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Update from our Executive Director

Once again, CNTA had a very busy fall!

The Young Professionals Committee hosted an Oyster Roast and Low Country Boil on October 5, at the Palmetto Golf Club. The event raised funds to offset membership fees for young professionals to join CNTA and to support future "Tap into Nuclear" mentoring events and educational outreach. It was a fantastic event with friends, good food and live music. Don't miss it next year!

October was again full of STEM outreach activities. We started the month as a sponsor and exhibitor at the Science Enrichment Education Day (SEED) held at USC Aiken. The event attracted over 4000 students, parents and educators! A "prize wheel" was used to ask students questions and award candy for correct answers. Everyone was a winner and left with a bit of nuclear knowledge and a piece of candy. We also exhibited at the CSRA STEM Career Connections event in Augusta. Aspiring juniors and seniors are exposed to STEM occupations at this event. We provided information on all things nuclear at the event and challenged students to "work" in a glovebox with our latest demonstration tool. We also exhibited at a middle school STEM event in Allendale.

The week after nuclear science week, we conducted our "Nuclear Blitz" throughout Aiken County High School chemistry classes. Presentations were made to 49 classes in 4 schools reaching over 1000 students! Thanks to the more than 20 CNTA members and friends who supported the teach-ins.

Nuclear Science Week would not be complete without the annual Teller Lecture. Michael Shellenberger, a renowned pro-nuclear environmentalist, provided an entertaining and thought provoking lecture. Congratulations to all the award winners that were recognized. A special "thank you" goes to Allison for all her hard work in organizing the event.

During this season of thanks, we are especially thankful for our CNTA members and friends who volunteered and supported these many activities. It is the efforts of our members that make our organization successful.

Happy Holidays,
Jim

Update from our Board of Directors

As outgoing Board Chair and as I put pen to paper for this message, I reflect on how CNTA has evolved over the twenty-five years that I have been a part of the organization. While CNTA's Vision remains constant, the focus of the Mission has changed dramatically in order to continually meet the needs of the membership and the community in which those members work and live. This evolution is, of course, key to the continued success of the organization. It also brings to mind a key responsibility for the Board of Directors because they help set the organizational direction and oversee the alignment of CNTA's work. To do this effectively, one must have ownership, be willing to give time and apply collective knowledge and experience to provide guidance.

CNTA is an important resource for the community, especially with respect to its support for science education. CNTA is also an important community voice for regional industry on all nuclear matters. The CSRA needs us. I ask the members to continue their support and wish the incoming Board Chair and Board every success in 2020 and beyond. Together with your Executive Director, Jim Marra you have all that is needed to make a positive impact in many students' careers and the surrounding community.

Happy Holidays to everyone,
Susan Wood

Education Committee Updates

Fall is an incredibly busy time at CNTA for educational outreach.



Events Attended:

- AMP Recharge
- STEM Career Connections
- Ruth Patrick's SEED (Science Education Enrichment Day)
- Allendale-Fairfax Middle School STEM Day



2019 Nuclear Blitz

Over 1000 students across Aiken County received in class education on Nuclear Fundamentals & Radiation

In preparation for the 2020 Future City Competition we have visited with 8 teams to better inform them of the potential uses of nuclear technology in their cities.

CNTA Sponsors a special award each year for "Best use of Nuclear"



Many of CNTA's Educational Activities were on display at this year's Teller Lecture & Banquet. Guests had the opportunity to see how CNTA uses Geiger counters, the nuclear reactor simulator game, and our newest demonstration— the gloveboxes, to educate. Information on each of these activities are available at:

<https://cntaware.org/classroom-community-resources/>



To be able to accomplish these (and our other educational programs throughout the year) we need your help! Whether it be volunteering for a teach-in, event, or sponsoring a grant, essay, or the blitz—there is something everyone can do!

Launching the 2020 Educator Grant Program

CNTA's Educator Grants can be used to fund a project in any area of science or technology; however, proposals that promote an increased understanding of atomic and nuclear fundamentals, radiation and nuclear materials safety, and applications of nuclear technology will be given extra consideration.

CNTA developed the educator grants program as an alternative to its classroom and field trip experiences for teachers. "The grants program is an opportunity to support local teachers in their classrooms and give them the resources to develop projects or enhance their student's experience with science and technology," said Dr. Jim Marra, CNTA Executive Director.



Students pose with goggles provided as part of a grant in 2019 to an area High School.

Middle and High schools in the South Carolina counties of Aiken, Allendale, Bamberg, Barnwell, Edgefield, and Orangeburg; and in the Georgia counties of Columbia, Richmond, and Burke are invited to submit proposals. Teachers who are members of CNTA are also eligible to apply regardless of school location.

Proposal packages are available online at: <https://cntaware.org/educator-grants-program/> Applications can be completed by one teacher or a group of teachers. Proposals can be submitted for grants in any amount up to \$500.

Teachers are encouraged to work with their colleagues on a cooperative project. Proposals are encouraged to leverage and make use of existing resources, such as kits that are available at the Ruth Patrick Science Education Center.

The applications will be evaluated under criteria that includes identification and demonstration of learning objectives/ curriculum concepts that will be enhanced by this grant, as well as how students will be involved and how many will be impacted.



