

# SCANNER

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**SECOND INTERTIE WITH ENTERGY  
NEARS COMPLETION**

**VEHICLE MAINTENANCE  
KEEPS SMEPA'S FLEET ROLLING**

**CONVERSION OF MB LOAD  
ACCOMPLISHED SUCCESSFULLY**

The Scanner Magazine is published quarterly for employees and retirees of South Mississippi Electric

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Cover Photo: Line crews prepare to set one of six poles needed to tap Line 168A to feed the new Southwest Lone Star 161kV switching station.

Photo this page: A massive Manitowac crane lifts the HRSG components into place on Unit 1 as work continues on the Moselle Repower Project.

## IN SEARCH OF AN AMERICAN ENERGY POLICY



Jim Compton,  
General Manager/CEO

We recently discovered video of a SME plant dedication in which a noted elected official gave some remarks. I quote some excerpts:

*I want to mention here we are out in the piney woods, out in the field, out away from industry—away from anything representing industry except the railroad; and here's this immense structure dedicated to countless thousands, even millions, of people in the future—to supply what? To supply power, to supply energy—which the*

*future decades pose for us perhaps America's greatest test—for our basic character, our ingenuity, our technology, and our know-how to find our way through this problem of readjusting to the energy situation where we are faced with conditions where we are going to change our ways, modify to some degree our habits, make the sacrifices that are necessary not only to overcome inflation but to overcome the possibilities of a scarcity of power.*

*...Let's not stop and get in a big argument over which kind of power is more necessary. We're going to need all of them. Coal—with augmented processes here to make us get twice as much heat or calories out of a ton of coal as we get now.*

*...We do have that great abundance of coal, which may be the only abundance that we have. We've got to make arrangements some way, somehow, to keep from continuing to pay out \$45 billion per year for imported oil, where just a few years ago we paid only \$5 billion for that purpose. It's helping destroy the soundness of our dollar; it's upsetting values; it's contributing to conditions that make an older couple have to spend their life savings to pay their current bills. Conditions which cut off the chance of young couples that are inclined to save, but their earnings are taken up in the sheer cost of living.*

*...We must have more nuclear plants to generate electricity. We must further overcome whatever danger [exists]...I think; but whatever [the risk] is, it must be overcome better because I think we'll have a tremendous production in that field of nuclear power plants. And right on into the possible uses of many others: wind, whatever we have, including power from the sun. Let's not run away because we can heat a home or a school building and other things with solar heat now to think that's going to solve our problems. Not soon; not soon. Many decades away, in my opinion, and many billions of dollars of added cost before we can*

*have heat from the sun that will turn the heavy wheels of industry necessary to maintain our way of living. But those things can be done, and we'll meet those issues. We've been a little slow in Congress. I think all of us there realize that it has been impossible to get one bill—one bill that would cover our entire economy and properly adjust and regulate everything. There's been nothing—nothing—before the Congress in my time that's as far-reaching and as sweeping and as upsetting to our economy in many ways as this so-called "energy bill."*

These remarks were made by Senator John Stennis at the dedication of Plant R. D. Morrow in 1978. What is remarkable is that Senator Stennis' description of the need for a national energy policy is still true today. Thirty-three years, six presidents, and several Energy Policy Acts later, Congress and the President still find energy policy too hard and too upsetting to deal with.

The only significant change from 1978 to 2011 is that the United States has moved from paying out \$45 billion per year for imported oil to paying out \$260 billion last year, with 2011 promising to be much higher.

The major problem, in my opinion, with past attempts at federal energy legislation is the insertion of political policy so as to create winners and losers of different energy technology or providers. Certain forms of energy, such as renewables or ethanol, are heavily subsidized or mandated, which prevents free market economics from working and stifles innovation. I believe putting the subsidy money into research and development would more likely yield efficient, different ways to make energy (or use less energy), instead of propping up inefficient methods that cannot survive in the market place even after decades of subsidies.

Electricity is ultimately a cheaper energy source, with fewer emissions, than petroleum. One of the best ways to reduce the consumption of imported oil would be to encourage greater use of electric powered vehicles, but not through subsidies; instead, if we were to de-politicize the topic of electric generation, we can return our focus to developing ways to produce economical and clean electricity to use in electric cars.

It is clear that the world needs energy, but also that energy sources are ultimately limited. At some point decades or centuries from now, the global need for energy will result in all sources being utilized. The idea that we should keep coal in the ground has favor today with some; but when other sources of energy are exhausted or are inadequate, few people will want to live with reduced levels of energy—and then coal will be looked at in a new light. Would it not be better to continue using coal as an energy source, both for existing coal plants and for new ones with the technology of the Kemper/Ratcliff plant in which we are partnering? That, to me, is the best energy idea in thirty-three years.

## Conversion of MPC MB Delivery Points to SME Generation Goes Smoothly

Meeting the requirement to provide a safe, reliable, economical power supply never ends—in fact, the process continually evolves. South Mississippi Electric is always seeking better ways to balance building new generation and pursuing economical opportunities for purchasing power in an ever-changing market.

For decades, the majority of Member load in the Mississippi Power Company (MPC) service area has been served by all-requirements contracts from MPC. Thirteen newer delivery points located in the Pearl River Valley EPA, Coast EPA and Singing River EPA service territories, however, were being served through a Market Based (MB) power purchase agreement. In 2008, South Mississippi Electric determined that it would be advantageous and economical to assume generation responsibility for those thirteen substations.

