

Power vs. Safety

Local workers helping to prepare for future

By Ed Miller

The Shearon Harris Nuclear Power Plant, located about 25 miles from Raleigh, is not generating electricity, but the construction on the 900 mega-watt (900 million watts) nuclear generator is now nearing completion and some Raeford residents are working on the site.

The plant, which is scheduled to begin serving the public in 1986, employs about 4,000 construction workers and will have a permanent staff of about 700 when completed.

Of those 4,000, about a dozen are from Raeford working in various jobs from painter to engineer.

One field support engineer is Randy Frahm formerly of Raeford.

According to Frahm, his job entails "supplying craft workers with packages telling them what to do and where to do it."

Welders, painters, masons and other craftsmen rely on Frahm and others like him to assemble the proper set of plans for a specific task.

Frahm makes sure that everything is "checked and double checked" for safety and in accordance with specifications.

Frahm has been at the construction site for over a year and plans to be there possibly another two years.

Before working at the nuclear plant site, Frahm, who is a graduate from Hoke High, was employed locally at Croft Metals.

He says his new job has allowed him to meet many people and broaden his future, adding that he has no problems with working to build a plant that uses nuclear fuel to provide electrical power.

"I think it is a safe power source," said Frahm. Before coming to work at the station he had some reservations about the safety of nuclear power, Frahm said, but after seeing all the safety precautions taken at the site, he thinks "it is the way to go."

Workers at the site are screened daily to make sure they are not working while impaired. Persons not belonging on the site are not admitted, he added.

Bernard Bridges is also a Raefordite working at the Harris plant. He holds a field support position in which he makes copies of plans for different parts of the operation.

On an average day, the 13-year Raeford resident sees about 50 people per day and gives them plans, as well as another 50 people that he never lays eyes on.

Bridges also said that about eight out of every 10 people he sees need their plans "right now." That keeps him busy.

Bridges has been at the plant about nine months and works along with seven of his relatives who are also from Hoke County. The daily trek to the Harris plant takes about an hour and 20 minutes. The family members ride together, he said.

Bridges is also somewhat of a celebrated singer in and around Raeford.

He sings tenor and has placed second in a state contest in the male vocalist category, as well as touring much of the state in the Hoke High Barbershop Quartet.

He is also a drummer.

Bridges and Frahm are two of the thousands of people that all "click" together making sure that the Shearon Harris Nuclear Plant will be finished on time and will be safe.

The physical size of the plant and the planning that has gone into its creation is so large that it is hard to measure.

A 4,000 acre lake built near the plant will provide water to a cooling tower that takes the heat out of steam that turns turbines and makes electricity.

The cooling tower is 526 feet high with walls that are 33 inches thick at the bottom, less than a foot in the middle and about 30 inches thick at the top.

There have already been one-half million cubic yards of concrete poured at the site and this concrete is twice as dense as that used in the construction of a normal house, said Project Construction Supervisor Bill Hindeman.

The concrete is made to particular specifications about 200 yards from the site.

Hindeman also said 8 million linear feet of cable have been put into and around the site.

There are two diesel generators, housed in their own building, that would be used as a back up system which would allow the nuclear unit to be shut down slowly.

Hindeman said that it takes electricity to close down the system that makes electricity.

These two backup generators have the capacity to provide enough power to supply the needs of Aberdeen, Southern Pines, Pinehurst and Raeford.

There are also systems in place which would take over if the two backup generators were knocked out.

Safety is a primary concern of CP&L, and millions of dollars are being spent to insure it.

Even while under construction, with equipment and machinery operating around the site, the project has one of the best heavy construction safety records in the state.

In addition to demonstrating concern about safety at the plant, CP&L is also attempting to educate the public about the need for energy.

About four miles from the generating plant is the Harris Energy and Environmental Center where the public can learn about the plant and nuclear power, see movies about how nuclear heat is turned into electricity and observe displays covering many of the aspects of using and making electrical energy.

There is even a bicycle that can be ridden to produce electrical energy.

