Together we’re building the future of energy
Georgia Power is building the 1st new nuclear units in the United States in three decades. These units will generate enough electricity to power 500,000 homes and businesses all while producing no greenhouse gases and stabilizing costs when compared to coal and natural gas prices. The carbon-free energy that will be produced by Vogtle 3 and 4 is equivalent to removing more than 1,000,000 cars from the road each year.

A wind farm needs 235 sq miles to produce the same amount of electricity as a 1,000-megawatt nuclear power plant does in <1% of the same area.

One half inch uranium nuclear fuel pellet creates as much energy as 149 gallons of oil, 17,000 cubic feet of natural gas, and one ton of coal ore.

The volume of concrete used for construction could build a 3,375 mile sidewalk between Miami and Seattle.

The new office space at Vogtle 3 and 4 (300,000 sq ft) is more than 5x the square footage of the White House.

Vogtle 3 tower stands 60 stories high, and Vogtle Unit 3 nuclear island has 2 million lb CANDU module.

When the Vogtle 3 and 4 workforce of more than 6,000 people is on site, Burke County has a 27% increase in total population.

During construction, more individuals will be employed than the combined rosters of all the previous Atlanta Braves franchises. Ever.

These units will create 800 permanent jobs when the facility begins operating.
Message from Mark

Watching construction of the first new nuclear units in the U.S. in more than three decades literally rise out of the ground is a truly humbling experience. For those of us who work here every day, it’s easy to see the progress made each day at the Vogtle 3 and 4 site.

For those who don’t have the opportunity to see it first-hand, we hope this magazine will give you at least an overview of a true American inspiration – all from right here in Burke County, Ga. In this issue, we’ll highlight some of the important work going on both at the site and in the community.

Safety is our first priority and we’re dedicated, in every task we do, to ensuring that these units are completed safely, correctly and in a way that will deliver the most value for Georgia electric customers for generations to come. We will never compromise in our commitment to safe and high-quality construction and I applaud our entire Vogtle construction team for its continued focus each and every day.

The Vogtle expansion is the state’s largest job-producing construction project with work taking place around the clock. More than 6,000 workers have logged more than 25 million safe work hours (without a lost time accident) since December 2014.

In addition to the major construction milestones – which you’ll see highlighted in the following pages – we’ve had some recent progress on the regulatory side of the project as well. We’re currently in the process of our 15th Vogtle Construction Monitoring report with the Georgia Public Service Commission and feel good about that effort. Also, Georgia Power has reached an agreement with the Georgia PSC staff that confirms the company’s prudent investments in the project. There is more work to be done on the settlement – a public hearing and a final PSC vote – but we have an agreement with the PSC staff and that represents tremendous progress between the company and the PSC.

Construction of Vogtle units 3 and 4 continues to represent the most economic energy option for customers during the next 60 years. In addition, we continue to project that the total rate impact for customers will be 6-8 percent, which is significantly less than anticipated at certification.

While all of this progress is noteworthy, it’s equally important to point out our continued investment in this community as we live out our company motto of being a Citizen Wherever We Serve.

We hope each of you reading will take pride with us in the fact that we’re not only making history, but we’re also creating a better future for generations of Georgians to come.

Mark Rauckhorst
Southern Nuclear Executive Vice President of Vogtle 3 and 4 Construction
SAFETY
QUALITY
PRECISION
PRIDE

DEEP WITHIN: Nearly five stories down, a construction worker welds a portion of the Unit 3 CA20 module.
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FINAL TOUCHES: Workers prepare to set the final roof truss atop the Unit 3 turbine building. Read more on page 14 about the Unit 3 turbine milestone.
The heavy lift derrick guides the final roof truss toward the Unit 3 turbine building.
HEAVY LIFTING: Before sunrise, lights showcase Unit 4 CA20 prior to being hooked to the heavy lift derrick, with the Unit 3 nuclear island and turbine building in the background.
August placement critical to progress

By Mike Tyndall

THE PLACEMENT OF THE UNIT 4 CA20 MODULE IN AUGUST MARKED A MAJOR CONSTRUCTION MILESTONE.

