

SCANNER

OCTOBER 2008 - VOLUME ONE - ISSUE FOUR

**LINE CREWS WORK HOT LINES
RIGHT-OF-WAY MAINTENANCE
EMPLOYEES ON MISSIONS**



**SOUTH
MISSISSIPPI
ELECTRIC**
POWER ASSOCIATION

SCANNER

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Cover photo: Line 515, Structure 52, taken by Jim Evans

WHAT CAN GO WRONG HERE?



Jim Compton, General Manager/CEO

Top 10 Risks Faced by SME

1. Ability to meet system growth
2. Extended loss of a base load unit
3. Rising cost of new generating units
4. Rising cost of fuels
5. Securing financing
6. Long-term fuel disruption
7. Carbon issues
8. Regulatory issues
9. Maintaining financial strength
10. Extensive storm damage

In conjunction with our Wall Street rating process, we surveyed senior management, the Board of Directors, and outside attorneys as to the greatest risks we face at South Mississippi Electric. After compiling the responses, the top risk was identified as "Providing Capacity and Energy to Meet System Growth." There are a number of factors which are associated with this risk. We have a major capacity addition that is currently under construction—Plum Point—and this project needs to stay on schedule. We also have three major capacity projects in the initial developmental stages: the Moselle repowering; a self-build plant; and the next Grand Gulf nuclear unit. At least two of those projects need to happen in order for us to safely and economically meet future growth needs.

The second greatest risk identified in the survey was the loss of a base load unit for an extended period (Morrow, Grand Gulf, or Plum Point in the future). This is due to the very large difference between the production cost of these base load units and the market expense for replacement power. Such replacement cost can be an additional \$300,000 to \$450,000 per day. Thus, a long-term outage could be devastating. The third-ranked risk concerns the rapidly escalating cost of new generation construction, followed by the risk of natural gas and coal pricing. We have observed estimates for power plants constructed by others increase by 25% a year and more. Fuel cost has also risen substantially, in large part due to international demand. The fifth risk is related to financing for new capital projects. RUS funding is no longer a sure thing, and we need to modify the way we do business to ensure continued access to capital markets. Without financing, there will be no new generation projects built.

The rest of the top ten, in order, are: fuel disruption for an extended period; carbon issues; governmental/regulatory affairs; failure to maintain our financial health; and massive storm damage to our system. All of these risks are real, and any one could have a materially adverse impact upon South Mississippi Electric and its Members.

The purpose of identifying these risks is to determine where we need to concentrate our efforts and planning to either prevent the risk from occurring or to have alternate plans in case the risk event develops. These are not new issues, and they are not unique to South Mississippi Electric. As a management team, we have already given these risks much thought. This risk identification exercise provided Board input into the process and permits us to refocus on the most important challenges.

These are challenging times in the electric industry, particularly in the generation segment. There have been enormous increases in fuel and fuel transportation costs for existing generation, as well as dramatic increases in new construction costs. These create upward pressures on rates, which create economic stress for our end-user members. At the same time, federal and state regulatory bodies are imposing more and more environmental and reliability requirements which also drive our costs upward. As a result, all electric power providers are witnessing increased rates. We are fortunate that our increases thus far have been lower than those of our surrounding utilities.

While the risks and the challenges have become greater and greater, the primary solutions to meeting today's challenges are still the same: remain focused on the most important issues; understand the bulk electric business; look to the future, not the past; communicate with our membership; and work together. There is no efficient business model that does not involve knowing your business, close communication, and teamwork.

We are not communicating these risks related to our Association to scare anyone or to create insecurity. We all need to be informed with regard to what we are facing within our industry. We all need to understand that in the next decade the electric industry will be much different and more difficult than in the last decade, and that we will all need to be very dedicated to our mission in order to be successful in meeting these challenges.



Quality Vegetation Management Program is Showing Positive Results

Keeping the rights-of-way of South Mississippi Electric's more than 1600 miles of transmission lines clear and accessible has always been a key to providing reliable service to our Members. It is also essential to the safety of our line crews when they work in the field.

For many years, mechanical cutting and bush hogging have been the standard practices for clearing utility rights-of-way. These were relatively cheap and easy methods but provided only short-term results, especially in the South where vegetation grows back quickly. Companies across the country typically use revolving schedules to cut sections of their lines every four to six years. SME has tried to maintain a schedule of every four years.

Prior to 2006, SME had made only limited use of herbicide application for maintaining its transmission rights-of-way. Since then, Wesley Graham, right-of-way supervisor, has expanded use of the technique, as it has the capability of reducing costs and being more efficient than the standard bush hogging process.