In the basement of this building are the laboratories that handle all the testing and experimentation for the Carolina Power & Light system.

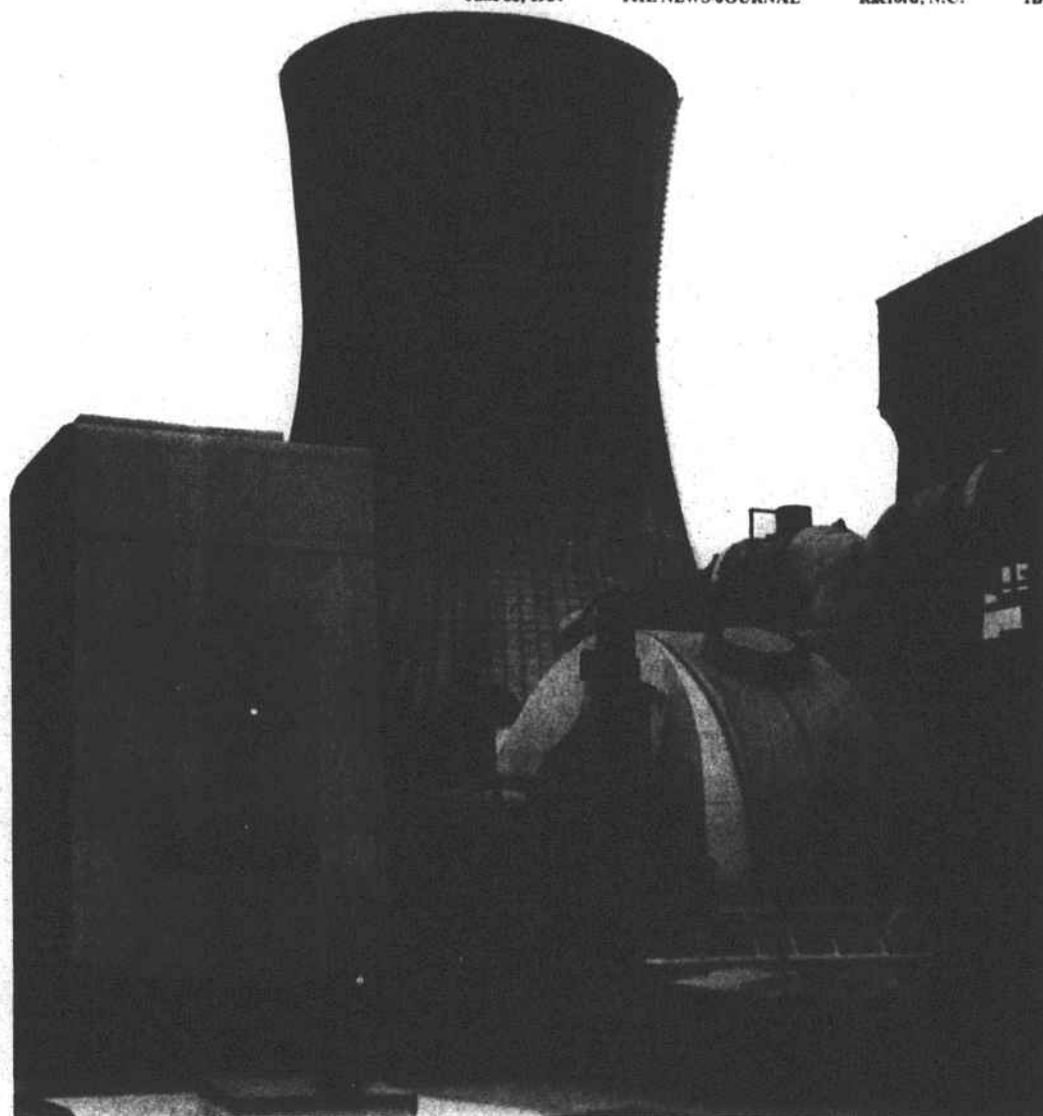
These labs also run analysis on construction materials.

According to Jay Mullins, Director of the center, all of the equipment used at the facility is "state of the art" and incorporates the latest technology.