The CA20 module weighs nearly two million pounds and towers more than five stories tall. With a footprint of approximately 67 feet long by 47 feet wide, CA20 is the largest module to be assembled in the module assembly building. Consisting of 72 sub-modules, the critical module will house various plant components, including the used fuel storage area.

"Applying lessons learned from Unit 3 and working as one team, with one vision, we were able to complete this milestone successfully and without a safety incident," said Mark Rauckhorst, Executive Vice President of Vogtle 3 and 4 Construction.

The CA20 module is the final infrastructure piece needed to begin completing the lower elevation of the Unit 4 auxiliary building. The placement of the massive module in the Unit 4 nuclear island allows the construction of eight walls to be completed.

Setting CA20 also facilitates completion of the unit’s wedge area walls, which enables completion of the shield building.

The CA20 setting will also allow finishing work on the actual module. The CA20 module will eventually encompass eight mechanical modules and 21 rooms.

MAKING MILESTONES: The heavy lift derrick places the CA20 module into the Unit 4 nuclear island.

Photo by Walter Kirk.

The CA20 module sits outside the MAB before being moved to the heavy lift derrick to be placed in Unit 4.
INSIDE THE NUCLEAR ISLAND:
Iron workers scale walls of rebar in the Unit 3 nuclear island.

Photo by Joel Leopard
Making it happen - Prospective operators pass initial exam, six months closer to receiving license

By Mike Tyndall

THE NUCLEAR REGULATORY COMMISSION RECENTLY CONFIRMED THAT 18 CANDIDATES FROM VOGTLE 3 AND 4’S INITIAL LICENSE CLASS NO. 1 HAVE PASSED THE EXAM.

The three-week testing process, which began in early August, involved simulator testing, Job Performance Measures and a written exam. Including three Reactor Operators and 15 Senior Reactor Operators, the class consists of U.S. Navy veterans, previously licensed personnel and other industry professionals.

“This is a monumental accomplishment for the class and our training and operations departments,” said Site Vice President Karen Fili. “Nearly four years have gone into training and preparing this class. They have spent countless hours in the classroom and simulator, and all of their hard work has paid off.”

Fili added that the operators will receive their licenses upon completion of six months of preoperational testing.

The start of the Initial License Training exam no. 1 was one of the Top Ten Operational Readiness milestones for 2016. Completion of this milestone assures readiness of Vogtle 3 and 4 license candidates for the purposes of initial operating testing, nuclear fuel loading and plant start up.

“We can all be proud of this significant milestone,” continued Fili. “This team will help bring us online for the first time and help ensure safe operations for years to come.”

Individuals who apply for a Senior Reactor Operator’s license must pass an additional 25-question written examination and a more rigorous operating test. Overall, Reactor Operator applicants must score an 80 percent or better on the written examination and pass the operating test, while the Senior Reactor Operator applicant must score an 80 percent or better on the overall written examination and a 70 percent or better on the Senior Reactor Operator-only portion of the written examination and pass the operating test.

BEING FIRST: 18 candidates from Vogtle 3 and 4’s initial license class no. 1 have passed their exams.
Personnel run simulations in the AP1000 digital control room simulator at the Vogtle 3 and 4 Training Building B.
Topping it out - Turbine island 3 reaches final height

By Mike Tyndall

IN OCTOBER, THE LAST ROOF TRUSS WAS SET ON THE UNIT 3 TURBINE BUILDING BY A TEAM OF HEAVY LIFT DERRICK OPERATORS. THIS MARKED THE “TOPPING OUT” OF THE STRUCTURE AT ITS MAXIMUM HEIGHT OF 254 FEET.