“When the MB rates began to increase back in the early 2000s, we evaluated the option to take over these loads then,” said Nathan Brown, chief operating officer. “At that time, there was definitely an economic benefit; however, the decision was made to continue service under the MB rates. When the rates were up for renegotiation in 2007, our studies indicated that we could reduce overall costs to our Members by issuing a termination notice for the delivery points.”

“We believe we can control costs more effectively by deciding what generation resources to use to meet the load, either with our own resources or in combination with purchased power. This allows us to better control our own destiny from a cost standpoint, but the Members will see no effect on their operations,” said Steve McElhane, director of operations and planning.

Once the termination notice was issued to MPC for the thirteen MB delivery points, provisions under the MB rate specified that service under the rates would end four years later. After a one-year negotiation period, SME elected to proceed with the termination of the contracts, which allowed SME three years to determine how to actually serve the load as well as to add the operational capability to monitor and meter demand at the delivery points.

With the changeover scheduled to take effect on April 1, 2011, activities involving planning and construction ramped up in 2010. Work to upgrade the microwave communications network and metering equipment that was required to provide real-time telemetering data for the affected delivery points was completed by year-end. That project added nine new microwave towers or monopoles, equipment and buildings to accommodate communication paths in the MPC transmission area. (see map)

Additional needs included working to incorporate information associated with the new load into the control center computer and displays, as well as adding the information into existing operations programs for planning, reporting and accounting purposes.

“Having the communications in place for three months prior to the go-live date permitted thorough testing of all the components and training for the system operators,” said Tommy Clark, director of control and computer systems. “We needed the systems in place early so all facets of the control and monitoring between SMEPA and Southern Balancing Authorities could be thoroughly tested.”



System Operators Gary DeFatta (left) and David Baggett monitor operations in the control center

“From an operations standpoint, the primary challenge is determining how to integrate the load on the thirteen substations into our existing systems,” said Gary Hutson, system operations manager. “Adding new load also means that we must increase our reserve resources, which are required for reliability. We began tracking the load back in November to determine how it behaves from day to day, which has allowed us to add those characteristics into our predictive software.”

To help meet the new demand, SME negotiated a separate power purchase agreement with MPC that permits power purchases to be scheduled to follow the changing hourly requirements at the thirteen substations.

“The contract allows us to maximize the economics of numerous resources in addition to our own generating units,” McElhane noted. “Using the Southern Company transmission system, we have access to generation from Mississippi Power, other Southern Company operating companies or network customers, or purchased power from the grid, whatever is least expensive. It is an excellent agreement and we have spent much of the past year negotiating details related to scheduling and delivery responsibilities with Southern Company’s transmission and energy management people.”

When the time came at midnight on April 1 to “flip the switch,” the efforts of many employees were fully realized. “It all went very smoothly,” McElhane

said. “The main change was the indication of an increase of 43 megawatts on the control center systems. The operators had scheduled for our generation to increase by the anticipated amount for that hour, and everything fell into place.

“This will be something a bit different for our system operators, as they will have to pay more attention to how our overall load is being met—in the Mississippi Power transmission area, the Entergy area, and on the SMEPA system. They now have to be aware of the transmission issues required to serve this new portion of the load so as not to incur unnecessary charges. This is a more sophisticated and strategic way to meet our generation responsibilities, and I can see us using similar options in the future as we continue to grow.”

“The entire project has been a very long, complex and thorough process,” Hutson noted. “It has involved numerous employees and work groups, as we have worked through issues involving operations, control systems, metering, telecommunications and other Member considerations. Now that we have reached a successful conclusion, I believe that the hard work and creativity that everyone involved brought to the project has resulted in greater value for our Members.”

### Converted MB Delivery Points

- |                           |           |
|---------------------------|-----------|
| 1 - Oloh-Dixie Pipeline   | PRVEPA    |
| 2 - Hattiesburg Ind. Park | PRVEPA    |
| 3 - South Lucedale        | SREPA     |
| 4 - Martin Bluff          | SREPA     |
| 5 - Aleco Fire Tower      | SREPA     |
| 6 - Hamill Farm           | SREPA     |
| 7 - Monaco Lake           | SREPA     |
| 8 - North Lucedale        | SREPA     |
| 9 - Joe Batt Road         | SREPA     |
| 10 - Necaise              | Coast EPA |
| 11 - Cedar Lake Road      | Coast EPA |
| 12 - Lizana               | Coast EPA |
| 13 - Highway 15           | Coast EPA |

### Tower Additions for the Coastal Microwave Backbone

- |   |
|---|
| 14 - Necaise tower (existing)                   |
| 15 - Spence substation                          |
| 16 - Coast EPA HQ – Kiln                        |
| 17 - Watts substation                           |
| 18 - Coast EPA Gulfport Office                  |
| 19 - Joe Batt Road substation                   |
| 20 - Hamill Farm Road substation                |
| 21 - Monaco Lake substation                     |
| 22 - Cumbest Bluff substation                   |
| 23 - Agricola switching station                 |
| 24 - Southeast Greene (existing)                |
| 25 - Singing River EPA HQ – Lucedale (existing) |



## KEEPING THE FLEET ROLLING

The roar of a bucket truck's engine at two o'clock in the morning sets the tone for the line crew's preparations to repair an unexpected outage and restore power to homes across the state. The roar and full tank of gas are also gentle reminders that South Mississippi Electric's vehicle maintenance crew worked the evening before to refuel, clean and inspect the truck, preparing it for a call-out or the next work day.

"It means a lot to show up and be able to depend upon our trucks and equipment being ready to roll," said Bill Regan, line foreman. "It allows us to get to work and do our job without having to spend time making sure everything is fueled and in working order."