Application must be received by CNTA by close of business on December 31, 2019. Winners and non-winners will be notified before February 15, 2020.

CNTA partners with other organizations and companies to provide these grants. Sponsors include: American Nuclear Society- Savannah River, Huntington Ingalls Industries, Savannah River National Laboratory, & SRSCRO.

Launching the 2020 Essay Contest

The 2020 Citizens for Nuclear Technology Awareness Essay Contest is officially underway! This is the 14th year CNTA has provided an opportunity for students to qualify to earn \$1,000 toward their future education while also winning \$500 for their school for educational science activities. Over the course of this contest CNTA has awarded almost \$50,000 to area high school students. This year the 1,000-to-1,500-word essay submissions need to be on one of the following topics:

- **Discuss the difference between nuclear radiation and contamination and their impacts on society.**
- **Discuss how electricity generated from nuclear power versus fossil fuels can impact global warming.**
- **Discuss the use of nuclear technology in space exploration (past, present, and future).**

This essay contest is open to high school juniors and seniors in Aiken, Allendale, and Barnwell counties in South Carolina or Burke, Columbia, and Richmond counties in Georgia. The contest is also open to high school juniors and seniors of CNTA members, regardless of their county of enrollment.

Successful essays require students to integrate science, technology, social understanding and language arts. Researching a technical topic, relating the information to society, and effectively communicating the information in writing are great skills for any high school student to practice and demonstrate.

February 28, 2020, is the deadline to submit essays.

"The goal of the CNTA Essay Contest is to promote a better understanding of nuclear technology among high school students," said Jim Marra, CNTA Executive Director. "It also provides an incentive for the development of written communication skills that are vital to continued success in education and in the workforce."

The essay content flyer, rules, and entry form are available on CNTA's website at: <https://cntaware.org/high-school-essay-contest/>

Thank You to Our Volunteers!

As the year comes to a close we need to thank our countless volunteers. Without you CNTA would not exist.

We rely on volunteers for educational outreach, to host and organize the many CNTA events throughout the year, for the press releases and Nuclear Science Week Insert which get our message into the public sphere, and for the behind the scenes committee work. This is a volunteer led, volunteer driven organization.

- Over 100 members currently serve on CNTA committees.
- Each year we have over 100 volunteers help to put on CNTA events.
 - The Oyster Roast alone had over 20 young professionals donating their time to host an amazing new event.
- The Nuclear Blitz required the organization and support of dozens of individuals and organizations.
- The education outreach CNTA participates in each year requires hundreds of volunteer hours.

The CNTA office would also like to thank our retiring board members for their years of dedication to the organization. Susan Wood, Major Thompson, & Joe Ortaldo have always stepped up when CNTA needed something, and we all thank you for your years of service on CNTA's Board of Directors.

Join us at the Members Mixer (March 24, 2020) as we recognize & thank our members & volunteers!

CNTA Committee Descriptions

More information is available online at: <https://cntaware.org/committees/>

Communications Committee

The Communications Committee is responsible for ensuring accurate and timely information to the media, stakeholders, and the public and to reflect the goals and objectives of CNTA.

Education Committee

The goal of the Education Committee is to educate the public on the benefits, uses, and truths of nuclear technology. This is done through several initiatives: "Bringing Nuclear into the Classroom," Nuclear Blitz teach-ins, Lifelong Learning Academy teaching, and awarding the many scholarships and awards to students and teachers.

Young Professionals Committee

The purpose of the Young Professionals Committee is to recruit and engage young professional members by providing them with mentorship and professional development opportunities as well as raising money to make membership free for those under 40.

Membership Committee

The Membership Committee aims to create innovative initiatives to provide and promote value to members, retain current membership, and attract new members.

Golf Tournament Committee

This committee oversees the Annual Golf Tournament. The committee will meet starting in February 2020 to plan the 18th Annual Charity Golf Tournament (May 8, 2020)! If interested email Allison at CNTA@Bellsouth.net



Young Professionals Committee Updates

2019 Oyster Roast & Low Country Boil

The Young Professionals Committee hosted its first Oyster Roast & Low Country Boil on October 5, 2019 at Palmetto Golf Club.

Over 150 attendees enjoyed the live music, seafood, & raffles. The event raised over \$7,000 for CNTA's educational and young professional programs. Because of the success of this program, CNTA will continue to offer free membership to those under 40 for another year!

Event sponsors include Savannah River Remediation as the primary sponsor, Huntington Ingalls Industries, Southern Nuclear, SRS Community Reuse Organization, Jason Crane of Edward Jones, Savannah River Nuclear Solutions, Centerra, Emerson ASCO, Charlie & Lyddie Hansen, Honeywell, and Savannah River Ecology Lab.

The young professionals committee is going to meet in January to start planning 2020's event. If you want to be involved please let us know!

A few pictures are provided here. The website has an entire gallery of great pictures from the event!