"We conducted extensive research into how other utilities were using Quality Vegetation Management (QVM), which is a set of standards used by professionals for effectively clearing and managing vegetation," said Graham. "Since we have adopted this approach as our primary method of maintaining our rights-of-way, we have seen excellent results in terms of controlling the vegetation as well as our costs."

The cost of bush hogging has increased significantly with the rise in fuel prices. By using QVM, Graham is able to reduce the cost of maintaining South Mississippi Electric's 20,000 acres of right-of-way from \$175 per acre for bush hogging to only \$65 per acre for spraying the areas with herbicide.

Even more importantly, the cost of using QVM will continually decline over the next few years. The process currently being adopted is to mow one year, spray the following year, and then skip a year before spraying again.



Following the initial spray, the process requires only spot spraying, which will cut costs even further. The overall cost of right-of-way maintenance could be reduced by one-half within five years.

"The herbicide process also makes a positive impact on the environment, which we think is very important," said Graham. "Bush hogging requires the use of heavy equipment that can harm wildlife and its natural habitat. QVM allows us to minimize the use of heavy equipment in an attempt to sustain and maintain the natural resources and habitat for wildlife."

Products used in the QVM process include only herbicides registered under the Environmental Protection Agency's Reduced Risk Pesticide Initiative, which means the products have undergone rigorous tests to ensure that their use does not jeopardize the safety of sensitive species of both plants and animals. The products specifically target broadleaf, woody species while causing no harm to grass, and they are sprayed by QVM certified applicators who receive extensive training.

"We are trying to create an herbaceous, grassy environment that is as safe for our line crews as possible, while still being good stewards of our land," said Graham. "These are by far the best methods available, and I am excited by the results so far."

Tommy Garrard and William Murphy have been instrumental in implementing the program. As line crew members for many years, both have a thorough knowledge of the system and are able to help the spray crews find their way. They also are able to help avoid any obstacles the crews might encounter, navigate them around areas that are deemed sensitive or "no-spray areas" such as pastures, and assist with land owners.

"Most of the land owners we have talked with are glad to know we are moving to this kind of program," Graham said. "Once they understand how safe the program is and the kind of results it will have, they have been very cooperative. They like the look of healthy land as much as we do."

The success of the QVM project is beginning to be seen at the operations level as well. When Hurricane Gustav skirted SME's system with tropical

storm force winds in early September, there were no operations on any of the lines. (See sidebar story.)

"We all thought something was wrong with our phones," Graham joked. "But seriously, it was a remarkable accomplishment. The integrity of our system held, and I would like to think it was partly because of the results we are seeing with our QVM program."

The line crews will also see significant benefits with the results of the new program. In the past, transmission line maintenance, which involves climbing and visual inspections, had to follow the bush hogging schedule.

"Gaining access to lines with three years of growth was extremely difficult," said Jim Evans, transmission maintenance manager. "The woody species and other bushes grow so high in that time that you cannot see over them, and it is difficult to drive through them. We were limited in how we could schedule our maintenance rotation.

"If we achieve the results we hope for with this herbicide program, we will have much more access to lines any time, not only for maintenance but also during emergency restoration. It will be much easier to move quickly down a line on a four-wheeler to find any problems, and it will also be easier to get our heavy equipment and trucks to a location."

Safety for the crews, always a primary concern, will also be enhanced. "Having more visibility along the lines will make our jobs safer, and we will be more effective."

Graham, a self-proclaimed conservationist, received a bachelor's degree in agricultural extension and education and a master's degree in agronomy from Mississippi State University. To help SME play an active role in the protection of natural resources and safety of wildlife, he is currently working with such agencies as the U.S. Forest Service, U.S. Fish and Wildlife Service, the National Wild Turkey Federation and Quail Unlimited.

The achievements of South Mississippi Electric's efforts with the QVM program have already been recognized. The company has been nominated for a QVM Project Habitat Award sponsored by BASF Professional Vegetation Management. The awards are presented to outstanding vegetation management projects that best demonstrate the principles and practices of the process. Winners will be announced at a banquet in 2009. In addition to the nomination, SME's QVM project will be featured in an upcoming issue of *Latitude* magazine, a national professional vegetation management publication.

By Julie Walker

Gustav Creates Problems for Members

Hurricane Gustav made landfall early on Labor Day Monday (September 1) in south Louisiana, causing significant damage throughout the state. In Mississippi, several South Mississippi Electric Members also had to deal with damage and major outages.