In one lab there were dozens of small plastic containers of water.

Mullins said that on each one of these containers the lab personnel would run 50 tests.

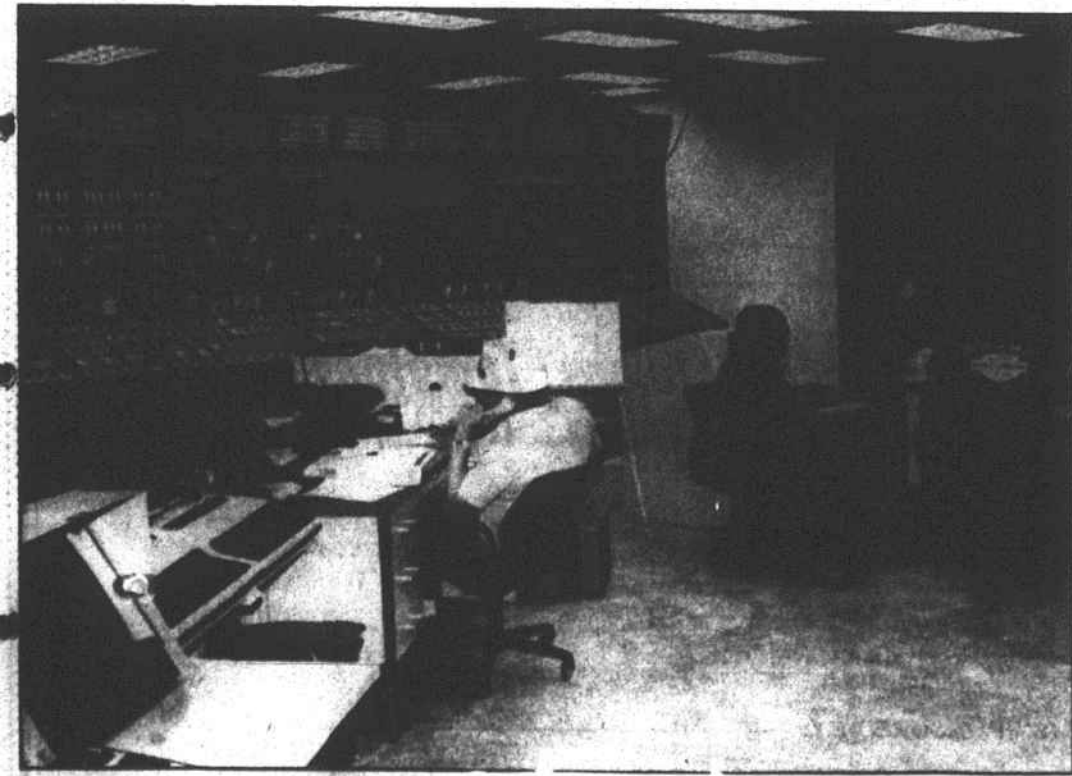
The massive operation at and around the Shearon Harris Plant must be seen to be believed.



The construction goes on

This scene is just one corner of a large platform that will eventually be a working part of the plant. Looming in the background is the 526 foot cooling tower

that will cool the steam turning the turbines so it can be reused.



The nucleus of the plant

This is the control center of the power plant. If anything goes wrong with the system, when the plant goes into operation, one of the many monitors in this room will show it. If anything were to ever go wrong

with the instrumentation in this room, there is another smaller control room close by this one that can be used to keep up with every function of the plant.



Way the job works

Randy Frahm tells about the duties of his job at the nuclear plant construction site. Frahm puts together packages that tell workers what to do and where to do it. Frahm says that most of his spare time is spent working out at a nearby Nautilus Center. He has been working at the Shearon Harris construction site for more than a year.



Hometown man chats

Raeford's Bernard Bridges (left) is shown here talking with CP&L Customer Service Manager, Ed Hitchings on the actual construction site of the Shearon Harris Nuclear Plant. Bridges is a worker in the document control department which is just one of the many areas that all pull together to have the plant supplying power to North Carolina residents by 1986.