

# Community Connection

SPRING



2019



Fire suppression testing was completed before the new transformer was put into service.

## *Hatch Unit 2 safely returns to service following refueling outage*

Following the Plant Hatch Unit 2 spring refueling outage, the unit has been safely returned to service. The nuclear fuel in Plant Hatch's boiling water reactors lasts approximately six years, with approximately one-third of the fuel being replaced during each refueling outage. Since Hatch has two nuclear reactor units with 24-month operating cycles, refueling outages alternate between units each year. While one unit is shut down to refuel, the other continues to produce electricity.

Refueling requires removal of the top of the reactor to safely remove and replace the used fuel. "After we disassemble the reactor vessel head, we flood the reactor cavity with water, and the fuel we remove remains under water at all times. Next, we transfer the fuel bundles/assemblies to our spent fuel pools where they are stored," explains Dale Smith, night lead in Fleet Reactor Services. "Then the new fuel is put into the vessel and we reassemble the reactor."

Scheduled refueling outages also provide an opportunity to perform planned

preventative maintenance on equipment to ensure the plant remains safe, reliable and up to date.

"I thank everyone at the plant for their hard work and tireless efforts throughout the duration of this shutdown," said Tom Vehec, Hatch site vice president. "Our team's unwavering dedication enabled us to complete a variety of projects while meeting our goals of safety and first-time quality."

This year, workers replaced two feedwater heaters, which heat water as part of the generating cycle to improve the plant's thermodynamic efficiency. The project took years of planning, along with ingenuity, creativity and teamwork to remove, transport and replace the 83.5-ton heaters. The removal required an overhead crane, a special tool to tip the heaters so they would fit through the access in the concrete floor, and careful maneuvering in and out of the plant.

Hatch improved emergency response capabilities by adding a transformer,

increasing switchyard reliability and upgrading the automatic system response when fluctuations in voltage occur.

Because good housekeeping is a direct reflection of a safe working environment, workers used the time offline to scrub down floors and give some areas a new coat of paint.

"During this outage over 7,500 tasks were safely completed at the plant," said Vehec. "We had 1,500 contractors and 900 employees working 12 hours a day for 35 days, which adds up to over a million work hours. That's a maintenance record that reflects the pride of every worker at Plant Hatch as well as our commitment to continue serving this community with safe, reliable energy."



One of two massive 83.5-ton feedwater heaters replaced during the outage.



## Hatch supports community health needs through The Mercy Ministries

The Mercy Ministries (TCM) is a holistic (physical, mental, spiritual) healthcare ministry that has been in operation since 2009. The main campus in Lyons, open 4½ days a week, serves more than 500 patients from Toombs County and surrounding areas. A second campus is set to open in Graham this year, opening 2½ days a week to start, and will serve those in need from Appling, Jeff Davis and Bacon Counties.

With the recent \$3,000 charitable contribution from Plant Hatch, the clinic can provide complete healthcare to three individuals for an entire year. The medical clinic offers primary care with medication assistance, health education, counseling and specialty referrals; the dental clinic provides basic dental services aimed at alleviating pain and infection; and the Mercy University offers classes in work life as well as faith and finance.



## A look back

In this historical 1973 Hatch construction photo, the Unit 1 turbine and reactor buildings are nearing completion and the second unit is just getting started. Less than two years after this picture was taken, Hatch Unit 1 began commercial operation on December 31, 1975. A few years later, Hatch Unit 2 was completed and began commercial operation on September 5, 1979.

## Hello, sunshine!

Azaleas are in full bloom and the fish are biting — it must be spring in southeast Georgia! At Plant Hatch, we all know our families, friends and neighbors are enjoying a busy season packed with festivals and celebrations. Somewhere between activities, we hope you can find a few minutes to catch up with us to see the many ways we are staying plugged into our surrounding communities. Maybe you will even find time to plan a Hatch visit of your own to learn more about nuclear energy.

Please remember to follow us on social media for the latest information at Hatch and the rest of the Southern Nuclear fleet.

As always, we thank you for your continued support and hope to see you soon.

## Hatch supports Coastal Pines Technical College programs and students

The recent Plant Hatch \$3,500 charitable contribution to Coastal Pines Technical College will support their Appling County and Jeff Davis County instructional sites. The locations offer a variety of industrial, technical and medical program opportunities including welding, industrial systems technology, electrical systems technology, practical nursing and many more.

"Thanks to Plant Hatch for their generous donation to the CPTC Foundation, which will benefit students who live right here in the Appling and Jeff Davis County counties area," said CPTC Foundation Director Stephanie Roberts. "The funding will help these students with their tuition and book expenses for their STEM program, thereby helping our students find viable employment right here at home."



CPTC has the largest service delivery area in the Technical College System of Georgia, covering 7,433 square miles in 13 counties. With seven instructional sites, 19 adult education sites and dual enrollment opportunities with 16 high schools, CPTC offers courses to meet the needs of any student.