Coast Electric, Singing River Electric, Magnolia Electric and Southwest Mississippi EPA had more than 86,000 customers out of service after the storm moved through their areas, with Coast, Magnolia and Southwest especially hard-hit. Southern Pine and Pearl River Valley also had scattered outages.

Transmission lines on the Entergy system were damaged and out of service for several days, but SME's lines to Members' substations in the off-system were returned to service by late afternoon on Wednesday (September 3). Southwest and Magnolia, which serve areas that suffered the worst structural damage, had power restored to all of their members within one week.

Distribution workers from co-ops around the state, as well as many from out-of-state, provided greatly needed assistance to our Members. Singing River Electric, as well as others, later sent workers to assist in the devastated parts of Louisiana.

South Mississippi Electric's on-system was virtually unaffected, with no operational interruptions occurring during the storm. On the day after landfall, as the storm's trailing feeder bands moved through the area, a tree fell on a line in Jasper County.

"The fact that we experienced tropical storm force winds for many hours yet had no transmission operations or outages is outstanding," said Nathan Brown, chief operating officer. "I think that says a lot about all the work that has been invested in our right-of-way maintenance since Katrina, as well as line maintenance and construction efforts."

SME's emergency management team was active for several days as forecasts suggested that Gustav might come ashore closer to the Mississippi coastline. Coincidentally, the team was participating in a hurricane response drill which was conducted by Statewide throughout the preceding week, so those efforts shifted to real planning. Employees who had been practicing plans as part of the drill also began gearing up for any necessary response.

"The drill helped us identify areas of our emergency response plan (ERP) that needed to be expanded or clarified," said Marcus Ware, assistant general manager, who coordinated the management team. "Although it had only been three years since we had gone through a significant storm event, we have many people who are either new or in new positions, so the preparation was beneficial."

Before it became apparent that Gustav would slide to the west, arrangements were made to have additional crews on standby and provide for their logistical needs. Many other preliminary preparations were also made, including topping off fuel tanks at all facilities and lining up emergency staffing at the control center and plants.

"Everyone did an excellent job with their preparations," Ware said. "We were ready had the need to respond become a reality."



Right-of-way corridor for lines 173 and 31, north of Beaumont, before (left photo) and one week after spraying in August (right photo)





HOT WORK ON ALCORN LINE ONLY A PART OF CONTINUOUS EFFORT

Line crew employees spent three difficult weeks in July and August near Lorman replacing eleven structures on Line 515, which serves Alcorn State University in Southwest Mississippi EPA's service area.

The terrain in the area, which includes numerous hills and steep drop-offs, made the work laborious. The crew also worked the line while it was energized, so had to use extra care and precautions.

"That line is the only source of power for the Alcorn substation, and the project was expected to take at least three weeks to complete," said Brad Wolfe, chief of transmission and support services. "It was not practical to take numerous sustained outages, so the work was done with the line 'hot.' It is more dangerous that way, but our crews do this kind of work regularly and know how to do it safely."

The 7.8-mile, 115-KV line was built more than a decade ago. Recent inspections had revealed that numerous poles scattered among the line's 73 H-frame structures had deteriorated and needed to be replaced.

South Mississippi Electric's line inspection and maintenance plan is a significant part of ensuring reliable service. The plan involves aerial inspections of the entire system every three months. In addition, crews inspect 25% of the system each year—one third of that visually from the ground and two thirds by climbing. It has gotten to be a huge job—overall, the system has more than 22,500 poles. Of that total, about 15% are concrete or steel and the rest are wood.

"From the air, we look for broken poles, crossarms or other damaged hardware which could cause problems, as well as danger trees," said Jim Evans, transmission maintenance manager. "On the ground, the visual inspections normally involve riding four-wheelers the length of the rights-of-way to take a good look at the poles and lines, where we can see deterioration or other problems. During the climbing inspections, we climb each pole and make sure everything is tight and up to code."

Work required to correct any problems revealed by the inspections is scheduled as needed, depending on the severity of the problem or the potential for affecting the reliability of the system. Evans' crews work closely with the engineering department to determine the best solutions.

"Under normal circumstances, we can change out poles as we make our inspections," Evans said. "We contact engineering to have them evaluate whether anything needs to be different. Sometimes they may be planning to up-rate a line, which would eventually call for taller poles to fit into the new design. Otherwise we use the same specifications of the existing pole."

