

Fall 2014



# CNTAware

## Nonprofit of the Week: Education is the goal

Clint Wolfe has been the executive director for the Citizens for Nuclear Technology Awareness since 2008.

The Citizens for Nuclear Technology Awareness, also known as CNTA, got its start in 1991.

“At the time, a group of people from the Savannah River Site and the community felt like there needed to be more factual information made available to the public because issues surrounding the Site were being sensationalized,” said Clint Wolfe, CNTA’s executive director.

Today, many of the organization’s efforts are designed to educate laymen about the real benefits and comparative risks of the nuclear industry in a variety of areas, including production of electricity, medicine, food irradiation, production of weapons and waste management.

“There is an awful lot made of risk, with regard to radiation, that is just nonsense; but it can be scary,” said Wolfe, who worked at the Savannah

River Site from 1988 to 2005. “The point, for us, isn’t to pooh-pooh people’s concerns. It’s to provide some instruction on what is safe and what is not using people who really know what they are talking about.”

Wolfe believes that one of CNTA’s most effective programs is a workshop for schoolteachers called “Bringing Nuclear Into the Classroom.”

Developed by CNTA and the local section of the American Nuclear Society (ANS-Savannah River), the workshop is presented several times each year.

Since 1979, when the first workshop was offered, more than 300 teachers have participated in the program.

“It’s heavily weighted toward middle-school and high-school teachers,” Wolfe said.

During the workshop, teachers participate in hands-on activities while learning about atomic and nuclear fundamentals, power generation, nuclear

technology uses and other topics.

“The people who are giving the teachers the information are not just people who learned about it from a book, they’ve lived it,” Wolfe said. “Some people look at it and say that what we’re really doing is providing propaganda. But what we’re trying to do is provide facts about nuclear energy and the Site so that people can tell what propaganda is.”

CNTA, which has approximately 400 members, also has monthly Up and Atom Breakfasts that feature speakers with nuclear expertise. In addition, the organization brings in a nationally known speaker for its annual Edward Teller Lecture.

“The one thing we need to get better at is communicating using social media,” Wolfe said. “Social media is really great for a whole bunch of things, but it’s very difficult to talk about nuclear technology on social media. We know there is a role somewhere, and we’ve got to find a way to make good use of it.”



# Savannah River Site Interns Learn about Energy Resources and Opportunities

Citizens for Nuclear Technology Awareness (CNTA) recently sponsored mini-workshops entitled “Energy Resources and Opportunities” for the summer interns at the Savannah River Site. The Savannah River Remediation interns (24) participated in a 2-hour session on June 19th presented by CNTA members Mel Buckner and Ken Stephens. The presentation was based on material used in the CNTA Teacher’s Workshop “Bringing Nuclear into the Classroom” which has been presented to nearly 300 K-12 teachers in the local region since 2009. The topics included a discussion by Stephens of electric power generation and the many energy sources that are used to heat and cool our homes and to power businesses and industry along with projections for the future. Stephens also discussed risk in relation to everyday activities and hazards, and regulatory standards.

Buckner’s presentation on Nuclear Technology Applications and Opportunities: Fulfilling Marie Curie’s Dream outlined the many areas that nuclear technology beneficially impacts, with particular emphasis on electricity. According to Buckner, nuclear power is the key to our energy future because it is sustainable, safe, reliable and environmentally friendly. There are 28,074 nuclear-related jobs in South Carolina, and it is projected that at least 10,000 more nuclear workers will be needed in this region alone to support the growth of the nuclear industry.

The Savannah River Nuclear Solutions interns (24) along with 3 teachers on summer appointments from Allendale participated in a 2 ½ hour mini-workshop on July 22nd.

Brad Swanson, also a CNTA member, presented the power generation discussion and used a hands-on activity to illustrate the operation of the electrical grid and the types of plants that provide our electricity. Stephens discussed real vs. perceived risk and used an exercise for ranking risk of various activities such as driving an automobile, smoking, flying in an airplane, working as a coal miner, living near a nuclear plant, etc. to illustrate that perception is not an accurate measure of risk.

The SRR and SRNS interns and the Allendale teachers were very impressed with the information that was presented and expressed positive support for nuclear technology applications.