Tap into Nuclear



GET TO POINT

Topic: Get to the Point!
(Fast & Effective Communication with Management)

Date: Thursday, December 12th
from 5:30-7:30 PM

Location: The SRS Museum, Aiken
RSVP: NO RSVP REQUIRED



Attendance is FREE
(Members and Non-Members welcome)

Attendees will be entered in a Raffle

The Professional Development subcommittee of the Young Professionals Committee held a Tap into Nuclear event on September 26th. About 25 young professionals attended this workshop on "Finances in the Real World" featuring Zeus Mancilla.

They are ending the year with a mixer/presentation at the SRS Heritage Museum on December 12th.

This subcommittee will also be meeting in early 2020 to schedule the topics/talks for the year. If you want to be involved in the planning, or have a topic idea please let us know!



Tap Into Nuclear

Welcomes You to Attend...

Topic: Finances for the Real World

Presented by: Jesús "Zeus" Mancilla

Date: Thursday, Sept 26th from 5:30-7:00 PM

Location: Aiken Brewing Company (Upstairs)
RSVP: NO RSVP REQUIRED

Attendance is FREE
(Members and Non-Members Welcome)

First Drink is on us!
Attendees Will be Entered in a Raffle




Up & Atom Updates

UP AND ATOM

CNTA
Citizens for Nuclear
Technology Awareness

Up & Atom Series Presents:

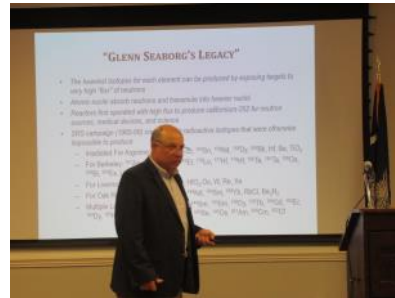
Richard Meehan - Director of the Office of Nuclear Materials Integration (NNSA)

"High-Precision Nuclear Forensics- The Case of the MK18A Target Assemblies"

September 25, 2019
7:30am
Newberry Hall, Aiken SC
Cost: \$20/person
\$160/Table of 8
RSVP REQUIRED! RSVP BY September 23

RSVP: cnta@bellsouth.net; or
RSVP & pay in advance at:
<https://cntaware.org/up-atom/>
Cash, Check, and Credit Cards accepted at event.
If you need an invoice email us.

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Aiken SC 29801
Phone: 803-649-5405
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Website: cntaware.org



UP AND ATOM

CNTA
Citizens for Nuclear
Technology Awareness

Up & Atom Series Presents:

"I didn't know DOE had an Office of Intelligence"

Speaker: Steven K. Black
Director, Office of Intelligence and Counterintelligence
U.S. Department of Energy

October 31, 2019
7:30am
Newberry Hall, Aiken SC
Cost: \$20/person
\$160/Table of 8
RSVP REQUIRED! RSVP BY
October 28th.

RSVP: cnta@bellsouth.net; or RSVP & pay in advance at:
<https://cntaware.org/up-atom/>
Cash, Check, and Credit Cards accepted at event
If you need an invoice email us.

Steven Black currently serves as the Director for the Department of Energy's Office of Intelligence and Counterintelligence. He served previously as Deputy Director for Intelligence Analysis and as Principal Deputy Director. Prior to returning to the intelligence community in January 2011, Mr. Black served as the Chief Operating Officer for the Department of Energy's non-proliferation programs from 2004 to 2010, during which time he was responsible for overseeing the business processes and operations of the Department's \$2 billion suite of nonproliferation programs. In June 2009, he received a Presidential Rank Award for sustained superior accomplishment in management.

Mr. Black has been a career member of the Senior Executive Service (SES) since his retirement from the DOE in early 2007. During his twenty-plus years in Air Force intelligence, during which he served in a wide range of staff and operational assignments around the world, including tours in Germany and Moscow, at US Space Command, in the Pentagon and in the White House.

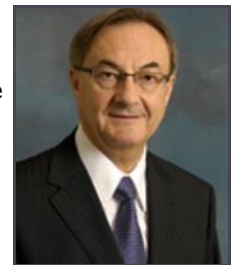
Mr. Black holds degrees in Political Science, National Security Affairs, and Russian from the University of the Naval Postgraduate School, and the Defense Language Institute. As a National Defense Science and Engineering Graduate Fellow, he completed postgraduate academic work in cyber warfare at the University of Pittsburgh and Johns Hopkins University.

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2019 Distinguished Scientist Award

Citizens for Nuclear Technology Awareness (CNTA) is pleased to announce that the winner of the 2019 Fred C. Davidson Distinguished Scientist Award is Dr. Dan Gabriel Cacuci.

This prestigious award was presented on October 16 at the Edward Teller Lecture in Aiken, South Carolina. CNTA sponsors the Teller Lecture as a public outreach, which is named for the famed nuclear pioneer who played a key role in advancing nuclear science during World War II.



Dr. Cacuci is the SmartState Endowed Chair Professor of Mechanical Engineering and the Director of the SmartState Center of Excellence in Nuclear Science and Energy at the University of South Carolina. He received his M.S. in Nuclear Engineering at Columbia University in 1973, his M.Phil. in Applied Physics and Nuclear Engineering at Columbia University in 1977, and his Ph.D. in Applied Physics, Mechanical and Nuclear Engineering from Columbia University in 1978. Dr. Cacuci's areas of scientific expertise include the analysis of large-scale physical/engineering systems; large-scale scientific computations; nuclear reactor physics, dynamics, and safety; and sensitivity analysis, data assimilation, and predictive uncertainty quantification for large-scale systems.