The Lorman job was not normal. Because of the terrain, getting to the structures was half the job. In many cases, existing roads had become overgrown or had washed out. Limited access to the right-of-way required building new routes through the heavy brush that could accommodate 35-foot-long bucket trucks, as well as the long pole sections. The crew's bulldozer was essential to accomplish the task.

The replacement structures were two-piece, pre-fabricated steel poles (ranging in height from 60 to 95 feet) and steel crossarms. The crews have adapted old conveyor belts from Plant Morrow to use as skids, allowing the poles to be pulled and, at the same time, protecting them from damage.

Once the crew reached the location of a structure to be replaced, the bulldozer was used to level off portions of the right-of-way to create enough space for two bucket trucks, the digger derrick, and the crews to work safely.

"In most cases it took more time to cut our way in along the line and prepare the site than to replace the structure," said Evans. "It is tough, hard work. Once we got to one site and were able to get to the line work, we could send the dozer ahead to start preparing the next site. This is probably one of the roughest areas in any part of our system."

Attention to safety, as always, was key to the success of the project, as much for creating access as replacing the poles with energized lines above. Crew members had to constantly watch for drop-offs as the heavy

equipment and materials were moved into place. It also rained during the project, which created slippery conditions.

Safety and planning meetings were held several times each day in order to ensure that every member of the crew knew how tasks would be addressed and what their assigned roles were. For such projects, it is imperative that everyone understands the big picture as well as individual expectations. Strict safety guidelines govern all of the crew's efforts.

"Even though many of our guys have worked on these kinds of projects for years, each one is different and presents its own challenges," Evans said. "It is an opportunity for the younger guys to learn, but everyone looks out for each other. Each man has to watch what is going on. The learning curve never stops."

"In this instance—working hot lines in difficult physical locations—everything has to be right. If it is not, we stop and make it so. It is important that the trucks are stable and that we can maintain our proper clearances. I am proud of the way the crew worked this job during some long days—there were no injuries and no accidents."

The poles had to be carefully raised between the energized conductors and set in place; then the crossarms and hardware were installed before two 2-man teams in bucket trucks transferred the conductor to the new H-frames. After the transfer, the old wood poles were cut down in sections.

A new model of suspension shoes was used on this job for the first time, which proved to save a considerable amount of time. The new shoes, which attach to the bottom of the insulators to hold the conductor, have rubber linings to protect the conductor as it expands and contracts. With the old shoes, pre-formed armor rods had to be wrapped around the conductor to prevent it from rubbing inside the shoe and possibly weakening. Installing the older model normally took two to three hours of hot stick work, compared to only ten minutes or so to complete the process with the new shoes.

"We are constantly looking for new technology to help make the lines safer and easier to work," said Evans. "This project was a big success."

Metering Technology Reflects Industry Changes

Bulk power. High voltage and distribution voltage. Transmission transformers. Voltage x current = power (in watts).

The electric power industry is obviously one that relies on technology and precision. Equipment, design and planning have advanced significantly over the years.

Measuring the exact amounts of wholesale bulk power that South Mississippi Electric provides to its Members at more than 185 metered delivery points on SME's on- and off-system requires equipment as sophisticated and modern as any in the system. (Billing information from the borderline system is provided by Mississippi Power). It is not like metering the end use of our product at a customer's house.

The meters used by South Mississippi Electric measure two dynamics of power delivery. The overall amount of power is measured over an hour time period and is called a kilowatt hour (kWh). The amount of demand, which rises and falls throughout the day, is measured over a 15- or 60-minute time period and is called a kilowatt (kW). Knowing the peak demand at each substation is important because it is what determines SME's overall system demand, or how much generation is needed to meet the combined system peak.

If you think about electricity flowing along lines similar to the way water flows through a pipe, it is necessary to measure the current (flow amount) and voltage (pressure) to determine the amount of power transferred through each substation. Because the voltage and current levels are so high, the metering process uses highly accurate equipment to reduce them to measurable levels—information the meter then uses to calculate the delivered power. The meter also takes the real time data and determines the average and peak demand for every fifteen-minute interval.

South Mississippi Electric's metering process has seen constant changes over the years, due not only to technological advances but also to increased power demand. Bobby Spiers, meter and substation inspection supervisor, has worked for SME for 29 years and has seen a number of those changes.

"Being able to correctly measure power flow and sales is an important part of what we do as a power supplier," said Spiers. "We constantly try

to improve our performance by keeping track of the latest technology, as well as through our knowledge of the process.

"Our jobs are also about building relationships with our Members, and I believe we have earned a reputation for providing outstanding service for our members. We work together—that is the nature of being a cooperative."