SRR interns participate in electrical generation exercise.



Mel Buckner discusses nuclear technology applications with SRR interns.

# Aiken Technical College Receives \$2.45M Grant to Expand National Wireless Tower Training Program

Aiken Technical College received a \$2.45 million grant from the Trade Adjustment Assistance Community College and Career Training (TAACCCT) competitive grant program for the expansion of the College's nationally unique Tower Installation training program.

The funding was announced Monday by Vice President Joe Biden, Secretary of Labor Thomas E. Perez and Secretary of Education Arne Duncan as part of \$450 million in grants awarded nationwide to train Americans and connect them with businesses looking for skilled workers.

ATC's Tower Installation program, which launched in November 2013 as the first training program of its kind in the southeastern United States, prepares citizens for entry-level jobs in the growing 4G wireless communication industry.

"Aiken Technical College is grateful to receive this \$2.45 million grant and proud to be able to expand the College's nationally recognized tower installation program to train technicians in this high-demand field," said ATC Vice President for Education and Training Dr. Gemma Frock.

"Industry and workforce growth, coupled with the importance of safety and adequate training in the wireless tower installation industry, are central to ATC's commitment to serving this important need and simultaneously bringing opportunities to the workforce of our region."

The TAACCCT grant program is co-administered by the Department of Labor and Department of Education. The grant is part of an effort to provide community colleges and other institutions with funds to partner with employers to expand and improve their ability to offer training programs for in-demand careers like information technology, health care, energy and advanced manufacturing.

ATC's existing tower installation program produces entry-level authorized climbers through an intensive 5-week, 16-credit hour program. The grant will allow the College to expand the Tower Installation I certificate program to include multiple stackable credentials that can lead to an Associate of Applied Science degree.

After completion of the existing Tower Installation I certificate on campus, these industry-valued credentials will be offered in a convenient, online format, making it possible for students to complete the remainder of their Associate's degree from anywhere in the country.

Three CSRA-based companies that operate regionally and nationally — Advanced Technology Group, Georgia-Carolina Tower Company and Midlands Communications — will support the program in an advisory capacity. These employers have committed to serve on the program's advisory groups, to assist with the development of curricular materials, and eventually, to help employ the program's graduates.

ATC was the only institution in South Carolina to receive funding from the \$450 million job-driven training grant awards.

The next session of ATC's Tower Installation I certificate program will begin on October 13.

For more information about ATC's Tower Installation program, visit [www.atc.edu](http://www.atc.edu) or call (803) 508-7263.



# Augusta Technical College wins STEM Education Award from Technology Association of Georgia

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The Technology Association of Georgia (TAG) and the TAG Education Collaborative (TAG-Ed) today announced that Augusta Technical College has been named as the Postsecondary Outreach category winner for the 2014 Georgia STEM Education Awards.

The Georgia STEM Education Awards recognizes schools, programs, and companies for outstanding efforts and achievements in supporting and promoting STEM (Science, Technology, Engineering and Math) education in Georgia.

“Augusta Technical College has been collaborating with multiple nuclear partners and local high and middle schools to develop and implement an energy workforce pipeline in the Central Savannah River Area. An increased focus has been placed on producing a well-trained nuclear workforce in STEM

related careers. The purpose of this multifaceted collaboration is to broadly impact middle and high school students to select careers with a STEM focus within the nuclear industry. Through this partnership, students are acquiring an associate degree, a nationally recognized nuclear industry certificate, and a rewarding career in a STEM field.

Augusta Tech is pleased to be recognized as a leader in the Postsecondary Outreach category by the Technology Association of Georgia. This recognition reaffirms that we are on the right path to educate the next generation of engineering technology professionals in the CSRA,” stated Bob Collins, Department Head for the Nuclear Engineering Technology Program.

Winners competed in 8 different categories in the statewide event. “It was truly a challenge to choose from among the many applicants from around Georgia,” said Tino Mantella, president & CEO of TAG. “We applaud this year’s

winners for standing out as leaders in Georgia’s educational community.”