Arthur Ricketson, vehicle maintenance foreman, and his crew of six employees maintain SME's fleet of vehicles, often staying late to maintain or repair trucks or equipment upon being returned to the Field Operations Center (FOC) so that the fleet equipment is available for the next day's work.

The vehicle maintenance group has a combined 79 years of experience working on SME's fleet, which includes 92 gas-powered vehicles, 14 large trucks (one and one-half ton up to class eight) and 67 pieces of equipment (including trailers, loaders, forklifts, track equipment, digger derricks, cranes, and all-terrain vehicles).



Laborer Brian Carter checks the oil in a fleet vehicle

While each member focuses on one particular area of responsibility within the group, they each have the skills to cross over and assist in other areas. Jody Dickinson, vehicle serviceman I, works alongside Greg Burge, hydraulic mechanic, to maintain the large trucks and equipment. Wayne Owens, vehicle serviceman I, performs general mechanical maintenance on all fleet vehicles. Maintenance laborers Ronnie Bradley and Brian Carter fuel and clean all fleet vehicles at Headquarters (Bradley) and the FOC (Carter). Part-time laborer Matthew Godshaw assists in scheduling preventive maintenance and tracking vehicle mileage and meters.

Maintaining the fleet according to the department's high standards begins with each refueling and cleaning. "Every time Ronnie or Brian refuels or cleans a car, they check the oil and antifreeze levels and inspect the tires," said Ricketson. "This helps us make sure the vehicle is up to par and allows the driver to do their work."

In addition, each fleet car is subjected to a more thorough inspection checklist every 180 days or 7,500 miles. The checklist includes brakes,

tires, oil, air filters, seals, and wheel bearings. Routine maintenance is performed on a vehicle's belts and hoses every five years. "On occasion we may have to go service a car on the road that has had a problem, but our goal is to perform the preventive maintenance necessary to keep that from happening," said Ricketson.

A similar inspection schedule applies to the large trucks and equipment used by crews out in the field; however, the work performed by these on a regular basis requires a different method of tracking each vehicle's usage and additional testing and certification to maintain reliability and safety.

"Service schedules for specific types of vehicles and equipment are based on hours of usage when tracking mileage does not accurately tell us how much it actually worked that day," said Ricketson. "For example, the distance a bucket truck is driven to and from a job represents the miles driven, but fails to include the time between travel when the bucket is in operation. Tracking the total hours it was in operation is important to keeping the general maintenance on schedule." Hour meters aide the staff in tracking scheduled maintenance, which is performed every 200 hours of operation or 180 days.

"Every 180 days, we conduct a thorough bumper-to-bumper inspection on the large trucks and equipment," said Burge. "This includes checking the torque on all of the

bolts and the turntables, looking for any little problem that could lead to a big problem."

The equipment is also inspected after every large job for signs of damage. "None of our lines is constructed on four-lane highways, so the terrain that the equipment is subjected to really takes a toll," said Burge. "Most of the problems we find are the result of general wear and tear, such as blown hydraulic hoses, leaking cylinders, and electrical problems."

The large trucks and equipment that work in close proximity to power lines—such as digger derricks, cranes, and bucket trucks—must also have an annual inspection through the manufacturer (Altec Industries or Terex Corporation). An additional certification, dielectric testing, performed through Diversified Inspections, tests for insulation and grounding properties to ensure safe operation.

Work such as the annual inspections and certifications cannot be completed by the SME group and is outsourced. Warranty work on new vehicles and

Greg Burge, hydraulic mechanic, completes a job on Bigfoot.

work requiring resources not available through SME, such as windshield replacement or alignment, are sent to businesses specializing in that service.

Now, however, the shop is equipped with more resources and space than ever before. The vehicle maintenance group relocated to the Field Operations Center in 2008. The new shop boasts a 4,000-square-foot vehicle maintenance shop and a separate 6,000-square-foot truck and equipment shop, in addition to two offices, inventory supply rooms and outside wash bays. Several features were added at the new facility, including a service pit and overhead crane.

"The move to the FOC has allowed us to greatly increase our work space and add new equipment, which helps us better maintain the fleet," said Ricketson. "It was important for our shop to grow to keep up with the growth of the fleet."

"Our new shop is one of the finest in the South," said Burge. "It gives us so much space to do our job and is so well-equipped."

Since Ricketson started in the department 35 years ago, the department and its responsibilities have grown along with the rest of the Association. "When I started in 1976, one shop foreman and I were responsible for 27 vehicles," said Ricketson. "SMEPA grew rapidly during that time, and within a year the fleet expanded to 45 vehicles; and we hired our first laborer to keep everything fueled and clean. Over the years, the biggest change has been the increase in fleet size and the bigger variety of equipment. As more cars and equipment have been added, we have had to grow to keep up."

Regan agrees. "The work these guys do keeps us working," he said. "We have more equipment than ever before that they have to maintain, and the quality of their work is obvious. It makes a big difference to have the equipment we need in the field and have it well maintained."



"I think the biggest benefit to SMEPA for having an in-house vehicle maintenance group is that we see every vehicle when it leaves here and when it returns," said Ricketson. "We do everything we can to spot what can go wrong and keep it from happening. This allows the operator to depend on that vehicle or equipment and do their job without worrying and without having to take the time to service or fuel it themselves. They know their vehicle is always ready to go, even for call-outs during the night."

"There are many unsung heroes within the organization that quietly work behind the scene to support equipment and fellow employees," said Brad Wolfe, chief of transmission and support services. "Arthur and his group fall into this category. They work around everyone's schedule to minimize downtime and to keep the fleet ready. I appreciate all that they do to serve this organization."