One of the more recent technological changes in the process is using wireless cell phone systems to gather data from each of the substation meters. The system was also upgraded from analog to full digital cell technology during the past two years as cellular providers moved away from their analog equipment. According to Spiers, however, that is not the only change.

"For many years, electro-mechanical meters were installed with magnetic tape recorders and a clock to record the amount of energy passing through a substation," he said. At the first of the month, meter technicians, along with other South Mississippi Electric employees, gathered the tapes from each location and brought them to Headquarters so they could be read to determine billing data. Checking the reading only once a month sometimes meant that it was hard to catch any problems that might develop.

"Now, the meters collect real-time data that is sent regularly throughout the month to our computers. Being able to know quickly if there is any problem with the collection and transfer of information is a significant improvement."

Kerrie Owen, billing specialist, is responsible for preparing Member billing statements for the amount of energy used during a month. Substation meter readings are compiled weekly and confirmed at the end of each month in order to determine overall usage and the highest peak demand used during 15- and 60-minute periods. Each cooperative is billed monthly for the bulk power delivered through its substations. Bills are sent electronically by the 5th of each month, and payments are received by the 20th.

Metering engineer Travis Brignac designs meter installations at the substations, which includes sizing instrument transformers, programming the meters and configuring the method of meter communication. Although data is recorded in fifteen-minute intervals for billing purposes, Brignac can retrieve data for any specific time, if needed. He can call the meters from his computer to see exactly what is happening at each substation, minute to minute.



To ensure that metered data is as accurate as possible, the instrument transformers that scale the energy flow are sized based on average and peak demands. Every year, peak load data from each of the instrument transformers is analyzed to ensure that their ratings are not exceeded. When an instrument transformer's ratings are no longer sufficient for a substation's demand, SME's meter technicians will change them out, thus ensuring their accuracy.

The meter technicians also regularly make sure that the readings measured at the substation are consistent with the data retrieved from the meters. On regularly scheduled visits to each substation, the technicians collect data measured by the meters to compare with the electronic data sent through the digital cell phones to Brignac's computer.

"It is a true specialty," said Brignac of the metering department's job. "The process consists of continually checking and double checking the data in order to meet our mission of providing outstanding service to our Members."

Brignac, Owen and the entire metering department continually monitor the process in order to ensure consistent readings. Because the flow of electricity is constantly recorded, data from a specific time can be reviewed in the event of an inconsistent or questionable reading. The intricacies of the meters guarantee accurate readings, which are necessary for billing the Members each month.

"The flexibility of these meters allows us to be the effective energy provider that we are," said Brignac.



Lead Technician Jody Lott (far left) and Meter Technician Charles Hennis take readings at the Rawls Springs substation. SME has 185 metering locations throughout its on- and off-system. Each meter is capable of providing real-time data about voltage and current levels flowing from the transmission side of a substation to the distribution side. The data, which is regularly checked and verified, is accessible by computer for billing and testing.

EMPLOYEES TAKE PART IN INTERNATIONAL MISSIONS

By Nicole Raulston



Brandon Collier, material handler at Plant Morrow, Crystal Crawford, human resources coordinator at Headquarters, and Matt Prentiss, coal yard helper at Plant Morrow, along with nine other members from Memorial Baptist Church in New Augusta, spent two weeks in July "loving the unloved" on a mission trip to New Delhi, India.

The team spent the majority of the two weeks at the House of Hope for Children, an orphanage managed by the Independent Baptist Ministries of India. The group assisted with the facility's everyday needs, including feeding, helping with homework and simply holding the children. Because the orphanage is Christian-based, it receives no government aid or funding. In fact, the children raised there will never be able to hold a job within their country because of being raised as Christians. Most of the children, however, return to the orphanage to work once becoming adults.



The experience, according to Crawford, was "life changing." It is the simple things in life, she said, that made the biggest impact. With government-controlled water supply and lack of air-conditioning, life in New Delhi is unlike the comfortable life we know in America.

Two days of the trip were spent in leper colonies located throughout the area. "The lepers were so eager for our attention," said Crawford. "They could not believe that we were willing to spend time with them, hug on them and truly care about their well-being."

Crawford's 16-year-old son, Destin, also went along with the group, as did Josh Ladner. Josh is the brother of Justin Ladner, material handler at Plant Morrow. "It was great to see Destin put his faith into action," said Crawford. "He really bonded with a young girl at the orphanage, and I truly saw a change in his heart and his life."

