

CNTAware



Spring 2024

- •Communications
- Committee Updates
- Education Committee
- Updates
- •Up & Atoms
- •CNTA Welcomes New Board Members
- •Young Professionals
- Committee Updates •12th Annual Membership
- Appreciation NightUGA's SREL Job
- Shadowing Event
- •Olin "Gene" Rhodes named AAAS Fellow
- •Law Enforcement Supervisors Graduate
- •Centerra Helps Honor New Military Enlistees
- •SRNS 'STEM That Travels' Brings Unique Offerings
- •SRS Tops 15 Million Gallons of Salt Waste Processed
- •BWXT Releases 2024 Sustainability Report
- •CNTA and SRNS
- Celebrate their Partnership •Omega Partners with
- Clean UP Aiken
- •SRNL Celebrates 20th Anniversary
- •Updates from the SRS Museum
- •CNTA Committees
- •Thank you Members
- Board of Directors
- Membership Information
- •How YOU Can Help
- •Calendar of Events



Update from our Executive Director

Spring 2024 has been a mixed-bag here at CNTA. We've had some great activities, but some heavy losses.

First, I'd like to recognize some of the CNTA members vital to past successes that have died this spring. Since January we have lost many, including: John Pullen, Ken Hoffstetter, Len Sjostrom, and Bob Hanvey. There are even more I won't name, but each of these individuals contributed in their own ways to make CNTA what it is today. For CNTA's future success, we all need to redouble our efforts to fill the voids left by their passing.

While it was a difficult spring, we've also had dozens of CNTA members volunteer as essay contest judges, event volunteers, educator grant judges, and assist CNTA at outreach events. Many thanks to those who helped CNTA narrow down our essay contest entries to eight winning students. We also awarded five educator grants to area teachers this spring.

Congratulations to the teachers and schools who have received grant funding! Your funded projects will help hundreds of students gain hands-on experience with STEM activities and, we hope, build an interest in furthering their knowledge on nuclear related topics.

In this edition you will also find the eight winners of the High School Essay Contest. We had the largest number of entries in over a decade and deciding winners was incredibly difficult. The winning students will join us for the July Up & Atom, so make sure you attend and congratulate them in person.

Finally, CNTA is preparing for a very busy May, June & July. Our calendar is packed and we hope to see you at some of our activities!

Allison

Citizens for Nuclear Technology Awareness- Mission

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.

Communications Committee Updates

HELP CNTA & HELP THE COMMUNITY

Back for its 4th year! Support local business by purchasing items

or gift cards & donate them to CNTA!

Contact Allison (office@cntaware.org) for details

onations can also be made al: https://cntaware.org/about-us/ & CNTA.will purchase gift cards from local businesses.

> event by September 1, 2024 will be entered into a drawing for two in Fall YP Fundraiser at Palmetto Golf Club on October 12th!

Advocacy/ Public Outreach Activities

CNTA has written nine press releases this spring and has been in the local news over a dozen times.

The communications committee, led by Lindsey MonBarren (SRNS) coordinate all aspects of CNTA's public outreach. They are preparing now for the fall Nuclear Science Week Insert in the Aiken Standard. If you want to be a part of this effort, let us know!

The Community Gift Card program is back for 2024!

This program provides raffle prizes for CNTA raffles and supports local businesses. Individuals can donate cash, gift cards, or raffle prizes purchased from local businesses and be entered to win two tickets to the fall Oyster Roast!

Since 2020 this program has raised over \$7,000!

CNTA had two board members join this spring and welcomed two new committee chairs.

- Aherial Polite has taken over the education committee from Dr. Marissa Reigel. Aherial is the Dean of the School of Arts and Sciences at Augusta Technical College in Augusta, Ga.
- Kenny Lee has taken over the young professionals committee from Sally Bartelmo. Kenny is a mechanical equipment engineer in the nuclear service and technology business unit for Merrick & Company.

CNTA members have been busy in area schools and at events this spring!