Jody Dickinson, vehicle serviceman I, tests the brakes after performing maintenance on Bigfoot, a track digger derrick

## SECOND INTERCONNECTION WITH ENTERGY MISSISSIPPI TO BE COMPLETED SOON



Conductor on Line 178 is ready for termination at the new Silver Creek GT addition (bay at left)

South Mississippi Electric occupies a unique geographic location, with a service territory surrounded by four major utilities: Southern Company, Entergy, TVA, and PowerSouth. As the Association has evolved over the years, new generation resources have been developed to help meet the needs of Member systems but, overall, SME still purchases more than half of the wholesale power required to serve the combined systems' cumulative load.

For South Mississippi Electric and most other utilities, purchasing bulk power from resources throughout the region and importing it through transmission grid interconnections is essential to providing reliable and economical wholesale power. SME's system planning group is continually focused on managing this process by projecting many years into the future how the system will grow and recommending system improvements necessary to maintain adequate power import and power export capabilities.

"We perform long-range transmission planning studies based on the annual power requirements study load projections and recommend system improvements based on our findings," said Alan Wilson, system planning manager. "We also conduct annual studies to look for operational concerns associated with power transfer requirements."

The recommended system improvements are compiled in five-year transmission construction work plans (TCWP). The most recent TCWP, developed in 2008, recommended several major projects which included increasing the transfer capability with Southern Company at the Purvis Bulk intertie and with PowerSouth at Waynesboro; adding an additional interconnection with Entergy Mississippi (EMI) at the Silver Creek Generating Station (Silver Creek GT); and increasing the generating capacity at Plant Moselle.

"The Magee substation is currently SMEPA's only interconnection with Entergy Mississippi," Wilson noted. "It is critical to serving load within the Entergy system as well as throughout our on-system. When the 2009 tornado struck very close to the facility, we were reminded how damaging it would be to our operations to lose that interconnection."

Currently, the three 83-megawatt combustion-turbines at Silver Creek GT feed directly into Entergy's system. This facility is located approximately 12 miles west of SME's 161kV Line 168A, which runs north and south from Mississippi Hub to Columbia and passes close to Southern Pine EPA's Lone Star substation. The new interconnection with EMI will be created by constructing a 161kV line from Silver Creek GT and tapping into Line 168A with the new Southwest Lone Star 161kV switching station.

"Not only will the project provide a second intertie with Entergy, but it will help with transmission voltage support in and around the Silver Creek area of the system, which includes the Georgia Pacific paper mill at Monticello and Southern Pine EPA's Monticello delivery point," said Wilson.

The planned path of the new 161kV line also allows SME to construct a new 161/69kV substation at Prentiss and takes the place of a 69kV transmission line from Prentiss to Lone Star recommended in the 2002 Long Range Transmission Planning Study.

Overall, the new Silver Creek interconnection is made up of five separate projects: the Silver Creek GT 161kV addition, the Prentiss 161/69kV substation, the Southwest Lone Star 161kV switching station, the 161kV Line 178 (Silver Creek to Prentiss), and the 161kV Line 179 (Prentiss to SW Lone Star).

Designing two relatively short lines presented new challenges for the transmission design group, as Line 179 from Prentiss to the new Southwest Lone Star station was designed to carry two circuits. Building Line 179 with double circuit capacity will help with future reliability by permitting a 69kV line to be added later when needed.

"In order to accommodate the added weight and wind load of a second circuit on Line 179, we had to use much larger structures," said Jeremy McAndrew, design engineer. "The average concrete pole for Line 179 is about 95 feet tall and weighs approximately 30,000 pounds, with one pole being 115 feet tall and weighing roughly 40,000 pounds. For Line 179, spans between structures were limited to around 550 feet where possible. This is in contrast to Line 178 where the average pole is 80 feet tall, weighs 20,000 pounds and spans were more in the mid-700 foot range.

"We also had a geotechnical investigation conducted by a firm from Mobile, Alabama (GET-Geotechnical Engineering Testing, Inc). Prior to the geotechnical investigation, preliminary line design and site visits helped us to pinpoint areas where soil conditions could possibly be of concern, whether this be because of a higher loaded structure or from low lying wet terrain. From this, fifteen soil borings were conducted along the six-mile line route in order to determine strengths of the soils.

"We know the concrete poles can be designed to withstand the higher loading that comes with the extra circuit, but once the pole is socketed in the ground, the question is whether or not the soil will be able to resist that force and keep the pole from leaning or falling over. Standard embedment of our poles is usually ten percent of the pole's height plus two feet. Through analysis of the soil strengths along the line route, it was determined that a majority of the structure locations' soils could not resist these forces without being embedded deeper in the ground. For Line 179, the embedment depth was changed to ten percent of the pole height plus six and a half feet."

Matt Tillman, substation design engineer, began his work designing the Silver Creek 161kV addition and the Southwest Lone Star switching station early last year. "Anytime you add on to an existing station you see what

foresight for future expansion was included in the design," said Tillman. "The possibility of connecting the Silver Creek generators back to our system was considered even before this station was constructed in 2002.

"The existing Silver Creek GT 115kV switchyard was laid out on a 161kV basis in order to accommodate future 161kV expansion of this station. Constructing a new 161kV breaker and half bay at Silver Creek provides the termination point for Line 178 and the termination point for an additional generator. Ultimately SMEPA owns enough property at Silver Creek to construct three additional generators, one additional 115kV line and two additional 161kV lines, if we ever need to do so."

The Silver Creek GT 161kV addition also utilizes two 150 MVA transformers that were relocated from Magee during the Magee 161/115kV transformer replacement. When that project was completed in 2007, it more than doubled the existing transfer capability between SME and EMI.