Although India is a mostly Hindi-speaking country, the children that attend school are taught English. The team was able to communicate easily with the older children at the orphanage and with the children who live near the mission house where the team stayed. The country is predominantly Muslim and Hindu in faith. Christians are not allowed to speak of their faith on the streets or publically proclaim Christian teachings.

"We were able to form relationships with two boys who lived across the street from our mission house," recalled Collier, who also led the music for the team. "They were so Christ-like in their actions, but we knew that they did not believe in the same God we do. Because we were not able to speak of our faith outright, we learned to share the Gospel with our actions. We planted seeds while we were there, and now we pray that those seeds will be watered by future missionaries who go to that neighborhood."



The boys, ages 13 and 16, were eager to spend time with the team and learn more about American culture. "Both boys were very educated," said Prentiss. "The younger brother is a successful cricket player in New Delhi, and the older one can already speak six languages. The older brother has plans to come to the United States in order to become an engineer. We hope he makes it."

National security issues arose while the team was in India when a city near New Delhi was bombed by Pakistani terrorists. It was discovered

that New Delhi was a target for the next bomb. Fortunately, the Indian government learned of the threat and the terrorists were deterred. Even with the security scares and lack of common luxuries, the team agrees that the trip was well worth the sacrifices. "It could have been a scary situation," said Prentiss. "But we were all so focused on serving God that I do not think any of us would have minded suffering if it meant that people could hear the name of God."



Several other South Mississippi Electric employees regularly participate in international mission trips. Tommy Clark, control systems manager, has led yearly mission trips to Nicaragua since 1995.

"Nicaragua is my heart," Clark said. "The people there are so eager to love and be loved." Over the past thirteen years, Clark has seen great changes in the area and in the people. "Overall, the people have become more responsive to what we are offering, both in medicine and in our message. They have come to a place where they allow us to serve them."

Darryl Roberts, plant engineer at Plant Morrow, and Jack Thompson, retired plant manager at Moselle, have also traveled to Nicaragua and Honduras for mission efforts. Brent Stansell, Operator V at Plant Morrow has also led a couple of trips to Honduras; and Allen Keene, supply chain manager at Headquarters, has traveled to Nicaragua.

"Nicaragua has become a special part of who I am," said Keene, who is a member of Providence Baptist Church in Hattiesburg. "I encourage anyone who is interested in serving internationally to give it a try. Those of us who have gone could talk about it all day, but it is something that has to be experienced first-hand. It is a humbling experience that will change your life."





Training Facility at Plant Morrow Dedicated

Nearly 150 people, including family, friends and co-workers were in attendance for a dedication ceremony honoring Assistant General Manager Marcus Ware on Thursday, August 28. The new facility at Plant Morrow has been named the Marcus Ware Training Center in honor of Marcus' 34 years of service to the company.

Marcus began his career with South Mississippi Electric in April 1974 when he was hired as plant engineer at Moselle. He became manager of production in 1977 and was promoted to his current position in 2004.

Speakers at the ceremony included Jim Compton, General Manager and CEO; Charles Stuart, plant manager at Morrow; Chris Rhodes, plant manager at Moselle; Jack Thompson, retired plant manager at Moselle; and Marcus' son Matthew Ware, Wiggins district manager for Pearl River Valley Electric Power Association. Marcus also spoke, noting that the building will serve a wide variety of employee needs for many years to come.

Construction on the 5,569-square-foot training center began in December 2007 and was finished in August. The multi-purpose facility includes space designed to accommodate up to 185 people for meetings and training activities, as well as a full-service kitchen and a porch area behind the building.

"No one deserves this honor more than Marcus," said Compton. "His service and dedication to our organization have been unwavering, and throughout his career he has valued and supported safety and training as primary priorities."



HEADQUARTERS UPDATE

Renovation construction at Headquarters is entering its fifth month, with progress continuing on many fronts.

On the 6,000-square-foot main office addition, the structural steel was erected and outside block walls were laid and filled with concrete. The addition is being constructed in compliance with FEMA standards for flood zone areas, which is three and a half feet higher than the existing main building. *(below)*



In the new communications shop, the structural steel has been installed for the mezzanine, and slabs for the upper and lower floor are complete. *(below)*



Contractors are also drilling 172 geothermal wells along Highway 49 to serve the overall mechanical system for the campus. *(photo to right)*

New Employees



Tania Barnes began working as Office Support at Headquarters on July 8. She is a graduate of Hattiesburg High School and Antonelli College, where she earned a degree in business with an emphasis in office administration. Before coming to SME, Tania worked at Pine Belt Mental Healthcare Resources in the Children's and Adolescent section. Tania is married to Kevin and they have four daughters, Justice, Mia, Kaytlynn and Nyla.