Topping out is the term used by ironworkers to indicate the final piece of steel has been hoisted into place on a building, bridge or other large structure. The achievement is typically commemorated with a traditional ceremony. A team of about 80 Savannah Local 709 ironworkers began the ceremony with the Ironworkers Prayer and adorning the truss with a small evergreen tree and an American flag, signifying safety and national pride. Leaders from Southern Company, Westinghouse and Fluor, as well as local union representatives, were on hand to congratulate the team.

“We extend our congratulations to the ironworkers and other skilled craft workers who made the setting of the truss possible,” said John Crenshaw, Westinghouse Site Vice President and Project Director.
VISIT TO CHINA PROVIDES GLIMPSE INTO THE NEAR FUTURE OF Vogtle 3&4

Exchange program with Sanmen Nuclear Power Station results in valuable ‘lessons learned’

By Mike Tyndall

By the time Jeremiah Haswell’s flight touched down at the Shanghai Pudong International Airport in Shanghai, China, he was more than ready to deplane and stretch his legs. After all, some 20 hours had passed since his flight departed from Atlanta, marking the beginning of his journey. After then flying across the United States, his presumed non-stop flight to Tokyo made an unscheduled landing in Seattle due to a passenger with a medical condition.
After a good night’s sleep in Shanghai, Haswell began the next leg of his journey the following morning – a 3 ½ hour trip to the city of Sanmen on a train rocketing to speeds typically experienced on a NASCAR track.

“After arriving at the Sanmen train station, we took a small bus for a 45-minute trip,” added Haswell. “On the way, we drove through the city itself, then through rural areas – including driving through a tunnel in a small mountain – until we finally reached our destination.”

No one said it would be easy to travel from the heart of Atlanta to China’s Zhejiang province, on the coast of the East China Sea. For Haswell, this trip half-way around the world was the most direct path to observe history in the making while gaining valuable insight relating to his job.

Haswell – part of the team responsible for building two new nuclear units at Georgia Power’s Plant Vogtle – traveled to China to tour the Sanmen Nuclear Power Station. Located in Sanmen County, Zhejiang Province in China, the Sanmen Nuclear Power Station is the world’s first nuclear generating facility to implement the AP1000 pressurized water reactor developed by Westinghouse Electric Company.

“While touring Sanmen Unit 1, it was impressive to see a finished version of one of our own Vogtle 3 and 4 units,” Haswell said. “It’s very helpful to actually see a completed AP1000 unit in person. You can look at computer renderings and photos, but seeing the real thing helps to actually visualize a completed unit.”

After visiting the operations building and control room, Haswell was able to go into the Sanmen 1 containment building, a reinforced structure enclosing the nuclear reactor.

“We went into all accessible areas of containment, including the bottom of the steam generators to see the reactor coolant pumps,” he said. “We even went all the way on top of the pressurizer, where we got a really good view on top of the steam generator all the way down to where the reactor vessel is sitting. It was helpful to see the real thing, to see it all together.”

Haswell also toured Sanmen Unit 2, which is still in the middle of construction.

“It’s very helpful to actually see a completed AP1000 unit in person. You can look at computer renderings and photos, but seeing the real thing helps to actually visualize a completed unit.”

An advanced 1,117 megawatt nuclear power plant that uses simplicity of design to enhance plant safety and operations, the AP1000 reactor will also be implemented at Plant Vogtle Units 3 and 4. While Sanmen Units 1 and 2 are scheduled to go online in mid-2017 and mid-2018 respectively, the in-service dates for Vogtle 3 and 4 are scheduled for June 2019 and June 2020.

Therefore, Haswell’s journey to China gave him a first-hand look into the near future, a glimpse of what Vogtle 3 and 4 will look like approximately two years in advance. In fact, construction of Sanmen Unit 1 is now virtually complete. Loading of fuel and continued testing are the remaining big steps required before the unit goes on line next year.

