Department of Energy and the Electric Power Research Institute. The three-phase project featured a process that changed the flow of air in the unit's hot burners, thereby limiting the flow of oxygen available to form NOx. It also employed low-NOx burners, a special technology that retards NOx formation.

Georgia Power's commitment to protecting the environment is reflected in its investments for pollution control. Electrostatic precipitators remove more than 99 percent of solid particulates from the boiler exhaust, and additional equipment has been installed to enhance precipitator performance. A continuous emissions monitoring system analyzes gaseous emissions leaving the 750-foot stack to ensure the plant meets environmental guidelines at all times.

## ENVIRONMENTAL EXCELLENCE PROGRAM

Protecting the air, soil, water and wildlife is of paramount importance to Plant Hammond's employees. Through participation in Southern Company's Environmental Excellence Program, Plant Hammond monitors environmental trends.

The environmental excellence program helps create the highest possible level of awareness among all employees. They take pride in seeing that their plant attains or exceeds all environmental regulations, helping to solidify the company's position as an environmental leader.



The plant's environmental specialist and lab personnel continuously monitor the Coosa River water to ensure that the surrounding environment is properly maintained.

## SAFETY AND HEALTH

The health and well-being of employees at Plant Hammond is of utmost importance. Safety is top priority in each of the many daily work activities. Employees' commitment to safety is exemplified by their daily safety briefings, training and observations.

The safety philosophy of all Hammond employees is summed up in a simple phrase: Safety Is Our Number One Priority.

## PLANT DEPARTMENTAL TEAMS

The 200 highly skilled employees who operate, maintain and oversee the operation of this plant work in these departments:

- ▶ Hygiene & Compliance
- ▶ Water Chemistry
- ▶ Fossil Fuel
- ▶ Operating
- ▶ Electrical
- ▶ Mechanical
- ▶ Building Services
- ▶ Materials
- ▶ Security
- ▶ Safety
- ▶ Training
- ▶ Instruments & Controls
- ▶ Engineering
- ▶ Administration

### GUIDING PRINCIPLES

- Customer focused
- Team based
- Value added

### PRIORITIES

- Safety and compliance
- Maintain assets
- Efficient operation

### STRATEGIC OBJECTIVES

- Achieve a competitive generation costs.
- Prepare our people and organization for the future to ensure a solid foundation that is responsive to change.
- Strengthen Plant Hammond family as a team to meet the business needs and goals while safeguarding each other on the job.



Plant Hammond is a great place to work.

The operating department employees are constantly monitoring unit operations to ensure safe operation of the equipment.