Kevin Shoemake began working as an Instrument Tech III at Plant Morrow on July 6. He is a student at the University of Southern Mississippi studying electronics engineering technology and was previously a co-op student with the Engineering Department at Plant Morrow. He is a graduate of Perry Central High School and enjoys hunting and fishing.



Christa Bishop was hired as SME's Staff Attorney on July 21. She is a graduate of Vanderbilt University and Mississippi College School of Law. Previously, Christa worked with the law firm of Burroughs and Keene, LLC, in Atlanta. She is a member of the state legal bar in both Mississippi and Georgia. A Hattiesburg native, Christa is a graduate of Hattiesburg High School and is a member of the Meistersingers. She is married to John and enjoys singing, reading and traveling.



Carlos Bowden began work as a Laborer at Plant Morrow on July 21. Carlos had previously worked at Plant Morrow in 2005-06 before moving to the Monterrey Bay Waste energy facility in Panama City, Florida. He is a native of Dothan, Alabama and enjoys sports and music. Carlos is married to Schuntel and is the father of 13-year-old twins, Andre and Raven.



Chris Keith was hired on August 4 as a Laborer at Plant Morrow. He is a graduate of Pearl River Community College with a degree in arts and business. Before joining SME, Chris was a self-employed carpenter and is an experienced landscaper. Chris grew up in Purvis and graduated from Purvis High School. He is married to Christi and has three children, Savannah, Katelyn and Logan.



Laborer **Michael Truitt** began working at Plant Morrow on August 4. Michael graduated from Petal High School in 2004 and has attended Jones County Junior College and Pearl River Community College. In his spare time, Michael enjoys hunting and fishing.



Roger Lynch began work as Planning Engineer on September 8. He is a graduate of Auburn University with a degree in Electrical Engineering. Roger previously worked as shift supervisor at U.S. Steel. He grew up in Talladega County, Alabama and graduated from Childersburg High School. Roger is engaged to marry Chemese Leverette next summer.



Laborer **Jason Martin** started at Plant Morrow on September 15. A native of Sumrall and an Oak Grove High School graduate, he also is a 2007 graduate of Pearl River Community College, receiving an associate's degree in electronics technology. Jason comes to SME after working the past nine years as a general maintenance mechanic at Forrest General Hospital's engineering/maintenance department. He and his wife, Lisa, live in Sumrall.



Josh Kittrell began working in vehicle maintenance at the FOC on September 28. Josh is a graduate of Petal High School and attended Jones County Junior College. Before coming to SME, Josh worked as the parts sales manager at Auto Zone in Petal. He also has experience in pipeline construction and equipment operations. In his spare time, Josh enjoys building and racing cars.



Pattie Lowery was hired as a Laborer at Moselle on September 30. The daughter of retiree Harold Lowery, Pattie graduated from Petal High School and attended William Carey College. She has worked in the medical field for the past twelve years and enjoys fishing and riding horses.

INFRARED HELPS UNCOVER HOT SPOTS

Electric systems are designed to harness powerful forces—to control the same kind of uncontrollable energy found in lightning.

We have come a long way in that pursuit, but electricity continually tries to escape the bounds we place on it. An ongoing effort is required to make sure that the weakest individual parts of our transmission system do not create problems for the system overall.

Any buildup of heat in an electric system is a sign of a developing problem. Increasing temperatures can ultimately cause equipment to melt or fail, causing an unplanned and expensive outage. South Mississippi Electric has been using infrared technology to help identify “hot spots” throughout our system and those of our Members.

Infrared is an energy similar to visible light but with a longer wavelength. All objects emit a certain amount of radiation relative to their temperatures. Generally speaking, the higher an object’s temperature, the more infrared radiation it emits. Infrared energy is invisible to the human eye but can be detected by cameras that form images using infrared radiation, similar to the way common cameras form images using visible light. Infrared even works in total darkness because ambient light levels do not matter.

“We use an infrared camera to measure temperatures on transmission and distribution line equipment and in substations,” said John Gilbertson, substation and communications manager. “The infrared surveys detect hot spots that are indications of bad connections, high impedance connections or equipment which is approaching failure.”

For several years, South Mississippi Electric hired outside consultants to conduct infrared surveys, which were also available to each of our Member

systems. In 2006, SME purchased its own infrared camera and three employees—substation maintenance technicians Josh Beech and Todd Fortenberry and metering technician Dusty Sledge—were trained to use the device.