A few of our 2023 activities include:

- Williston-Elko High School Career Day
- PEP New Teacher Night
- Aiken Scholars Academy
- ATC Scholarship Breakfast
- ATC Sustainability Expo
- Earth Day Aiken
- SRS Retirees Association Annual Meeting

Lifelong Learning Classes at USC Aiken

CNTA volunteers taught many classes at the Center for Lifelong Learning this spring, including:

- 1. Lessons Learned from Nuclear Incidents; a three part course focusing on Three-Mile Island, Chernobyl, and Fukushima taught by Jim Marra, Brittany Williamson, and Bill Dornsife.
- 2. Nuclear Science Fundamentals; a six part course taught by Bill Wabbersen. Students learned about the atomic nucleus, isotopes, radiation, radioactive half-life, and the uses of nuclear technology in our world today in a unique and approachable manner.
- 3. International Nuclear Implications; a three part course taught by Charles Munns and Kenneth Stephens.
- 4. The Manhattan Project & Origin of the DOE Complex was taught by Chuck Goergen.

Allison Hamilton also taught two political science courses, and Jim Tisaranni taught a course on submarines this spring. Students with Lifelong Learning also had the opportunity to sign up for a tour of Plant Vogtle.

We have plans to again present a variety of courses in the fall. Information on the Center for Lifelong Learning can be found at: <u>https://aikenlearning.org/index.html</u>.

Page 2

A. CNTA

Education Committee Updates

2024 Essay Contest Winners Announced

Eight high school students representing six schools across the area have been awarded a scholarship from Citizens for Nuclear Technology Awareness (CNTA) for outstanding essays on a nuclear topic.

Each student picked a topic ranging from a comparison of greenhouse gases to nuclear power, use of isotopes in medical procedures and diagnostics, or nuclear technology on Mars.

The winners of the 18th annual CNTA Essay Contest are:

\$1,000 Winners

- Sonal Kapuria, Greenbriar High School, for "The transformational role of radioisotopes in medicine"
- Grayson Fleury, North Augusta High School, for "The bright future of nuclear power"
- Zhengyu "Jerry" Lu, Lakeside High School, for "Nuclear Medicine: Its Isotopes & Innovations"

\$750 Winner

Coralyn Carins, Lakeside High School, for "Radioisotopes in Medicine: 21st Century Technology"

\$500 Winners

- Megyn Bolen, Home School, for "Radiation Rocks"
- Paige Dayton, SC Governors School for the Arts, for "Nuclear Energy & the Colonization of Mars"
- William Seigler, North Augusta High School, for "90 seconds"
- Chassity Williams, South Aiken High School, for "The uses of medical isotopes"

The goal of the CNTA Essay Contest is to increase high school student awareness of nuclear technologies and their impact on society, according to CNTA Executive Director Allison Hamilton Molnar.

"We were very impressed with the quality of the essays we received from all the students this year," Hamilton Molnar said. "It was exciting to see the breadth of information the students included in their essays."

Over the course of the Essay Contest program, CNTA has awarded over \$80,000 to deserving students. Many thanks to the dozen CNTA volunteers who helped judge this year's contest.

2024 Maher Memorial Scholarship

The 2024 Maher Memorial Scholarship application is available! The \$5,000 scholarship is sponsored by Savannah River Mission Completion (SRMC). SRMC is the liquid waste contractor for the U.S. Department of Energy at the Savannah River Site (SRS).

This scholarship will be awarded to a Junior or Senior at a college or university in South Carolina or Georgia who demonstrates an outstanding academic achievement in nuclear science/

engineering or a directly related field, such as chemical engineering, mechanical engineering, environmental science, materials science, etc., with applications to the nuclear field.

The Robert Maher Memorial Scholarship is a joint project of CNTA and SRMC. Maher, Vice President and General Manager for Strategic Mission Development at SRS, passed away in 2002 after a 48-year career at the Site. A visionary with a broad view of the Site's potential, Maher helped shape SRS.

The annual scholarship was established in Maher's memory to support students pursuing science and engineering degrees in preparation for careers in the nuclear field.





CNTA volunteers met 2023 contest winner Kaitlyn Redd at the Williston-Elko Career Fair on April 19th.

Page 4

Educator Grants Program

Citizens for Nuclear Technology Awareness (CNTA) recently awarded five educator grants to help fund science-related curriculum in local classrooms.

The grants, up to \$500 each, will be used to fund projects that promote an increased understanding of science, technology, engineering, and math (STEM) through hands-on activities in the classroom.

