



March 2017 Newsletter

TVA Names New Bosses for Sequoyah Nuclear Plant

The Tennessee Valley Authority on March 1st announced organizational changes for its Sequoyah Nuclear Plant, naming Anthony L. "Tony" Williams as site vice president and Matt Rasmussen as plant manager.

Williams will join TVA on March 13th after working at Entergy Nuclear where he was general manager of plant operations for Palisades Nuclear Plant. He has worked in the power utility industry for 26 years at Entergy and Public Service Electric & Gas plants. Williams earned his MBA from Rutgers University and a Bachelor of Science degree in electrical engineering from Lehigh University. He was a licensed senior reactor operator at both Salem Nuclear Generating Station and Indian Point Energy Center.

"Tony's outstanding nuclear operations background will infuse external leadership talent into the organization to help move the station toward sustained performance improvement," said Mike Balduzzi, who TVA named last year as its chief nuclear officer. "He brings a strong track record of building high-performing organizations to the senior leadership role at Sequoyah."

Williams succeeds Greg Boerschig, who has been acting as interim site vice president for Sequoyah and will return to TVA's corporate nuclear organization as vice president of quality assurance later this month.

Rasmussen has been Sequoyah's maintenance director since 2015 and will assume the plant manager role next week. He began his TVA career at Browns Ferry in 2002 following graduation from Auburn University with a degree in mechanical engineering. At Browns Ferry, he progressed through increasing leadership roles including unit supervisor, operations superintendent and work management director. He earned his senior reactor operator license and shift technical advisor qualification in 2006.

"He is a respected Sequoyah team member with a reputation for focusing on the appropriate actions to ensure that Sequoyah's nuclear units perform safely and reliably," Balduzzi said of Rasmussen.

Preston Pratt, Sequoyah's current plant manager, will join the corporate nuclear organization this month and will focus on improving organizational effectiveness.

The Sequoyah nuclear plant near Soddy-Daisy is one of three TVA operating nuclear plants. The twin-reactor Westinghouse pressurized reactors at Sequoyah began power generation in 1981. Combined, the two reactors are capable of producing more than 2,400 megawatts of power, or enough power to supply four cities the size of Chattanooga.



\$250 Million LG Plant to Bring Clarksville At Least 600 Jobs

Tennessee's expanding business partnership with South Korea was further cemented with the formal announcement that LG Electronics is taking over a 310-acre site near Clarksville in Montgomery County and plans to open a \$250 million manufacturing facility. The deal is expected to bring 600 new jobs in its first phase.

"Tennessee has been known for generations as a place that makes things," Governor Bill Haslam said in announcing the deal at the state Capitol, joining LG executives who said the state can now add advanced appliance and washer technologies to its list of goods produced here.

LG is a vast South Korea-based company that will manufacture appliances in Clarksville, principally washing machines in an 830,000-square-foot phase one facility. The company has four divisions: Home Entertainment, Mobile Communications, Home Appliance & Air Solution, and Vehicle Components. It is headquartered in Yeouido-dong, Seoul, South Korea.

Since June of 2016, Clarksville had been competing with another undisclosed finalist city for the LG project, said Mike Evans, executive director of the Clarksville-Montgomery County Industrial Development Board, and Cal Wray, executive director of the community's Economic Development Council.

The site near Clarksville is part of the 1,167 acres that make up Corporate Business Park North. The tract is south of Tylertown Road and east of Jim Johnson Road.

State officials put Montgomery County in the mix for the LG plant because of the available property, formerly occupied by Hemlock Semiconductor, whose production never materialized even after the facility was fully built out and ready to start.

Under agreements with the state and Montgomery County, LG says it will receive various grants, tax incentives and "other types of programmatic support for construction, infrastructure improvements, job training and veterans' recruitment." The project also features Tennessee Valley Authority incentives. LG says the decision to establish U.S. washing machine manufacturing operations was part of a long-term planning and evaluation process. The company says it studied eight states and based its decision on location, business environment, economic policies, business incentives and supply chain advantages.



Tupelo Area Named A Top Micropolitians Area Again For 2016

The Tupelo area has again been named one of the *most active micropolitans* in the country. The area was ranked fifth, down one notch from a year ago. It's the eighth time since 2005 Tupelo has finished in the top 10.

Tupelo has finished in the top 25 micropolitan rankings 13 times. The U.S. Census Bureau lists 575 micropolitans, an urban area with a population of at least 10,000 but less than 50,000 in the country.