Site development construction for the 161kV addition was completed last September. Subsurface construction, which included foundations, conduit, grounding, rock surfacing and fencing, was completed in February. Overhead construction, which includes erecting steel, installing bus work, breakers, switches and transformers, was completed in April. The final aspects of bringing the new addition online includes commissioning of the breakers, transformers, RTUs and relay equipment, which will be completed by SME and contract personnel with a projected station in-service date of May 31.

*Continued on next page*

*Line crews set a pole that will connect Line 168A to the new Southwest Lone Star switching station*



Design work for the Lone Star switching station began in January 2010, as did final site acquisition. As with all new substations or switching stations, approval for the project had to be received from RUS (for financing purposes), and all environmental permits were secured. Once the design was complete and approved by RUS, materials were ordered and contracts for construction were awarded. Construction of the switching station began in July 2010 and continued through early spring. SME's line crews completed the cut in from Line 168A in April.

Lines 178 and 179 were substantially completed by contractors before the end of 2010, and termination of the line at Silver Creek GT is scheduled for the last week of May.

Site development for the new Prentiss 161/69kV substation has been completed and subsurface construction is scheduled to begin this summer. "The site development process for Prentiss was more challenging than

usual," Tillman said. "There was a five-acre disturbed area limit; the station drive, which is 567 feet long, drops 38 feet in elevation from the entrance at Highway 13; two major underground utilities needed to be relocated; and the site location required coordination with Southern Pine EPA to accommodate their new substation."

"The wide range of planning, design, procurement and construction associated with this project reflects the complexity of what is required for our system to grow and serve the needs of our Members," said Terry Lee, chief engineering officer. "We currently have seven Member delivery points in the pipeline, three other major transmission improvement projects with completion dates this year, as well as the microwave network expansion, which continues into 2013—probably as many major projects as we have ever had underway at any one time since the late 1960s. It takes a lot of hard work from our entire staff to complete these projects successfully, and I am very proud of their efforts and teamwork."

## ENSURING THE BEST RESULT POSSIBLE

Clearly, a remarkable amount of work goes into planning and designing the new facilities that are added to South Mississippi Electric's growing system. All those efforts would surely be compromised, however, if the facilities are not built to match SME's design and specifications. As blueprints turn into real facilities, Construction Supervisor Bob McCaskill is responsible for making sure that the work is done correctly.

McCaskill has been building electric lines and substations for more than forty years. He has worked on transmission projects across the United States for a variety of companies, and he helped build many of SME's earliest facilities. For the past ten years, he has been inspecting construction for all of the Association's substations and switching stations.

"I really cannot remember all the jobs I have been a part of, but there have been a lot," he said. "It has been fun and it is always a challenge. When we complete a station, I feel like the final result reflects on me, so I put a lot of effort in making sure every job is done right."

McCaskill oversees all phases of construction required to build a station, including site work, foundation and underground construction, and the installation of above-ground steel and equipment. He normally has several projects going on at once and visits each site regularly, working closely with a wide variety of contractors to ensure their work is progressing correctly.

"The contractors need to know what our expectations are and how we want each job done," he said. "Most of the contractors have worked with us before, and they do a good job. Our engineers also do a fine job of developing plans and designing the stations."



A contractor crew from H & H Construction, Inc. makes final adjustments to the 161kV switches at the Moselle switchyard

McCaskill is keen on details and is quick to stay on top of any problems. "I am a perfectionist," he noted. "It is my job to find solutions, if necessary. These facilities are built to stay in service 30 to 40 years, so we need to have the best work possible. That is what SMEPA requires and it is what I demand."

Substation Design Engineer Matt Tillman knows how good McCaskill is at his job, and how busy Bob stays. "This year was extremely challenging because at one point eight major substation projects were underway at the same time," he said. "Each project can involve up to three separate construction contracts. Bob's responsibilities were also complicated by the location of the projects, as they were on opposite sides of the system."

"I cannot remember a busier time, but I still enjoy what I do," McCaskill said. "We all work together because these facilities are needed to meet new load, and they must be completed on time."

# Fire Extinguishers Can Save a Life

Flames can engulf a home or business in as little as five minutes, leaving little or no time for emergency responders to arrive on site; however, a fire in the beginning stages can often be extinguished or contained in less than three minutes.

Prior knowledge of the location and use of a fire extinguisher can help individuals maintain control of the situation and minimize panic, and can prevent irreparable damage or injury. "Fire extinguisher use should first be taught at home," said David Mozingo, plant operator I at Plant Morrow, who has also been a firefighter with Sunrise Volunteer Fire Department for 23 years. (David, a level I firefighter, has served as both Chief and Assistant Chief at Sunrise.)

"Practice fire safety with your spouse and children," Mozingo said. "I have responded to many fire calls that have been handled with fire extinguishers before the fire department even arrived on the scene."

Be prepared to react to a fire by practicing fire extinguisher use:

- Pick up and hold an extinguisher to get an idea of its weight and feel.
- Read the operating instructions and warnings found on the fire extinguisher label.
- Practice releasing the discharge hose or horn and aiming it at the base of an imagined fire.
- Do not pull the pin or squeeze the lever. This will break the extinguisher seal and cause it to lose pressure.

Once a fire ignites, assess the situation before attempting to fight it. "When you discover a fire, do not panic," said Mozingo. "Count to five and get your thoughts in order. Size up the situation and decide the best way to handle it."