"Professor Cacuci is a leader in the development of nuclear technology, pioneering applications to develop experimentally validated predictive models of nuclear facilities, radiation detection, and other nuclear national security applications," wrote Dr. David LaGrafte of the National Nuclear Security Administration. "It is ground breaking and technical work such as Professor Cacuci's that continues to advance science while demonstrating the technical rigor we strive to achieve at our Nation's DOE and NNSA National Laboratories."

"I regard Professor Cacuci as a cornerstone in efforts to advance the state of nuclear science education as well as supporting the advancement of both the domestic nuclear power industry and the federal operations at the Savannah River Site," stated Dr. Hossein Haj-Hariri, Dean of the College of Engineering and Computing at USC.

The Distinguished Scientist Award is presented annually to recognize regional scientists and engineers who have made exceptional lifetime scientific achievements. The award is in honor of Dr. Fred C. Davison who was Chairman of CNTA's Board of Directors from 1994 until his death in 2004.

Davison was President of the University of Georgia for 19 years where he encouraged math and science education and managed the doubling of graduate enrollment. Davison was also President and Chief Executive Officer of the National Science Center Foundation, President of the Georgia-Carolina Boy Scouts Council, an elder at Reid Memorial Presbyterian Church, and an active Rotarian.

28th Annual Teller Lecture & Banquet

The 28th Annual Edward Teller lecture was held on October 16 at the USC Aiken Convocation Center. Over 200 people joined CNTA in recognizing this year's award and scholarship winners and got to hear a fantastic talk about "Nuclear Energy in Crisis" by this year's Teller Lecturer, Michael Shellenberger.

Shellenberger is the founder and president of Environmental Progress. He is a leading pro-nuclear environmentalist and expert on energy, security, and environmental issues. He co-founded the Breakthrough Institute and served as president from 2003 to 2015, served as an advisor to MIT's "Future of Nuclear Energy Task" force, and advises policymakers in the United States, Europe, and East Asia. Shellenberger is a regular contributor to *Forbes*, *The New York Times*, *The Wall Street Journal*, and *The Washington Post*. His TED talks on nuclear energy topics have been viewed over three million times.



Several award and scholarship winners were recognized at the banquet. These include the Fred C. Davidson Distinguished Scientist Award, the Nuclear Service Award, the Robert Maher Memorial Scholarship, the Aiken Technical College Scholarship, the CNTA High School Essay Contest scholarship winners, and Educator Grant recipients.

CNTA sponsors the annual Edward Teller Lecture and Banquet as a public outreach, which is named for the famed nuclear pioneer who played a key role in advancing nuclear science during World War II.



Dr. Edward Teller was a native of Hungary and came to the United States, as did many other Jewish scientists escaping the advancing armies of Nazi Germany. From the earliest days of the Manhattan Project, Dr. Teller was a central figure in the design and production of nuclear weapons and nuclear weapons materials. He considered the teaching of theoretical physics at several universities his primary occupation. Dr. Teller was the "father of the hydrogen bomb" and convinced President Truman of the need for this weapon given Soviet advances in that direction.



President Truman of the need for this weapon given Soviet advances in that direction. President George W. Bush presented him with the Presidential Medal of Freedom in July 2003. Dr. Edward Teller died at his California home in September 2003 at age 95.

Dr. Teller presented a public lecture in Augusta, GA in 1992 and allowed CNTA to name its annual lecture and banquet in his honor. The Annual Edward Teller Lecture and Banquet is CNTA's largest community outreach activity. The audience primarily consists of community leaders, elected officials, and nuclear professionals. Some high school and college students also attend courtesy of corporate and college donors.

This year's event can be viewed at: <https://cntaware.org/teller/>. A full picture gallery from the night is also available here.



CNTA donated an Honorarium on behalf of Michael Shellenberger to the Ruth Patrick Science Education Center at this year's Teller Lecture



Public Outreach



Nuclear Science Week CNTA Media Impacts:

- Reached over 30,000 households with the Nuclear Science Week Insert in the Aiken Standard
- Over 11,000 visitors to our CNTA Facebook page
- Articles picked up by The Aiken Standard, The Augusta Chronicle, DOE-EM Update and others
- Facebook Posts shared by the SRS, NNSA, etc.

WHY I AM CNTA

Each year CNTA asks its members why they continue to support the organization and its mission to be “The Voice of Truth on Nuclear Matters”. Below are a few of the responses we’ve received.

“Although we are no longer residents of the CSRA, I have continued my membership in the CNTA. I was fortunate enough to have been one of the Key Executives with SRNS who arrived in Aiken in 2008. I knew several of the folks involved with CNTA and was immediately impressed with the impact CNTA had not only locally but on a broader scale. I am particularly pleased to see CNTA engaging our younger folks. It is never too early to provide folks facts to allow them to make informed decisions. Keep up the good work.”