The 2024 CNTA Educator Grant Winners are:

- Rus George, Westabou Montessori;
- Amanda H. Waymer, Aiken Scholars Academy;
- Gwen Fundak, Jefferson Elementary;
- Amy Wolfe, Mossy Creek Elementary; and
- Regina Dunbar, Paul Knox Middle.

The teachers will use the grant funds to purchase STEM activities and resources, such as stop-motion animation materials, a drone maker kit, and materials to study the effects of radiation on seed germination and plant growth.

CNTA is honored to continue this important grant program to facilitate more local educational outreach by the organization, said Dr. Allison Hamilton Molnar, CNTA Executive Director.

"These grant awards are part of our continued partnership with area educators to provide innovative, creative, and memorable classroom activities to get students excited about STEM," Hamilton Molnar said. "We hope students find these projects, funded by CNTA, informative and fun in ways that will spark an interest to pursue a critical and meaningful career in STEM field."

Up & Atoms

 March 13, 2024- "Fuel Strategy for the eVinci Microreactor" Dr. Kallie Metzger, eVinci Fuel Director, Westinghouse

Check the calendar of events for our summer lineup! We will see you in June, July, and August at Newberry Hall for some riveting Up & Atoms!



CNTA Welcomes New Board Members

Kenny Lee is a Mechanical Equipment Engineer with Merrick & Company within its nuclear service and technology business unit. He is a project engineer on nuclear service design projects and graduated from Merrick's business program in 2023. Prior to his career with Merrick, Lee was a design engineer with Great Dane and served as an engineering liaison for material suppliers. He earned his bachelor's degree in mechanical engineering from the Georgia Institute of Technology and pursued his master's degree in business administration at Georgia Southern University. Lee is the Chairman of the Savannah chapter of the Sports Car Club of America.





Dr. Scott McKay is the Dean of the College of Science and Engineering and the Assistant Vice Chancellor of Research at the University of South Carolina – Aiken. Previously, he held academic positions with Dakota State University, Southern Arkansas University, the University of Central Missouri, the University of Alabama, and Lehigh University. Dr. McKay earned his bachelor's degree in chemistry and geology, his master's in analytical chemistry, and his Ph.D. in organic chemistry from the Florida Institute of Technology. His research interests include alternative energy, petroleum products, crystal engineering, and proton exchange membranes for hydrogen fuel cells. In addition, he consults for energy related companies, served on the board of directors for

the Arkansas Economic Development Commission, and won the "Excellence in Technology Award" from the tri-state development authority for Arkansas, Texas, and Louisiana.

CNTA also welcomes new board Chairman Dr. Forest Mahan from Aiken Technical College. Joining Dr. Mahan on the leadership team is Jesus Mancilla from SRNS as the new Vice-Chairman. Charlie Hansen is returning for another term as Treasurer.

CNTA thanks outgoing Chairman Steve Sheetz for his years of service to the organization and his willingness to stay on our board of directors in the position of Immediate Past Chairman. CNTA also thanks non-returning board member Wyatt Clark for his dedicated support and contributions over the last several years.

Young Professionals Committee Updates

Tap Into Nuclear

Citizens for Nuclear Technology Awareness (CNTA) and the Savannah River Site (SRS) Museum hosted the 2024 Kickoff Event for Aiken Young Professionals (AYP), a part of the Aiken Chamber of Commerce, on January 11, 2024.

"This kickoff event presents an invaluable opportunity for young professionals to converge, connect and collaborate," said Kristen Laird, Director of First Impressions for the Aiken Chamber of Commerce. "Our goal is to bring together members from all types of professions, enabling them to develop both socially and professionally, while introducing them to all that Aiken has to offer."

The event was tailored for young adults ages 22-39 and offered a chance for guests to interact with the museum's exhibits and learn more about the history of SRS. The event was attended by 120 people.

"The event was a fantastic opportunity to learn more about those working in numerous fields of study that might lead to future interdisciplinary collaborations and scientific efforts, said Cyber Analyst and Space Scientist Rachel Jones with Savannah River National Laboratory. "I am hopeful that similar events can be hosted in the future."

CNTA Executive Director Allison Hamilton Molnar said the evening served a dual purpose. "The networking event gave us an opportunity to introduce CNTA and its important mission to members of the Aiken Chamber's Young Professionals, while also allowing CNTA Young Professionals to make connections with people from different industries," she said. "We are proud, long-time members of the Aiken Community and look forward to seeing the direction our rising young professionals take us in the future."