- Activate the building alarm system or notify the fire department by dialing 911.
- Evacuate the structure. Assemble everyone at a safe meeting point and make sure everyone is accounted for.
- Determine if the fire is small and contained.
- Ensure a clear exit.
- Locate the nearest fire extinguisher (never cross the path of a fire to get a fire extinguisher).
- Stay low to avoid smoke.

Never attempt to fight a fire if there is any doubt about safety or control of the situation. If all of the above conditions are not met, evacuate the area immediately and call for help. "If you decide to attack a fire, call a supervisor, another employee, or someone else and let them know your intentions," said Mozingo. "You do not want to be out there alone."

"When you retrieve the fire extinguisher, watch for hazards that may cause you to slip or fall. When you are attacking the fire, be aware of other problems

you might encounter, such as electrical or inhalation hazards, oil lines overheating and rupturing, or material falling from above."

When it is time to use the extinguisher on a fire, just remember **PASS!**

- **Pull** the pin.
- **Aim** the nozzle or hose at the base of the fire from the recommended safe distance.
- **Squeeze** the operating lever to discharge the fire extinguishing agent.
- Start at the recommended distance and **sweep** the nozzle or hose from side to side until the fire is out. Move forward or around the fire area as the fire diminishes. Watch the area in case of re-ignition.

Do not walk on an area that has recently been extinguished in case the fire reignites or the extinguisher runs out. Most extinguishers have only 10 seconds of extinguishing power, or less if the extinguisher was not properly maintained or was partially discharged.

Fire departments will often conduct demonstrations on proper extinguisher use. A fire extinguisher must also be inspected on a regular basis to ensure that it is not blocked by obstacles that might limit access in an emergency; the pressure is at the recommended level; all parts are operable and not damaged or restricted; and the extinguisher is clean, free of debris, signs of damage, or abuse.

"Also, it is a good idea to carry a fire extinguisher in your vehicle; not only could you save your own vehicle but you could help someone that may be trapped in a burning vehicle," said Mozingo. "With all this said, the most important fire extinguisher advice is safety, safety, safety!"

**CLASS A** fires involve ordinary combustible materials such as paper, lumber, cardboard, and plastics. The numerical rating on Class A extinguishers indicates the amount of water it holds and the amount of fire it can extinguish.

**CLASS B** fires involve flammable or combustible liquids such as gasoline, kerosene, grease, and oil. The numerical rating for Class B extinguishers indicates the approximate number of square feet of fire it is capable of extinguishing.

**CLASS C** fires involve energized electrical equipment, such as appliances, wiring, circuit breakers, outlets, switches, panel boxes, and power tools. Never use water to extinguish a Class C fire because of the risk of electrical shock. The C classification means the extinguishing agent is non-conductive. There is no numerical rating for Class C extinguishers.

**CLASS D** fire extinguishers are often found in chemical laboratories. These fires involve combustible metals, such as magnesium, titanium, potassium and sodium. These materials burn at high temperatures and react violently with water, air, and/or other chemicals. Class D extinguishers have neither a numerical rating nor a multi-purpose rating. They are designed strictly for Class D fires only.



## 30-Year Plant Employees Honored

Receptions honoring plant employees with 30 or more years of service were held on April 18 at the J.T. Dudley, Sr. Generation Complex and on April 19 the R.D. Morrow, Sr. Generating Station. Honorees included nine current and former employees at Plant Moselle and 25 current and former employees at Plant Morrow.

During the tributes, the honorees were introduced by Chief Operating Officer Nathan Brown and a Wall of Honor was unveiled at each location, permanently displaying portraits of each individual in recognition of their service to the Association.

"These individuals have witnessed and been part of many changes through the years," said Marcus Ware, assistant general manager. "Our most important asset is the people who keep the wheels spinning and the power flowing. SMEPA's greatest strength has always been our skilled, experienced workforce."

"Each honoree has contributed greatly to the long-term success of South Mississippi Electric," said Jim Compton, general manager/CEO. "It is important to recognize those contributions and express appreciation for the service of these employees."

Thirty-year employees at the Field Operations Center and Headquarters were recognized in 2008 and 2010, respectively, for their contributions and years of service. The Wall of Honor will be expanded annually at the respective locations as more employees reach the 30-year employment plateau.



Robert Davis (left) at the Morrow reception with his wife and son



Moselle honorees (from left) Jack Thompson, Ray Nelson, Keith Rittenhouse and Kenny Clinton



Morrow honorees (from left) Maynard Graves, Richard King and Tommy Mills

### ACTIVE EMPLOYEES WITH 30+ YEARS OF SERVICE

Jerry Pierce	43	FOC
Charles Evans	38	Headquarters
Gary DeFatta	38	Headquarters
Kenny Clinton	38	Plant Moselle
Roger Smith	38	Headquarters
Marcus Ware	37	Headquarters
Vic Miller	37	Headquarters
Eddie Hill	37	Headquarters
Randy Hutto	36	FOC
Mitch Westberry	36	FOC
Tommy Clark	35	Headquarters
Arthur Ricketson	35	FOC
Matt Ready	35	FOC
Charles Stuart	34	Plant Morrow
Trevor Cameron	34	Plant Morrow
Norman Broom	34	Plant Morrow
Joe Fortenberry	34	Plant Morrow
Richard King	34	Plant Morrow
Larry Willis	34	Plant Morrow
Wayne Keen	34	Plant Morrow
Louis Brown	34	Plant Morrow
William Murphy	33	FOC
Bobby Morrow	33	Plant Morrow
Terry Lee	33	Headquarters
Charles Gray	33	Plant Morrow
David Kelly	33	Plant Morrow
Tommy Mills	33	Plant Morrow
Steve Everett	33	Headquarters
Sammy Odom	33	Plant Moselle
Jeff Ladner	32	FOC
Jerry Nelson	32	Plant Morrow
William Eakes	32	Plant Moselle
Tommy Hutson	32	Headquarters
Doug Hartfield	32	Plant Morrow
Boby Spiers	32	FOC
Robin Harris	32	FOC
Ed Clinton	32	Plant Morrow
Steve Robertson	32	Plant Morrow
Al Saucier	32	Plant Morrow
Scott Burris	31	Headquarters
Keith Rittenhouse	31	Plant Moselle
Clifford Pickering	31	Plant Morrow
Randy Lee	31	Plant Moselle
Robert Davis	30	Plant Morrow
Darren Butler	30	Headquarters
Ted Bower	30	Headquarters
James Tatum	30	Plant Morrow