Tony Umek, Consultant, Longenecker & Associates



“CNTA members are great advocates of the Department of Energy’s Savannah River Site, working to improve public awareness and understanding of SRS and the benefits of the nuclear industry. There’s a great deal of exciting activity and new mission potential at SRS, and CNTA provides a needed, factual voice with objective information for the general public. CNTA sits at the intersection of the pride each of us feel about the site’s 70-year legacy, and how our work today continues to make the world safer.”

Stuart MacVean, President & CEO, Savannah River Nuclear Solutions

“CNTA has progressed and improved my network, keeps me aware and up to date on information related to the Nuclear industry and DOE, provides opportunities for me to serve the community, and I support all that CNTA stands for and supports. Their years of service to people of the nuclear industry, and the information and services provided to students and the community at large should truly be commended and supported. The level of professionalism and service that I have experienced with CNTA is first class on every level, and I am thankful to be a part of a great service organization like CNTA. That’s “WHY” I choose to support CNTA, and I encourage anyone who values education and community services to support it too.”

Byron N. Bush, Director, Business Development EGS



“I am a member of CNTA in order to have continued engagement with businesses and industries to best match Aiken Technical College’s curriculum offerings with the workforce needs of local employers. Business and industry feedback is key in assuring that our program offerings continue to evolve to meet the changing needs in the nuclear technology field.”

Dr. Forest Mahan, President of Aiken Technical College

“Unfortunately, many well-meaning people do not understand nuclear matters. CNTA provides objective, accurate information. CNTA works with teachers to give them the tools they need to prepare students for the future. I feel privileged to have worked with those fine teachers in Aiken County and beyond.”

Ken Stephens, PhD, Retired from SRS



CNTA Honors Kirk with Inaugural Nuclear Service Award

The Citizens for Nuclear Technology Awareness (CNTA) recently awarded the first-ever Nuclear Service Award to J. Scott Kirk for his significant lifetime achievements in the advancement of nuclear technology.

Kirk's work has spanned from licensing nuclear facilities that provide nuclear fuel for the United States Navy, to supporting nuclear non-proliferation programs established by the U.S. Department of Energy (DOE), to being a recognized expert in his roles at providing solutions to many of the complex waste management problems that have faced the nuclear industry.



Currently, he is the Environmental Compliance Manager at Savannah River Remediation, the liquid waste contractor at the Savannah River Site (SRS). In this role, he is responsible for environmental permitting and regulatory interfaces. He is also responsible for managing waste characterization operations required to disposition low-level radioactive waste, transuranic waste, hazardous waste, and mixed radioactive wastes generated at the Defense Waste Processing Facility (DWPF), Saltstone Production Facility, and high-level waste (HLW) Tank Farms, all at SRS.

CNTA Executive Director Jim Marra said Kirk has for years been thoroughly engaged in seeking innovative solutions to some of the most significant radioactive waste management challenges.

"Scott's vast list of accomplishments have demonstrated a great passion of the use of nuclear technology across a broad sector of the industry for over 30 years," Marra said. "His innovative approaches to solving complex issues facing the nuclear industry has been impressive. We are delighted that he is the recipient of the program's inaugural Nuclear Service Award."

A Charleston, South Carolina, native, Kirk has participated in numerous rulemaking initiatives; authored multiple scientific papers on these topics; and presented his perspectives with the nuclear industry, NRC Commissioners, and the National Academies of Sciences, Engineering, and Medicine.

Among many other notable achievements, Kirk has been a leader in the DOE's recent reinterpretation of the definition of HLW by providing regulatory/technical guidance to the DOE to conduct a pilot program to classify certain waste from DWPF as non-HLW for dispositioning as low-level waste at a commercial disposal facility.

The purpose of CNTA's Nuclear Service Award is to recognize accomplishments in applying nuclear technology, advancing education in nuclear technology, increasing public awareness of the benefits of nuclear technology and in promoting and defending the safe and effective use of nuclear technology.

Sharing Stories & Fostering Community at the SRS Museum

On Wednesday, October 30th the Savannah River Site Museum, located in downtown Aiken, South Carolina, hosted its grand re-opening in conjunction with the completed installation of a Department of Energy - Legacy Management funded exhibition. This permanent exhibit, "6,000 Stories," gives voice to the individuals displaced in 1950 from former towns like Dunbarton, South Carolina for the coming of what is now known as the Savannah River Site.

The exhibit hosts several interactives that allow Museum guests to dive deep into the history of the former towns, and to hear stories directly from displaced residents about their early lives. The Museum also features a cemetery database which, for the first time, provides ease of access for the public to locate any of the 6,000 relocated gravesites. Curious patrons, researchers, or families of the displaced residents can now visit the Museum and determine exactly where a gravesite was moved. The exhibit goes a long way in bridging the gap between the public and the Site by preserving the rich history of the area in a publicly accessible location.

This particular gathering brought together former residents, community members, and Site employees to reminisce on life before the plant, to trade stories, to reconnect with old friends, and to celebrate the preservation of such an important part of history. Former Dunbarton resident Ms. Margret Rountree remarked with pride, "Dunbarton dirt made space exploration possible." With one comment a room full of people began both to understand how 6,000 individuals could walk away from their family homes and call it patriotism, and to feel a sense of honor in being a part of this history themselves.