ZHEJIANG PROVINCE: Sanmen Unit 1 on the coast of the East China Sea.
“At Sanmen 2, you immediately get the full experience of a mega construction project such as Vogtle 3 and 4,” said Haswell. “Workers are welding and grinding metal; they’re terminating cables and applying coatings. When you walk into any confined area, all of those sounds and smells suddenly hit you.”

During Haswell’s three-day visit to the Sanmen site, he never needed to leave the property. Basic necessities are contained on site, including a hotel, grocery and convenience stores, restaurants and recreational facilities.

While enjoying some comforts of home, Haswell was also able to see some familiar faces. As part of an ongoing training and observation program, Vogtle 3 and 4 Operational Readiness employees were also on site.

“Under a formal program, two engineers at a time from Vogtle 3 and 4 visit Sanmen for three-week rotations,” Haswell explained. “When we were there, two were leaving and two were arriving.”

As part of this exchange program, Vogtle 3 and 4 engineers regularly travel to China to observe Sanmen Unit 1 testing and startup and gain lessons learned. Conversely, a delegation from Sanmen Nuclear Power Company visited the Vogtle 3 and 4 site in May to learn about nuclear power plant generation management.

Before Haswell’s trip to China, he set up a meeting at Plant Vogtle to talk with the Operational Readiness engineers who he would later see at the Sanmen site. “Our engineers are there learning,” explained Haswell. “Having the opportunity to witness things first-hand at Sanmen is a huge help to us as we near our completion schedule. The people who have this experience will be the ones leading our start-up efforts.”

According to Haswell, the “lessons learned” by Vogtle 3 and 4 employees during their visits to Sanmen could not be gained in any other way.

“We all get those ‘ah-ha’ moments,” he said. “We see firsthand what the new Vogtle units will look like once they are complete. I now feel like I can visualize everything. Nothing beats being there and seeing it in person – there’s nothing else like actually being in the real space.”
EYE IN THE SKY: The Vogtle 3 and 4 construction site from an aerial perspective.

Photo by Corey Hitchcock/Jed Leopard
GET TO KNOW

Martin Washington, Interim Licensing Supervisor

By Mike Tyndall

Known as a hard worker and problem solver, Martin Washington’s competitive nature motivated him to earn a B.S. in Nuclear Engineering and an M.B.A. He brings his winning spirit to all aspects of his life, including his career.

Tell us about you. Who are you, where are you from and what is your passion?

My name is Martin Washington and I am a Licensing Engineer at Vogtle 3 and 4. I’m from Memphis, Tennessee. I have a passion for competition and winning. I found this to be my passion during youth sports leagues when I would cry after losses. I never understood the phrase, “It’s just a game,” or “We will get them next time.” Since the time I was born I’ve always wanted to win. Here at Vogtle 3 and 4, winning means earning our 103(g) finding by December 2018 - which is required to load fuel.

What is your educational and professional background?

I graduated from the University of Tennessee in 2009 with a BS in Nuclear Engineering. Following graduation I immediately began work at the MOX Project as a Radiation Protection and Licensing Engineer. I was responsible for one design change with the storage of waste drums that saved the company $1.2 million. Also, I worked on annual updates to the License Application for the MOX Project. While I was at MOX I also attained my MBA from the University of South Carolina.

What are your current job responsibilities?

As the Interim Licensing Supervisor, my team and I are responsible for the resolution of NRC concerns. Currently, there are five Resident Inspectors at Vogtle 3 and 4 and communicating their requests is no easy task. It takes teamwork, communication and confidence to interact with the Resident office, the contractor and Southern Nuclear subject matter experts.

What attracted you to the Vogtle 3 and 4 project?

I have been interested in working at Vogtle since 2012. As an Engineering student at the University of Tennessee, I was unaware of the differences between a Department of Energy project and a utility. After two years in the industry, and surviving three layoffs, I realized it was time to challenge myself in my career and apply to a utility company. While I envisioned that working at a utility would be challenging, fast paced and rewarding, my job at Vogtle 3 and 4 has exceeded my expectations. The Licensing group is faced with fielding Nuclear Regulatory Commission questions, resolving emergent issues and maintaining our regulatory margin daily. These challenges align with my passion for competition and winning. With the close of each business day, we have maintained our regulatory margin and advanced the project toward initial fuel load.