### RETIREES AND FORMER EMPLOYEES

Larry Faris	38	FOC
Michael Pearce	37	FOC
Pete Taylor	36	FOC
Jack Thompson	33	Plant Moselle
Bill Small	33	Plant Morrow
Ray Nelson	32	Plant Moselle
Dan Kay	32	Headquarters
Don Gavin	31	Plant Morrow
Sam Short	31	Plant Morrow
Nettie Jones	31	Headquarters
David Baylis	31	Plant Moselle
Maynard Graves	30	Plant Morrow
Robert Hornsby	30	Plant Morrow
Jerry Glosson	30	FOC
Annette Smeltzer	30	Headquarters
Harold Lowery	30	Plant Moselle

## Many Changes Seen Over 30 Years

April 11, 1977 was one of those days when a decision was made that would have a continuing impact on the future of South Mississippi Electric. With Plant Morrow under construction and moving toward commercial operation status within a year, twenty employees were hired that day as junior operators. Today, five of those 20 still faithfully serve the Association in various positions: Norman Broom, operations supervisor; Trevor Cameron, coal and utility supervisor; and shift supervisors Joe Fortenberry, Richard King, and Larry Willis.

These five, plus 42 others throughout the Association, have been employed for 30 or more years, combining for 1,560 years of service to SME.



Broom credits the increasing knowledge and experience of his fellow employees with much of the change that has occurred during his 34-year tenure. "When we all first came here, we had very little knowledge and experience," said Broom. "We did not always know the best way to avoid or minimize

the problems we encountered. Now, years of experience have helped us determine ways to prevent problems or deal with them the best way possible. For instance, in the early days, when it rained, no one really knew how to operate the units with wet coal. Now we know how to handle wet coal properly.

"I believe our biggest asset at Plant Morrow is the knowledge and experience of employees in all of the departments. The majority of our current staff



came onboard looking for a career, not just a job. This way of thinking has made everyone look more toward the success and the future of the Association, rather than just a means of earning a paycheck. Everyone takes pride in their work and everything they do."

Technology has also played a powerful role in changing operations over the last three decades. "In 1996, we implemented a new Digital Control System (DCS), replacing the former analog operation system that was installed when the plant was constructed," said Broom. "DCS is a faster, more efficient way of accomplishing the same tasks we performed before, although we do occasionally revert back to manual operations if necessary. Now, however, there is an automatic mode for almost any situation."



"When I first started, we employed only a handful of engineers," said Jeff Ladner, substation maintenance supervisor, who joined SME as an electronics trainee in February 1979. "They designed the construction projects by hand, made the prints, gave the prints directly to us, and we returned them directly back to them. Now, everything is done over the computer. That first computer we had seemed like it was the size of the whole Field Operations Center. The capabilities were amazing to us, but it was only a matter of time before we were hauling it off to make way for newer, smaller computers."



When Robin Harris, engineering assistant, began work in May 1979 as a drafter, plan and profile sheets, substation drawings and wiring diagrams were drawn by hand on paper with a pen and ink, taking hours to complete. Over the years, the department revolutionized the process with computers, plotters,

and AutoCAD, enabling drawings to be completed in a fraction of the time and stored for future reference. "It was a big deal when we got our first plotter," said Harris. "We were amazed at how it worked and the speed at which it worked. Computers also allowed us to move from manually putting diagrams on the map board, one piece at a time with symbols and lines, to completing or changing the whole diagram from our desktop. Now, we have been drawing on computers for 25 years or more."



Drafters Tammy Haas (left) and Robin Harris in the early 1990s



Boby Spiers, meter and substation inspection supervisor, remembers the days when metering crews read every meter by hand on the first of every month, manually changing out large cassette tapes that recorded load data. "Rain, sleet, or snow, holidays or not, we read the meters on the first of the month," said Spiers. "In the early 1990s, first generation electronic meters were installed,

Continued on next page

which were connected to cell phones or land lines, enabling the meters to be read remotely by computer. We were happy—no more meter runs on the first.



Boby Spiers programs a "new" electronic meter package in 1992

"We are now in the process of installing second generation electronic meters with Smart Grid Technology throughout the entire system. We are still using cell phones at most locations, but plan to have most all converted to microwave communications in the near future."



Kenny Clinton, operations supervisor at Plant Moselle, began as a laborer at the plant in 1973 before quickly moving into the operations department. At the time, Moselle operated three steam units, producing a total of 177 MW, in addition to the units at Paulding and Benndale.

Clinton agrees with the notion that technology has fueled many changes at the Association since the early days. "We are now in the information age," said Clinton. "We depend on emails for communication, and we stay in constant and immediate contact through phones and computers. In the past decade we have also advanced the way we do things operationally, converting from an old bench board switch system to the new Digital Control System."