“Having our own camera now allows us to be more flexible and thorough in scheduling surveys of our substations and lines, as well as those of our Members,” Gilbertson said. “This year, ten of the Members requested the service. It has become one of the top services we can offer to our Members, and it has enhanced the relationships we have with their employees involved in the process.”

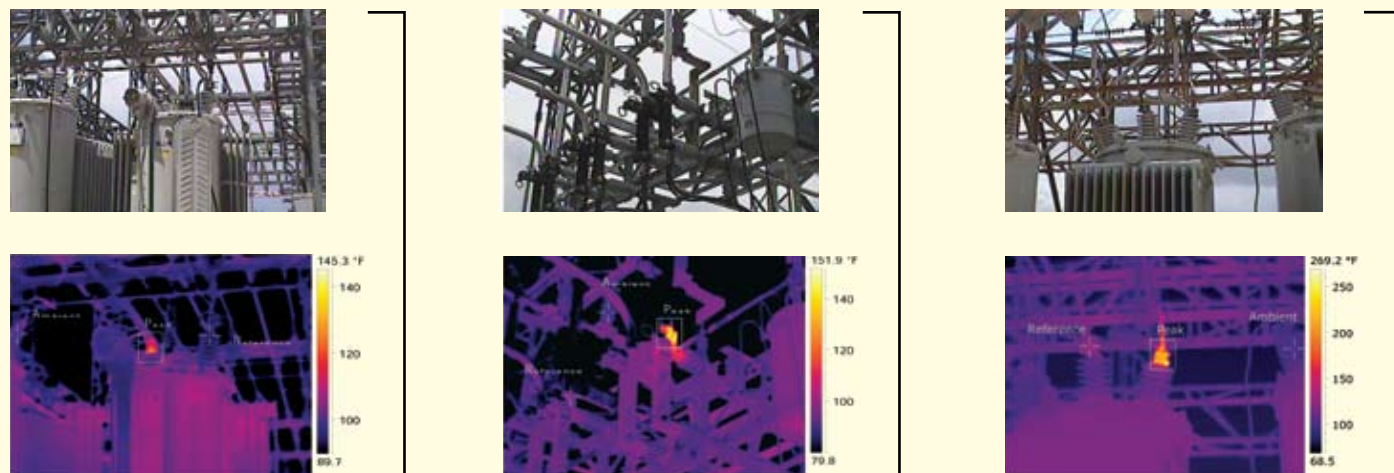
The new cameras are easy to use and provide quick results. The technicians bring back digital images of equipment and connections where likely problem areas exist, such as bushings, switches and lightning arrestors. The images and the information they provide are then turned into reports by Ted Bower and Tammy Haas, technical support staff members, and forwarded to Member contacts.

“The nice thing about owning our own camera is that now we can return to the location after corrections are made to ensure that the repaired or replaced components are working properly,” Gilbertson noted. “Before, we had to wait until the next year’s survey.”

This year’s surveys were conducted over the past two months, during times when system load was at its highest. The usefulness of the surveys was seen firsthand on September 16 when testing at Gwinville Junction showed signs of potential failure looming in a lightning arrestor.

“We were able to take a quick maintenance outage to replace the equipment, rather than risking a failure that would have caused an extended outage,” Gilbertson said. “The camera has more than paid for itself many times over.”

Infrared images (below) show temperature differences not visible to the human eye.



The Power of 12



G R O W I N G M I S S I S S I P P I

Our Mission:

Deliver the South’s best value for safe and reliable electric energy and serve as a common resource for our Member-owners.

Our Competitive Strengths:

- An experienced, skilled work force
- A commitment to employee safety and system reliability
- A long-term contractual relationship with our Member systems
- Financial health, including our Members
- Sustained load growth in our Members’ service territories
- Long range planning for cost-effective generation resources
- Fuel diversity in generation resources
- Environmental stewardship

The Greenest Power Is Power Not Used.

Electric demand continues to grow steadily, which will

require building new generating plants in the near

future. Wise energy use can help offset some of

our immediate needs, and choices you make

now can actually reduce your usage. Install CFL

lights. Select energy efficient appliances. We

can’t put off all future needs and growth, but

nothing can be greener than energy not used.





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PERMIT NO. 294

The Scanner Magazine is published quarterly for
employees and retirees of South Mississippi Electric
Jim Compton, General Manager/CEO
Editor: Kurt Brautigam, APR