Winners were announced during a special awards gala on September 26th, held at the Savannah International Trade and Convention Center. The event was sponsored in part by Promethean and Cisco Systems Inc.

“It is so gratifying to see STEM education gaining momentum throughout the state of Georgia,” said Michael Robertson, executive director of TAG-Ed. “In order for our students to be prepared for tomorrow’s careers, they must first acquire strong analytical and problem solving skills through rigorous coursework in school. The programs highlighted today are leading the way in this effort and sharing best practices that will prepare our students for the challenges ahead. “





# Transfer Lines Connecting SRS Liquid Waste Facilities To SWPF Are In Place, Ready for Operations

AIKEN, S.C. (September 25, 2014) – Savannah River Site (SRS) officials are announcing a key milestone in preparation for the startup of the Salt Waste Processing Facility (SWPF). While there are more steps to follow, the SWPF team installed more than 1,200 feet of new transfer lines that will eventually connect existing liquid waste facilities to the SWPF.

The SWPF will be the key liquid waste facility for processing approximately 90 percent of the some 38 million gallons of tank waste. The SWPF will separate the salt waste into a low-volume, high radioactivity fraction for vitrification in the Defense Waste Processing Facility and high-volume, decontaminated salt solution to the Saltstone Facility for disposal as low-level waste.

Installing the lines was significant, but completing the work safely also was important, according to Frank Sheppard, Vice President and Deputy Project Manager of Parsons, SWPF construction contractor for the Department of Energy (DOE) at SRS.

“Construction of the transfer lines began in 2013 and was finished recently, ahead

of schedule, executing approximately 12,000 work-hours with no recordable injuries,” Sheppard said. “The lines are currently scheduled to be ready to transfer waste following final tie-ins and testing of the SWPF, currently targeted for 2018.”

Savannah River Remediation (SRR), DOE and Parsons, have been closely interfacing on integration of SWPF with the liquid waste system, according to Keith Harp, SRR SWPF Integration Program Manager.

“The two contractors have been working hand-in-hand with DOE to ensure the success of this project,” Harp said. “These transfer lines will be vital to SWPF production. The work accomplished so far will integrate SWPF with current liquid waste facilities, such as the DWPF and the tanks farms.” The spirit of integration is recognized by DOE. “A key objective for us over the next five years is to fully integrate SWPF into the liquid waste system,” said Jim Folk, DOE-Savannah River Acting Assistant Manager for Waste Disposition Project. “Completion of this task is another example of the close partnering relationship that will be required between

DOE and its contractors in achieving this very important goal.”

SWPF will utilize technology currently being used in SRR’s Interim Salt Disposition Project Modular Caustic Side Solvent Extraction Unit (MCU). Lessons learned from MCU operations are shared during bi-monthly meetings of the SRS SWPF Integration Team, which includes representatives from SRR and Parsons.

“This is a significant step toward ensuring the final integration of SWPF into the liquid waste system at SRS that ultimately results in effective processing and disposition of salt waste leading to final tank closure,” DOE Federal Project Director for SWPF Pam Marks said. SRR is the Liquid Waste contractor at SRS, which is owned by DOE. SRR is a team of companies led by URS Corporation with partners Bechtel National, CH2M HILL and Babcock & Wilcox. Critical subcontractors for the contract are AREVA, EnergySolutions and URS Professional Solutions.

Savannah River Remediation (SRR) Salt Waste Processing Facility (SWPF) Integration Manager Keith Harp (front right) points to the spot where the Savannah River Site’s liquid waste facilities transfer lines will connect to lines from the SWPF, which stands in the background. Looking on are (from left) Frank Sheppard, Vice President and Deputy Project Manager of Parsons, the SWPF contractor; Mike Mayo, Department of Energy (DOE) Construction Oversight representative; Pam Marks, DOE SWPF Federal Project Director; Robert Leugemors, DOE SWPF Chief Engineer; David Quattlebaum, DOE SWPF Quality Assurance Manager; Chuck Swain, Parsons Vice President of Construction; Teresa Tomac, DOE SWPF Construction Manager; Stuart MacVean, SRR President and Project Manager; Jim Folk, DOE Acting Assistant Manager for Waste Disposition Project; Shayne Farrell, DOE SWPF Deputy Federal Project Director.