Plant Moselle converted to DCS in 2002, requiring the control room operators to learn new methods of performing the tasks they had been doing for 32 years. "Where we used to flip switches or start pumps manually, we now click through a series of functions on a computer screen to do the same job," said Clinton. "The mechanisms automatically set by DCS also provide greater control of the system."



"Along with the change in technology are new regulations for all of our work," said Ladner. "We used to have the freedom to be on a jobsite, see something that needed to be done, call in and get permission to do the work. Now, there are numerous steps and safeguards required to complete the same process."

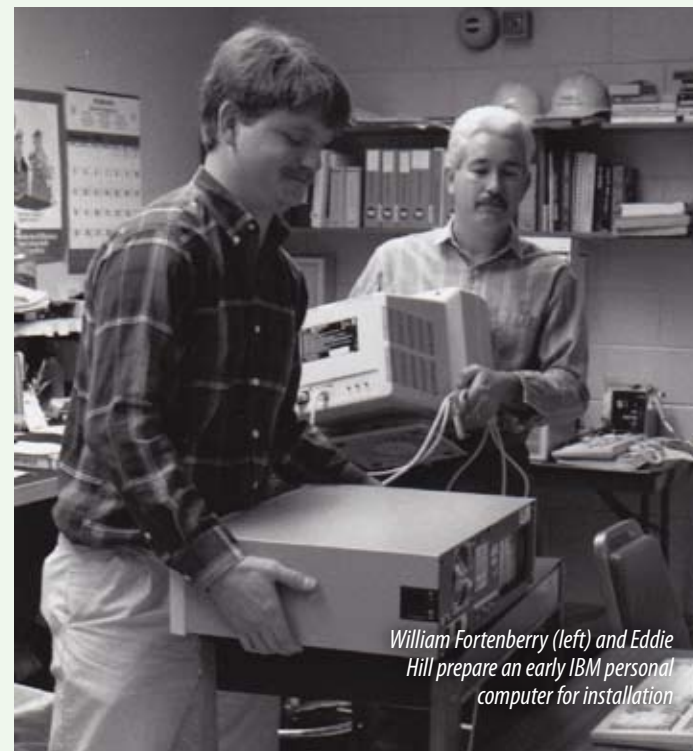
"I also remember being a young kid—six months on the job—when Hurricane Frederick was heading to the Gulf Coast. I had worked the previous summer as a co-op student from Pearl River Junior College, but still did not know much. Vernon Bowling sent me to man the Benndale combustion unit the day before Frederick hit and, over the radio, walked me through the steps to start it up. That was the longest night of my life, but it is probably not something that would ever be done today by someone so young and inexperienced."

Spiers' first experience on SME's newly formed meter crew occurred when the Association made an agreement with Mississippi Power and Light (now Entergy Mississippi) to start serving Members in the off-system area. "We learned on the run," said Spiers. "When we took over the meters at the substations that Entergy previously served, everything had to be rewired and new equipment installed. We had an old load box with a meter standard (a device to test meters), some books, and were told to figure it out. Those were some wild times—it was hard enough just trying to find a substation in the middle of a cotton field 150 miles from home, much less wiring equipment we were not familiar with."



Eddie Hill, electronics supervisor, has witnessed the same kind of growth within his division since he began as an electronics technician in 1974. "When I came on board, all of the metering, substation, electronics, and communications work was being performed by less than ten employees," said Hill. "They were primarily

Air Force retirees with a lot of electronics knowledge, which they would ultimately pass along. Within a few years, four of us current employees (Ladner, Boby Spiers, Randy Hutto, and Hill) were hired to expand the group and separate into our different divisions. Now, due to the expansion of the system and growth in our work load, I have a total of eleven guys in just the communications division."



William Fortenberry (left) and Eddie Hill prepare an early IBM personal computer for installation



Randy Lee, mechanic I at Plant Moselle, began work as a helper at Plant Morrow in 1980. Since transferring to Moselle in 1993, the Association has added Silver Creek, Sylvaarena, and Moselle's Units 4 and 5, in addition to the plant's current repower project. "SMEPA is a tremendously bigger organization than it was when I started," said Lee. "We have added new generation and a lot more employees. Equipment and inventory that used to be stored here is now housed at the Field Operations Center. The good thing is that even though everything has grown, it seems like we have more and more opportunities to see and get to know the employees from other locations."

Another tremendous growth noted by Lee and Broom is the enhanced safety program at SME. "We have always been safety-oriented at SMEPA," said Broom. "Now, we just have more of an emphasis on safety than ever before. Every employee, no matter what the position, has bought into our safety program, making it their first priority."

"The safety program has come a long way in making safety a top priority for everyone," said Lee. "Our employees have always done what they need to do to get the job done; now, safety is first and foremost in that process."

One thing that has remained the same for these employees over the years is the reason for their service and dedication to the Association. "SMEPA to me was a promise of a secure job that would allow me to stay at home with my family," said Broom. "It also provided me with an opportunity for advancement and good benefits. Now that I am nearing retirement, I am realizing the true value of our retirement benefits. I also appreciate the friends I have made here and the good people I have the opportunity to work with. This is one of the best jobs in the area. Overall, the best way to describe why I have chosen to spend my career here is security."

"I never imagined that I would be here for 32 years," said Harris. "It has been a blessing, with all of the benefits and being able to work in a job I like. The people I work with, the benefits and being treated like family are why I have stayed here for all of these years."

"Thirty years have gone by fast," said Lee. "I guess I got so busy with my family and making a living that the time flew by. When I first started, I remember seeing the retirement date 2019 and thinking how far off that was. Now, that date is just right down the road."

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