The ranking was compiled by Atlanta-based Site Selection magazine, which focuses on corporate real estate and economic development fields. Tupelo and Lee County were recognized for its showing in 2016, when it announced 10 new and expanding industry projects during the year, including General Atomics, AIA Countertops, Southern Motion and more. The projects created more than \$61 million in new capital investment and at least 869 new jobs.

Since 2005, the Community Development Foundation and Lee County have created nearly \$750 million in capital investment and nearly 6,000 jobs. "The success of 2016 is yet another step in Tupelo/Lee County's long-term strategy for economic growth. Through our partnerships with the Mississippi Development Authority, Tennessee Valley Authority and other economic development officials – we will continue to maintain our momentum in 2017," said Lee County Board of Supervisors President Phil Morgan. "Our focus on the further development of our industrial parks, including the construction of Lee County's third, 100,000-square-foot shell building, will remain a top priority."

Barry Smith, the chairman of CDF, said, "Community Development Foundation's program of work in partnership with our private and public leaders is exemplary. This recognition is not by chance, but is only the result of the hard work by our community, working together towards greater prosperity for all. These partnerships are critical as we work together to create more and better jobs in 2017."

ATVG REPORT:

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ATVG is a 501(c)(4), not-for-profit, public interest organization. ATVG advocates for the interests of county and city/town governments residing within the seven-state TVA region and their partners in the public and private sectors.

For details about ATVG's mission and program of work, visit us on line at: www.atvg.org



Official Performing Duties of Secretary Of the Army For Civil Works Tours Chickamauga Lock

To gain a better perspective of the nation's aging infrastructure on America's waterways the senior official performing duties of secretary of the Army for Civil Works toured Chickamauga Lock to realize the challenges of keeping a deteriorated lock open while racing against time to construct a replacement lock.

U.S. Army Corps of Engineers Nashville District officials briefed Douglas W. Lamont about the condition of the current lock and its replacement project, and then he walked along the lock walls where the Corps and Tennessee Valley Authority have installed more than 340 post-tensioned anchors and monitoring instrumentation that include over 2,900 data points, which are used to monitor concrete growth expansion and its erosive effects.

The lock opened to navigation in 1939. With a single chamber measuring 60-by-360 feet, the lock has experienced structural problems resulting from alkali aggregate reaction between the alkali in the cement and the rock aggregate, which results in a physical expansion of concrete structures.

Mr. Lamont called the visit "valuable" because although he has more than 40 years of experience as a civil engineer with the Corps of Engineers in the Jacksonville District and in Washington, D.C., before this visit he had not been to a lock and dam. "It's given me is an opportunity to look at the condition of the lock and to understand the alkali aggregate reaction," Mr. Lamont said. "All the post tensioning anchoring work that you've done to keep this thing up to speed and continuing to go while you're trying to move forward with a new replacement lock – that's pretty admirable stuff that you're doing in this district."

Lt. Col. Stephen Murphy, Nashville District commander, informed Lamont that the Great Lakes and Ohio River Division has 12,000 miles of navigable waterways, 192 lock sites with 238 chambers, and that the division's infrastructure amounts to 25 percent of the Corps of Engineers' civil works budget.

Lt. Col. Murphy also noted that the Nashville District has 10 dams, nine with hydropower, four locks in the Cumberland River Basin, and the average age of these projects is 63 years. He stressed that recreation is another important component. More than 31 million visitors recreate at the district's projects annually, the district is the most visited in the Corps, has the highest campground utilization and largest marina concessionaire program, he said.

The district also partners with the Tennessee Valley Authority, who owns the projects in the Tennessee River Basin, but where the Nashville District maintains and operates the locks on the Tennessee River and Clinch River. Both organizations work together during drought and during flood events to manage the water for the best impact on the lower Ohio River and Mississippi River, said Mike Wilson, Nashville District deputy for Programs and Project Management. "Regionally the aging infrastructure is a big piece of flood risk management," Lt. Col. Murphy said. "The Nashville District alone annually prevents about \$15 million in flood damage."

During the walking tour, Cory Richardson, Chickamauga Lock facility supervisor; Chickamauga Lock Replacement Project Manager Adam Walker, and Tommy Long, resident engineer, briefed the secretary on the deteriorating existing lock and the status of excavation work for the new 110-foot by 600-foot replacement lock.