## Up & Atom Breakfast Speakers

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**Stuart MacVean**  
President & Project Manager  
Savannah River Remediation, LLC

**“Liquid Waste: An Update on SRR Progress” and a “Word from our Intern’s”**



**James Taylor**  
General Manager of the Global Management & Operations Services (GMOS) Group of URS Corporations' Federal Services Division

**“URS | A World Leader in Environmental Management”**



# Ruling on nuclear waste throws storage scenarios into dangerous doubt

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By Clint Wolfe, Ph.D.  
Guest Columnist – The Augusta Chronicle

The headlines that trumpet a cacophony of changing events both at home and abroad have left little room for in-depth analysis of a less spectacular, but perhaps just as important, issue.

In a Sept. 19 meeting that took only a few minutes, the Nuclear Regulatory Commission passed a ruling regarding continued used nuclear fuel storage. Without getting into all of the history, court challenges and past waste confidence policy issues, suffice it to say this ruling is a potential game-changer for how this country regards the role of nuclear energy in its future energy plans.

The essence of the issue is that the lack of a geological repository specifically identified for used nuclear fuel has caused the government to consider other alternatives. These include, but are not limited to, on-site storage of the fuel and consolidated interim storage.

A series of court challenges over time has seen the NRC stick to its so-called waste confidence rule. This rule has aspects that are pertinent to this discussion.

One is that if you don't have a place to put the used fuel, then you can't make any more. Anti-nuclear activists have pushed the viewpoint that no more nuclear power plants should be licensed until there is a permanent repository. The NRC has responded in the past that they are confident that a repository would be available before

it is needed, and merely kept changing the date when that would occur.

THIS APPROACH led to a challenge that the NRC was violating the National Environmental Protection Act by proposing a significant new federal project without having determined the environmental impact. This environmental impact could be looked at in every case to significantly slow each new license application.

The NRC's recent action closes out the waste confidence rule and introduces the continued storage rule. This rule was adopted at the end of August based on a two-year study to determine, generically, the environmental impact of different scenarios of storage. The first of these scenarios was on-site storage for the 60-year operating period of the nuclear power plant. The second of these also considered impacts from an additional 100-year period of storage, and then a third scenario where the fuel remained on-site indefinitely.

The study found no significant environmental impacts from any of the scenarios. This is a huge determination, because now when anti-nuclear forces attempt to slow a license application by demanding an environmental impact statement be performed on the matter of used fuel storage, the applicant simply can incorporate the ruling by reference, thus negating that approach as an effective delaying tactic.

A very important caveat should be noted. Existing institutional controls were assumed to be maintained throughout the duration of the particular scenario. This begs for an

analysis of the economics of maintaining institutional controls at multiple site locations, vs. consolidated storage and its attendant controls, vs. geologic storage. Such analyses are not likely to be defined in any way that will provide an irrefutable answer to the used fuel storage problem, since these kinds of analyses have been going on for 30 years with no definitive conclusions. The NRC's determination tips the playing field to a more favorable position for nuclear advocates in that the anti-nuclear forces have long had the benefit of arguing that we don't know what to do about nuclear waste, so therefore we should not use the technology. The action of the NRC, although not addressing all potential impacts, is effectively saying, "So what?" and "There are no significant environmental impacts from indefinite storage of used fuel." This means that, not only is used fuel storage safe, but any sense of urgency to resurrect Nevada's Yucca Mountain, or to find an alternative such as New Mexico's Waste Isolation Pilot Plant, is diminished.

Locally, it means that vitrified high-level waste at Savannah River Site may have to look for a permanent home somewhere other than in Yucca Mountain. So, a potential downside to this new rule is that it may help sustain the atmosphere for not dealing with the permanent storage issue. Imagine that!

## Membership Renewal

Membership renewals are now being accepted for 2015! If you're not sure of your renewal date, please contact

the CNTA office at (803) 649-3456 or [cnta@bellsouth.net](mailto:cnta@bellsouth.net). You can also pay your membership by phone.

We accept Discover, MasterCard and Visa. A \$1.00 service fee will be added to all credit card charges.

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