As the SRS Museum turns its attention to the future in preserving its past, additional new exhibits and a year of programming and events in celebration of the 70th anniversary are in the works. Through it all, the Museum hopes to continue honoring the history of the Savannah River Site, this region that has sacrificed for it, and this proud community that has sustained it. Oh, the stories we'll tell.

Savannah River Site Contractors Continue to Earn Industry Safety Recognition

AIKEN, S.C. (October 31, 2019) – Two contractors at Savannah River Site (SRS) continue to earn local, regional, and national recognition for their safety performance in 2018 and 2019, and together have accumulated 58 million safe hours.

The recognitions for Savannah River Remediation (SRR) and Savannah River Nuclear Solutions (SRNS) include the Occupational Excellence Achievement Award and Industry Leader Award from the National Safety Council (NSC); Palmetto Shining Star from the South Carolina Department of Labor Licensing and Regulation; and the Commendation of Safety Excellence from the South Carolina Chamber of Commerce. Additionally, SRNS received the NSC 25 Million Safe Hour Award for surpassing 25 million safe work hours without a lost day due to an on-the-job injury.

The SRS contractors earned the NSC's Occupational Excellence Achievement and Industry Leader awards for ranking in the top 5 percent of the NSC members that have qualified for the 2019 Occupational Excellence Achievement Award. Winners are selected based on employee safe work hours, among other factors.

SRR, the SRS liquid waste contractor, also earned the 2019 Innovation Award from the Voluntary Protection Programs Participants' Association (VPPPA) for efforts to protect workers from mercury vapors. In 2018, SRR's industrial hygiene team installed air sampling units capable of sampling and monitoring mercury levels as part of a pilot project.

In 2019, the SRR construction workforce surpassed 31 million hours without an injury that caused an employee to miss a day from work. The SRR operations workforce has worked more than 4 million hours without such an injury.

Similarly, SRNS amassed more than 27 million safe work hours in 2019, accounting for 834 days, marking a new company milestone for safety performance since becoming the SRS management and operations contractor in 2008.

"SRS employees are the key to our great safety performance. Safety is a matter of personal accountability and a commitment to an injury-free workplace," said Rick Sprague, SRNS senior vice president, environmental stewardship, safety, and health.

SRNS was also presented a Distinction Award by the Academy of Interactive and Visual Arts for its annual safety culture and engagement video production titled, "Safety and Security Begin with Me. At Work. At Home. In the Community." That award is presented to projects that exceed industry standards in quality and achievement, receiving more than 6,000 nominations annually from across the U.S. and around the world.

"These awards are the tangible evidence of a team that values safety as the key part of every operation and works together, in their own organizations and across company lines, to achieve safety excellence at SRS," said Patricia Allen, SRR director for environmental, safety, and health, quality assurance, and contractor assurance director. "The true reward for working safely today is being able to come back safely tomorrow. It is also a great honor to earn awards from state and national entities acknowledging the hard work SRS employees put into keeping each other safe every day."



Savannah River Site radiation protection employees don protective equipment while working in a glovebox. Gloveboxes are structures with ports containing gloves that allow waste handlers to safely work with radioactive material.

Savannah River Remediation Rewards Employees Through New Innovative Application

Submitted by: Savannah River Remediation

AIKEN, S.C. (October 23, 2019) – Engineers with the Savannah River Site (SRS) liquid waste contractor, Savannah River Remediation (SRR), have developed and implemented new technology to recognize and reward employees promptly for positive behaviors, actions, and attitudes.

Through the innovative application called RAVE (Recognizing Achievement of Values and Expectations), SRR employees can nominate peers who demonstrate specific behaviors and attitudes that reinforce SRR's values of safety, integrity, continuous improvement, teamwork, and ownership. After a nomination is approved by management, the nominee picks up a gift card as a token of appreciation.

One of SRR's expectations of teamwork is to recognize co-workers for exceptional performance, and RAVE is a simple and meaningful way to do that, according to SRR Chief Engineer Phil Breidenbach.

"Our RAVE winners don't just remember the gift card — that is simply a perk," Breidenbach said. "What makes the most impact is knowing that your co-worker or manager took the time to acknowledge your performance and hard work. That speaks volumes."

Thanks to the automated system, the mean time from when a nomination is submitted to when the nominee receives the gift card is 41 minutes.

"One of the keys to effective positive reinforcement is timeliness," Breidenbach said. "Positive reinforcement works best when it is immediate or as close to when the actual behavior occurred as possible. The quick turnaround time for employees to be recognized for their behavior helps make this new program a big success and improves the effectiveness of positive reinforcement."

Since the app's launching in June 2019, almost 200 nominations have been awarded through RAVE.

SRR is a team of companies led by AECOM with partners Bechtel National, Jacobs, and BWX Technologies, Inc. Critical subcontractors for the contract are Orano, Atkins, and AECOM N&E Technical Solutions.



Savannah River Remediation (SRR) Process Applications Engineer Eric Dantzler, right, receives a gift card from his co-worker Jason Hargrave. Dantzler was nominated for the reward through SRR's new RAVE (Recognizing Achievement of Values and Expectations) application.