According to Mr. Walker the growing concrete at the lock creates many problems. "There are cracks and chunks of concrete that have broken loose from the lock walls creating potential hazards for people and vessels transiting the lock. The lock has actually grown to be four inches taller and 12 inches longer than it was when it originally opened due to the



concrete growth phenomenon,” Mr. Walker said.

Chickamauga Lock has been closed at different times for unscheduled repairs, but Corps and TVA engineers and maintenance crews have kept the lock open even as the concrete continues to expand and hinder operations. The long-term solution is a replacement lock that is currently under construction and Corps officials are working against time to keep the waterway open to commercial and recreational interests. There are three navigation locks and 318 navigable stream miles upstream of Chickamauga Lock that would be isolated from the Inland Waterways System if the lock is closed. This would present difficulties in transporting materials to upstream industries, including TVA nuclear power plants and the U.S. Department of Energy facilities at Oak Ridge.

The current lock chamber is also incompatible with today’s towing equipment resulting in longer than normal tow-processing times. When the new 110-by-600-foot lock is completed, it is expected to speed up the process of locking through, and would process up to nine jumbo barges in one lockage. Mr. Richardson also shared with Mr. Lamont that 3,085 pleasure craft locked through Chickamauga Lock (the most of any lock on the Tennessee River) and 906,678 tons of commodities moved through in 2016.

ORNL, Chattanooga EPB Test Role of Sensors in Grid Innovation

With a fiber-optic network that provides Chattanooga residents and businesses with exceptional high-speed communications, the city’s Electric Power Board (EPB) provides the US Department of Energy’s (DOE) Oak Ridge National Laboratory (ORNL) with an ideal testbed for smart grid research.

With support provided by DOE’s Office of Electricity Delivery and Energy Reliability (OE), an effort was launched in 2014 to advance the state of the power grid in Tennessee. The intent was to have Oak Ridge staff scientists, working closely with EPB, use their expertise to test new technologies, examine the use of microgrids, develop new analytics that will allow EPB to unlock the power of its smart grid data to improve operations and use high-performance computing to perform modeling and simulations.

Through their partnership, ORNL and EPB are learning how to best apply sensors, controls, secure communications, and other technologies allowing a power grid to function more autonomously and reliably as it grows and becomes more complex. This effort leverages the advancements that EPB has made in strengthening its network by rolling out smart grid technologies to make its distribution system more robust and improve operations, thanks in part to \$111.5 million in stimulus funds awarded by DOE’s Office of Electricity Delivery and Energy Reliability. That investment has allowed EPB to provide continued reliable electric service and respond more effectively to such events. EPB has estimated that the increased reliability is worth roughly \$50 million a year to Chattanooga-area businesses and residents, and that the number of customer minutes lost to power outages has decreased by 50 percent.

For instance, the deployment and integration of distributed energy resources such as renewable power sources like wind and solar brings new operational and technological challenges to utilities nationwide on many fronts, including continuing to provide secure and reliable service to their customers.

The consumption of renewable energy from sources other than hydropower is estimated to have grown by 11.8 percent in 2016 and will rise another 11.1 percent in 2017, according to DOE. Utilities need to ensure the grid is protected and the power provided is consistent even when the sun doesn’t shine or the wind doesn’t blow.



Now, through DOE's Grid Modernization Laboratory Consortium (GMLC), ORNL is leading eight other national laboratories to work on EPB's next project: collecting real-time sensor data so the system immediately sees fluctuations and can balance the electrical load.

"The testing we're doing now with these sensors will help us determine which ones make the most sense to implement on a larger scale," said Jim Glass, EPB's manager of smart-grid development.



Association of Tennessee Valley Governments
Spring Meeting April 19 & 20, 2017
Kentucky Dam Village – Marshall County - 270-362-4271

April 19, 2017 (Central Time Zone)

ATVG Program

- 11:30 a.m. Lunch at the State Park
- 1:00 p.m. Welcome and Introductions - Gary Reasons, ATVG President/
Crockett County Mayor and Marshall County Judge Kevin Neal
- 1:30 p.m. TVA Update - Bert Robinson, TVA
- 2:00 p.m. TVA Public Recreation - James Adams, TVA
- 2:30 p.m. The Solar Eclipse and Tourism Value – Amy Potts, KY Dept. of Tourism
- 3:00 p.m. Break
- 3:15 p.m. Update on Coal Industry/Fossil Fuels - Kentucky Coal Association
- 4:00 p.m. Adjourn General Meeting
- 4:15 p.m. ATVG Board Meeting - Gary Reasons and Mike Arms
- 5:00 to 6:30 p.m. Hospitality/Reception - Resort Park Cottage Hosted by KACo
- 7:00 p.m. Dinner at Patti's (Transportation Provided)