What has been the happiest day of your life?

If happiness is measured by the successful completion of a significant task, then I’d say graduating from the University of Tennessee was the happiest day of my life. College was probably the most challenging hurdle I’ve dealt with thus far in life. My friends were not in attendance and my parents lacked the intellectual experience to guide me through college. These circumstances were intimidating at the outset, but I was determined to win and earn a degree from the flagship school of the Southeastern Conference! Graduating with a degree in Nuclear Engineering has opened doors, bridged gaps and allowed me to grow in ways I’d never imagined. I am thankful that Southern Company allowed me to play on their team in the Licensing group to ensure Southern Nuclear maintains its Regulatory margin up to fuel load and beyond.
As far back as she can remember, Samantha Moats has cared for abandoned animals in need of a loving home. Growing up in rural Wisconsin, taking care of neglected or abused dogs and cats was part of daily life for her and her mother.

"We lived out in the country, surrounded by farmland and open fields," said Moats. "People knew we cared about abandoned animals. With plenty of land around us – plus a barn and other outbuildings – I guess they just assumed we would take them in. My mom and I would make them part of the family. We would nurture them, bring them back to health and then find new homes for them or keep them."

Immediately after graduating from high school, Moats joined the Air Force. At the time, she envisioned only a short-term stint in the military. However, her hard work and leadership ability gave her opportunities to continually advance and develop new skills, resulting in a rewarding 20-year career with the Air Force. During this time, she continued to rescue neglected animals whenever she could.

In December of 2013, she retired from the Air Force as a cryptologic linguist, a job that requires foreign language proficiency and the ability to analyze and translate written and verbal communications. One month later, she joined the Plant Vogtle 3 and 4 nuclear expansion project, where she now serves as project controls reporting and administrative supervisor. Units 3 and 4 are now under construction at Plant Vogtle’s existing site near Waynesboro, Ga., which has been producing power for more than two decades with Units 1 and 2.

Expanding Plant Vogtle is part of Georgia Power’s long-term plan to provide safe, clean, reliable and affordable energy to meet the growing energy needs of Georgia. The Vogtle expansion is the largest construction project in Georgia with more than 6,000 workers onsite today and 800 permanent future jobs. When the new units join the existing two units already in operation, Plant Vogtle is expected to generate more electricity than any other U.S. nuclear facility, enough to power more than one million homes and businesses.

After moving to Burke County, Ga., to join the Vogtle 3 and 4 project, Moats once again began looking for ways to help animals in need.

"All my life I’ve had a soft heart for helping animals," she said. "It doesn’t go away. When you have a compassion for animals, that stays with you."

Moats now supports the Old Fella Burke County Animal Rescue Center, named after the sickly and malnourished dog that was rescued and restored to health by the organization’s founder.

"They rely heavily on donations and volunteer support, so every dollar matters," she said. "Also, their services are necessary and fill a void in this area because there is no countywide animal control in Burke County, which covers more than 800 square miles."

She noted that the county seat of Waynesboro has a small shelter for dogs, but intake is limited to an area of only about five square miles within the city.

"I’ve always had a desire to help neglected animals," added Moats. "I’m thankful to have the opportunity to further support animal rescue in Burke County."

OLD FELLA - The namesake of the Old Fella Burke County Animal Rescue Center.
AT THE CORE OF IT: Construction personnel work inside the Unit 3 nuclear island. This will be the area where the reactor vessel will be placed.
Annual event powers community - supports local organizations

By Mike Tyndall

SOUTHERN NUCLEAR AND GEORGIA POWER EMPLOYEES WHILE BENEFITING A GOOD CAUSE.