Materials from SRS Help Prepare Future Welders

AIKEN, S.C. (Nov. 25, 2019) – Thousands of pounds of scrap stainless steel donated to area welding education programs will help give local welding students a boost toward well-paying careers. Welding programs at high schools and technical colleges in the region surrounding the Savannah River Site (SRS) each received 2,000 lbs. of stainless steel from the National Nuclear Security Administration (NNSA) at SRS for use in training future welders.



Welding stainless steel is a valuable skill in industry, but the cost of the material means that welding education programs usually are not able to give their students hands-on training with actual stainless. Instead, they train on carbon steel or other materials with properties that can be very different and wait until they are on the job to receive hands-on experience with stainless. "It's going to give them such a leg up to already have this experience," said Daniel Ball, welding instructor at the Aiken County Career Center. "Stainless is so different – it kind of has a mind of its own. Using this material, we will basically train them up so they can be placed with employers like SRS or Vogtle. The sky's the limit."

Photo caption: Michael Meyer (left), welding instructor at Evans High School, and welding students examine the donated stainless steel from SRS.

SRNS Employees Recognized for Support to U.S. Nuclear Deterrent *National Nuclear Security Administration Official Honors 81 Employees for Contributions to U.S. National Security*

Submitted by: Savannah River Nuclear Solutions

AIKEN, S.C. (Oct. 18, 2019) – Eighty-one Savannah River Nuclear Solutions (SRNS) employees received awards from the National Nuclear Security Administration (NNSA) for their significant contributions to the program responsible for ensuring the safety, security, and effectiveness of the U.S. nuclear deterrent.

The employees were members of five teams that received Defense Programs Awards of Excellence, established to recognize individuals or teams who made significant achievements in support of the Stockpile Stewardship Program or other important national security objectives. This award is for achievements that contribute to quality, productivity, cost savings, safety, creativity, and enhanced surety of the Nation's nuclear deterrent. Brigadier General Ty Neuman, NNSA's Principal Assistant Deputy Administrator for Military Application, presented the awards at the Savannah River Site (SRS). In his remarks to the honorees, Brig. Gen. Neuman noted that much of the work for which these teams were being recognized involved "talented individuals who used innovation to make existing capabilities even better," and expressed his deep appreciation for their accomplishments.

One of the award-winning teams was recognized for improvements to the system that unloads tritium reservoirs returned from the stockpile so the gas can be purified, recycled, and reloaded into new reservoirs. The other teams were recognized for their work in support of the programs that make up NNSA's warhead modernization activities. These activities ensure that the U.S. nuclear weapons stockpile continues to meet Department of Defense (DoD) requirements while enhancing safety and security without providing new military capabilities or the need for explosive nuclear testing.

One of the groups of honorees consisted of the SRS members of a multi-site team recognized for Exceptional Achievement – a special category of Defense Programs Awards of Excellence reserved for those accomplishments that are "home run" examples of using stockpile stewardship capabilities to promote and further advance important national security objectives.

SRNS honorees included personnel from the Savannah River Tritium Enterprise (SRTE) and Savannah River National Laboratory (SRNL), along with other supporting SRNS organizations. SRTE serves the NNSA as the Nation's only center for products and services related to tritium, the radioactive form of hydrogen used in our nuclear defense. SRNL is the applied research and development laboratory at SRS, serving the Nation by providing innovative solutions for the U.S. Department of Energy, NNSA and other federal agencies across the country and around the world.

SRNS, a Fluor-led company with Newport News Nuclear and Honeywell, is responsible for the management and operations of DOE's Savannah River Site, including the SRTE and SRNL.

Visit us on the web at www.savannahrivernuclearsolutions.com



Photo Caption: Brig. Gen. Ty Neuman (seated left), along with SRNS President and CEO Stuart MacVean and NNSA-Savannah River Field Office Manager Nicole Nelson-Jean (standing left) recognized 81 SRNS employees for receiving NNSA's Defense Programs Awards of Excellence.

Putting the Puzzle Together: Designing Within Existing Nuclear Facilities

Submitted by: Merrick

Designing gloveboxes can be a unique endeavor which comes with a multitude of challenges. A design team must consider numerous design inputs depending on the purpose of the enclosure(s). NQA1 requirements for the design and fabrication of gloveboxes for nuclear containment applications can be quite complicated and invokes a higher standard than typical mechanical design applications. Working a design of this type can be fraught with pitfalls even when working within a greenfield project that allows you to design without existing physical constraints.



With an eye towards cost savings, many projects in the nuclear world are looking to repurpose existing buildings. Sometimes this is done by allocating existing space within an operating facility and designing a project to fit within the confinements of the existing physical space. This presents additional challenges to the design not only for the enclosures themselves, but for the design of the supporting facility infrastructure. Solving the problem of combining existing utilities where necessary and introducing new equipment without impacting the existing operations can challenge a design team to come up with practical and creative solutions to unique problems.



Additionally, designing and developing the special facility equipment and gloveboxes for a project in support of a large production process can also be a daunting task. When you combine this with trying to fit a design into a facility that was built with an entirely different purpose in mind, you must address a variety of design considerations. When placing glovebox equipment, maintaining the integrity of the process while addressing problems like ingress/egress concerns, ceiling heights and existing walls, makes for some interesting challenges when laying out your floor plans.