## Be prepared

You need to know what to do in the unlikely event of an emergency at our station, and Southern Nuclear has many communication forms to ensure you're prepared. Scan the QR code to visit our Emergency Preparedness website to get the information you need on your mobile device anytime, anywhere.



Additionally, there are pole-mounted sirens throughout the 10-mile Emergency Planning Zone around the site that would alert residents in the unlikely event of an emergency. Residents in the EPZ also receive an EP Calendar every year in the mail and last year received a keycard with a QR code that links to the Emergency Preparedness website.

Finally, the CodeRED Emergency Notification System may be used to contact residents by phone in the event of an emergency. Contact your local emergency management agency for more information on CodeRED.

# Ready for summer!

As you would expect, quite a bit takes place behind the scenes for us to enjoy the benefits of having readily available electricity.

Electricity generated at power plants typically travels through many miles of wires – essentially at the speed of light – and through several transformers before reaching your light switch. The electricity we use originates from a multitude of electricity generating facilities and the electrical energy we're using at any given time is being generated at that very moment. The electrical energy available in the wires is called the grid.

In the Southeast, people use the largest amount of electricity for heating and cooling homes and businesses, followed by heating water, using appliances and lighting. Knowing that, it is no surprise that the highest demand for electrical energy is during the summer and winter.

## Nuclear energy

The minimum level of electricity demand at any given time is the system's baseload requirement. Above this base level are intermediate and peak levels of electricity demand (see graph). To meet these variations, companies like Georgia Power and Alabama Power operate a variety of power plants.

Baseload energy providers, including nuclear plants, are used to meet the largest, constant demand for electricity. These facilities must produce electricity continuously throughout the year, stopping only for refueling or occasional maintenance, and must run reliably and produce power at a relatively low cost.

Baseload electric generating facilities are truly the workhorses of our electricity system.

Two benefits of nuclear energy as a baseload power source are its low operating costs and ability to continuously operate at full power. Other advantages include nuclear fuel that only needs replenishing once every 18 to 24 months and no carbon emissions.

Since nuclear-powered electric generating facilities are likely among the largest in an electrical system, they also contribute significantly to the stability of the electric grid. The predictability of nuclear plant operations, with planned outage schedules known well in advance and a very low incidence of unexpected shutdowns, adds to grid reliability to meet the electricity demands to keep you cool during the summer.

## Appreciating electricity

Despite its great importance in daily life, few people realize that electricity has been widely available for only about 100 years. We often take electricity for granted and rarely stop to think about what life would be like without electricity — until we lose electricity for what may feel like a long time after a storm.

But rest assured, Southern Nuclear employees, along with the regional distributors of electricity in the area, will work to ensure a reliable supply of electrical energy to you this summer, 24 hours a day.

## How can Plant Hatch help your school or organization?

Our charitable giving program supports qualified schools and 501(c)(3) organizations that serve the needs of the community. Call 800-722-7774 to learn more about our program and discuss how we can partner.

Follow us on social media



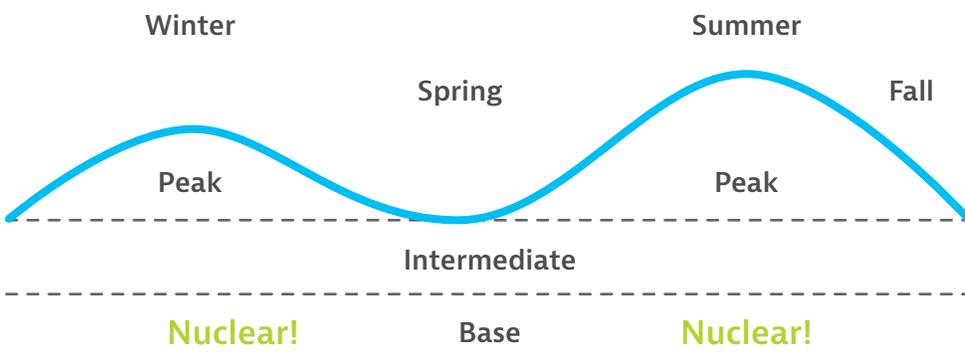
@SouthernNuclear

## Historic day at Plant Vogtle 3&4 construction site

Plant Vogtle personnel placed the top on the Unit 3 containment vessel March 22, signifying that all modules and large components have been placed inside the unit. The containment vessel houses the unit's reactor vessel and associated equipment.

The containment vessel is a high-integrity steel structure that houses critical plant components. The top head is 130 feet in diameter, 37 feet tall, and weighs nearly 1.5 million pounds, more than two fully loaded jumbo jets. 58 large steel plates, each more than an inch and a half thick, were welded together to construct the top head.

Follow the progress being made at Plant Vogtle through Georgia Power's website and social media channels.





Learn about  
nuclear energy  
like never before.



11028 Hatch Parkway N., Baxley, GA 31513  
Located off of U.S. Highway 1

[Visit the Plant Hatch Energy Education Center](#)

and experience Georgia's first nuclear energy generating plant.

Call in advance to book your group tour at **800-722-7774**.