April 20, 2017

- 7:30 a.m. Breakfast at State Park
- 8:15 a.m. Transportation Departure for tour of KY Dam Lock and the Marshall
Combustion Turbine Plant (Calvert City) Return to State Park by noon

Please help us make necessary arrangements by letting us know if you will be attending. Send the enclosed registration form by email to: registration@atvg.org or by U.S. mail to: ATVG, P.O. Box 3578, Clarksville, TN 37043.



Association of Tennessee Valley Governments Meeting Registration Form

Registration Fee: \$40.00 for members and affiliates; \$95.00 for non-members

Name: _____

E-Mail: _____

Spouse's Name: _____

Registration Fee for spouse is included/No additional charge

Company/Organization: _____

Full Address: _____

Make checks payable to: Association of Tennessee Valley Governments- P.O. Box 3578 – Clarksville, TN 37043

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Energy Efficiency Program Equates to Savings for Mississippi Entities

In early February, officials from the Tennessee Valley Authority presented Food Giant Manager Dwayne Jackson with a whopping \$72,300 rebate check for energy efficient improvements made during the store's renovation last year. "We've had a sizeable decrease in our utility bill. This system is supposed to save upwards of 30 percent, and it keeps our product fresher longer," Jackson said.

Through taking advantage of TVA's Energy Right program, an auditor surveyed the store's equipment and gave suggestions as to how to save on its utility bill. The store added the newest refrigeration equipment on the market, built to high sustainability and energy efficiency standards from Hillphoenix.

Food Giant's refrigeration system requires less refrigerant charge than other systems and uses several features to save energy such as smart valves, a seasonal split condenser and digital compressors.

Food Giant is the latest in a number of Aberdeen, Mississippi entities that have chosen to go green and ultimately enjoy cost-saving benefits.

Office Renovation and Addition Give New Life to a Section of Huntsville, Alabama

In late January, Turner Construction completed the three-phase Freedom Center, a new office complex that is part of the revitalization of South Huntsville, Alabama. The project, designed by Matheny Goldmon Architecture + Interiors and estimated at between \$10 million and \$12 million, is a multi-tenant facility where its anchor, Torch Technologies, a defense contractor, now operates its corporate headquarters.

Torch's sister company, Freedom Real Estate and Capital, cleared the path for the steel-framed Freedom Center last year by acquiring two office buildings as well as approximately 12 surrounding acres of land. The Freedom Center is positioning itself to be a hub for business close to Alabama's Redstone Arsenal.

Torch received a \$2.1 million incentive package to stay in Huntsville and redevelop these properties from the city, the state of Alabama, and the Tennessee Valley Authority, according to the Alabama Media Group's website. It also received tax abatements and grants, and \$250,000 from the state as reimbursement for capital expenditures, AIDT-provided workforce training, and the capital income tax credit.



Kentucky Electric Co-ops Support Nuclear Power

As a national group, electric co-ops see nuclear power as a valuable part of the mix of fuels that make our electricity. An official membership resolution of the National Rural Electric Cooperative Association (NRECA) calls for “legislative and regulatory initiatives to support the continuation and expansion of nuclear power.”

Dale Bradshaw describes why electric co-ops see nuclear power as a good way to generate electricity. Bradshaw is the CEO of Electrivation LLC, a firm that consults on power generation and delivery with groups that include NRECA. “Nuclear power is safe and emits no carbon dioxide,” he says, noting the industry’s safety and security systems and the lack of greenhouse gas.

Bradshaw also sees advantages of nuclear power over the increasingly popular renewable energies of wind and solar, since solar doesn’t produce energy at night and wind doesn’t work in calm weather. “We need nuclear for reliability; it runs around the clock,” he says, adding, “Existing nuclear reactors are basically cost-competitive—it’s a low-cost resource.”

ATVG 2017 Meeting Schedule

Mark your calendars now to join us for our next meetings:

- **April 19 & 20, 2017 – Kentucky Dam State Park, Gilbertsville, Kentucky**
 - **July 19 & 20, 2017 – The Inn at Ole Miss, Oxford, Mississippi**
 - **October 17, 18 & 19, 2017 – Clarion Inn and Suites, Gatlinburg, Tennessee**
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