As Nuclear Facility and Glovebox experts, Merrick is combining our extensive experience with glovebox designs and applying them to projects just like these to help our clients successfully execute projects that support the DOE and NNSA nuclear weapons mission. We rely on the vast experience of our talented staff located in offices throughout the United States to take the variety of puzzle pieces that can come as part of a project and create a successful design that satisfies a client's needs.

Expanding our Engineering Services Within the NNSA Complex

Merrick & Company founded in 1955 is a professional engineering services solutions firm. Our employee-owned company thrives on serving our diverse clients, both domestically and internationally. Our company maintains 21 offices across the United States, Canada, Mexico and the UK. Merrick is a nimble and agile engineering firm who can address our clients' needs efficiently. Our niche offerings in Nuclear Facility and Containment Equipment design allows Merrick to be a clear leader in any of our Nation's Strategic Materials Production Facilities. Merrick currently has a presence at Los Alamos National Laboratory, Oak Ridge National Laboratory, Y12 and Pantex Security Complex and the Savannah River Site. Merrick has also performed projects for other key clients within the DOE/NNSA Complex.

In 2018, TRIAD National Security, LLC was awarded the Los Alamos M&O Contract. Merrick was on this team and is currently a named subcontractor to TRIAD. Merrick has had a presence in Los Alamos since 1986 designing equipment for the Plutonium Facility (PF-4) at TA-55. Merrick has also worked on nuclear facility designs at the Isotope Production Facility and CMRR facility at Los Alamos. Our current contract has allowed Merrick to participate on one of our countries most important missions and that is developing a production facility to manufacture Plutonium Pits at the Savannah River Site.

Merrick has been growing corporate wide and has in fact added 185 employees over the last year. This amount of growth is unprecedented in today's labor pool. Part of our growth is related to the Savannah River Plutonium Processing Facility (SRPPF). Merrick currently has over 50 full time engineers working the conceptual design and planning activities associated with CD-1 submission. Merrick has been working closely with the staff at Savannah River Nuclear Solutions. This close collaboration with SRNS and NNSA has been a great partnership.

In order to fully support the SRPPF project, Merrick opened an Aiken office in May of 2019. Our goal was to hire local people that had intimate knowledge of the now repurposed MOX facility. Our first hire, Bill Taylor, was a great addition and has done an excellent job filling positions in our new office. A culture of excellence, integrity and respect is of utmost importance to Merrick and our current staff in Aiken reflect this culture.



On November 7th, 2019, our Merrick Aiken office held an Open House event that showcased our people, our commitment to the Aiken community and our overall desire to grow our business serving our NNSA clients.

Merrick is currently enjoying growth corporate wide. Our commitment to carefully plan for this growth and strategically hire the right people to serve the needs of our clients is a testament to our values which is **Respect Integrity Service Excellence** or RISE.

Mission of CNTA

Citizens for Nuclear Technology Awareness, Inc., is an education and advocacy group promoting the safe and effective use of nuclear power, nuclear research and nuclear medicine.

We provide education, networking, and a voice of understanding from a technical perspective in a world often influenced by **inaccurate and unwarranted fear**.

CNTA membership encompasses individuals, families, and businesses who support the use of nuclear science and technology for many applications, including: energy, national security, nuclear medicine and diagnostics, and industrial applications.

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Member Plus— \$250.00 or more
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Membership Information is available online at:
<http://cntaware.org/join-us/>

All membership levels include invitations to breakfasts/dinners, other events, quarterly newsletters and opinion letters/editorials. Benefactor and Member Plus also receive one free private reception ticket and one free Teller Lecture banquet ticket when dues are current.

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HOW YOU CAN HELP

CNTA as a charitable non-profit organization can ALWAYS use help.

Opportunities include:

- Donate Items for Raffles/Auctions
- Donate to CNTA as a charitable non-profit (<https://cntaware.org/about-us/>)
- Volunteer your time
 - Get involved with a CNTA Committee (descriptions on pg. 4)
 - Volunteer to help in our Office
 - Be an event-specific volunteer
- Consider Sponsoring a 2020 Event or Education Outreach!

For information email Allison at cnta@bellsouth.net

CNTA CALENDAR OF EVENTS

December 12, 2019- Tap Into Nuclear. 5:30-7:30pm at SRS Heritage Museum.

January 29, 2020- Up & Atom. Speaker: Michael Lempke, President, Nuclear & Environmental Group with Huntington Ingalls Industries. 7:30am at Newberry Hall in Aiken.

February 20, 2020- Up & Atom. 7:30am at Newberry Hall in Aiken SC.

March 24, 2020- Members Mixer. 6-8pm at Newberry Hall in Aiken SC.

May 8, 2020- 18th Annual CNTA Charity Golf Tournament! Held at Houndslake Country Club in Aiken SC.

JOIN CNTA AND HAVE THE CALENDAR OF EVENTS EMAILED TO YOU!!

Thank you to all our 2019 Event Specific & Education Outreach Sponsors

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CNTA is now seeking partners for our 2020 Events & Education Outreach. If you would like listing of the available opportunities please email CNTA at: cnta@bellsouth.net

Also many thanks to our anonymous donors and private foundation gifts!