More than 200 golfers from Georgia Power’s East region, Nuclear Development and various sponsors participated in the Citizens of Georgia Power (CGP) Charity Golf Tournament. The event, which took place at Mount Vintage Plantation Golf Club near Augusta, was supported by 20 additional employees who volunteered to help set up and run the event.

The tournament raised $58,000 in support of the Family YMCA of Greater Augusta and New Beginnings Christian Center. Also, a golf cart raffle associated with the tournament raised $10,398 for the American Cancer Society. Dustin Salvatore, a Union Electrician with the Vogtle 3 and 4 project team, won the golf cart raffle.

Funds directed to the Family YMCA will support the development of Camp Lakeside, located on the shores of Lake Thurmond in Lincoln County, Ga. The renovated camp will be transformed from its limited, rustic condition to serve children with disabilities or serious and chronic health conditions in a medically safe environment, along with able-bodied children from around the region.

Tournament proceeds will also benefit New Beginnings Christian Center of Augusta, which provides a variety of ministries that serve the local community. Proceeds from the golf cart raffle will support the American Cancer Society, a nationwide voluntary health organization dedicated to eliminating cancer.

FULL SWING: Georgia Power Area Manager Eric McIntyre drives it straight down the middle for a good cause.

GIVING BACK: Georgia Power and Southern Nuclear employees volunteered to help set up and run the event.
One team for ‘our’ community - Vogtle, Westinghouse, Fluor distribute school supplies

By Mike Tyndall

Representatives from Westinghouse and Fluor recently donated nearly 150 backpacks filled with school supplies to benefit the children of Burke County Public Schools.

The donations were presented to the United Way of the Central Savannah River Area during their 8th annual Stuff the Bus school supply drive in Waynesboro, Ga. Westinghouse donated 100 lunch bags and 100 sports bottles, while Fluor donated 100 backpacks. All other supply donations were made by Southern Nuclear, Westinghouse and Fluor employees. The bags were packed by site volunteers.

“The Stuff the Bus campaign is crucial for students who cannot afford supplies,” said Rina Powell, senior director of resource development for United Way of the CSRA. “It helps so many Burke County students start the school year with the tools they need to be successful.”

This year’s drive collected a variety of school supplies that were distributed to 800 students across the district’s seven public schools. The United Way of CSRA estimates 45 percent of students in the district live at or below the poverty level, which underlines the importance of their efforts to rally community members and employers in support of the program.

Powell noted that Plant Vogtle’s participation was the largest of the drive, adding, “the plant] has given so many students the opportunity to not feel left out and focus on learning this year.”

Vogtle employees actively participate in annual giving to the United Way. The 2016 Vogtle Unite Way Campaign kicked off this summer. This year’s goal is 95 percent participation, with a stretch goal of 100 percent. To provide incentive, employees who turned in pledge forms or used ePledge early were entered into drawings for prizes. This year’s campaign has already raised more than $200,000 through employee contributions and various fundraisers.

United Way of the CSRA provides funding for more than 40 health and human service programs that help make a difference in the lives of local residents every day.

To check out more photos, videos and resources go to - http://bit.do/vogtle34

Sweat equity - Vogtle employees volunteer to clean up yard of Shell Bluff resident

By Mike Tyndall

Plant Vogtle and Georgia Power employees recently donated their time and energy to participate in a Neighborhood Renewal project in the Shell Bluff community near Plant Vogtle. Yard clean-up was the primary goal of this team effort.

Citizens of Georgia Power Waynesboro chapter also participated in the clean-up, along with Vogtle 3 and 4 employees and the homeowner’s grandsons. Also participating was Georgia Power East Region Vice President Fran Forehand.

The Neighborhood Renewal program is part of the Vogtle Community Alliance Project, a collaborative initiative between company employees and Vogtle-area community leaders to make improvements in the lives of those who live near the plant.
The sun sets on the Vogtle 3 and 4 construction site near Waynesboro, Ga.
We Value Diversity & Inclusion

www.southerncompany.com/careers

Photos by Joel Leopard