Fall Young Professional Fundraising Event

The Annual Fall Young Professionals Fundraiser is set for October 12, 2024 at Palmetto Golf Club! This event raises funds for all of CNTA's young professional outreach, the Tap Into Nuclear series, and the free memberships for young professionals.

The committee will start organizing this event in June and we need your help! About 25 young professionals are needed to help on the committee and that evening. In return you get to attend the event with a guest for free! Contact <u>cnta@bellsouth.net</u> if you can help with this event, or if you'd like sponsorship information.

12th Annual Membership Appreciation Night

Citizens for Nuclear Technology Awareness, the area's non-profit organization for nuclear education, held its membership appreciation night and annual meeting on March 21.

The event highlighted the exciting progress CNTA made in 2023. Some of the accomplishments included:

- Celebrating 32 years of being the voice of truth on nuclear matters across the Central Savannah River Area
- Interacting with thousands of community members, educators, and students at multiple STEM events, six Up & Atom breakfasts, celebrated five years of outreach to young professionals in the nuclear industry, held two DOE summer courses, and a Lifelong Learning class at the University of South Carolina Aiken
- Reaching over 30,000 households by publishing the Nuclear Science Week insert in the Aiken Standard
- Awarding more than \$14,000 in scholarships and grants to area students and teachers
- Raising over \$11,000 for young professional outreach
- Hosting the 32nd Annual Teller Lecture & Banquet at the Amentum Performing Arts Center in downtown Aiken with the Honorable Joyce Connery, chair of the Defense Nuclear Facilities Safety Board

"We had another successful year advocating for nuclear technologies thanks to our volunteers, members and our company sponsors," said CNTA Executive Director Allison Hamilton Molnar. "We look forward to growing our grass-roots organization and helping spread the facts about nuclear technologies to our communities in 2024."



CNTAware

UGA's SREL Job Shadowing Event

Submitted by Savannah River Ecology Laboratory

Th University of Georgia's Savannah River Ecology Lab (SREL) recently participated in a district-wide initiative aimed at fostering connections between students and potential careers. As part of this initiaite, juniors and seniors from South Aiken High School were given the opportunity to attend a Job Shadowing Day event at the SREL Conference Center. Under the guidance of the SREL Outreach team, the students engaged in a variety of hands-on activities designed to provide insight into the roles of *kat teach districtivide* districtivide

Kacee Poppy, a local chemistry teacher from South Aiken High School, expressed her appreciation for the opportunity, stating, "I was delighted that SREL provided the opportunity

for my students to see what the job of a wildlife biologist entails. This experience was truly eye-opening for my students because many of them thought a biologist just walked around in the woods all day and got to play with animals. However, because of this field trip, they now understand how much work goes into collecting data about various types of creatures by utilizing specialized trapping techniques."

During the event, the students immersed themselves in exploring local flora and fauna, examining trail camera footage, identifying organisms through microscopes, conducting water sampling, and interacting safely with animals captured in the field.

The event was nothing short of a great success, thanks to the work of SREL's outreach team. The students left the event with a newfound appreciation for nature and a heightened sense of curiosity and excitement for future careers in ecology and environmental sciences.

Poppy explained, "Afterwards, several students told me the trip solidified their interest in the field and they were inspired and excited to pursue becoming a wildlife biologist."

Events like this are crucial for the development and education of young minds. By exposing students to the world of ecology and environmental sciences, we are inspiring and motivating them to pursue careers in these fields. The SREL Outreach team has set a high standard in organizing such events and has paved the way for more like-minded events in the future.

Olin "Gene" Rhodes named AAAS Fellow

Submitted by Savannah River Ecology Laboratory

Olin "Gene" Rhodes was named a fellow of the American Association for the Advancement of Science (AAAS). Rhodes was one of three University of Georgia faculty named a fellow in the organization's April 18th announcement.

Fellows are elected yearly by the AAAS Council to recognize achievements that lead to scientific progress. AAAS has been selecting fellows since 1874 and includes members such as Thomas Edison, Steven Chu, Ellen Ochaoa, and many others who have contributed significantly to advancing science in their fields.

Rhodes, a UGA Athletic Association Professor at Odum School of Ecology and the Savannah River Ecology Laboratory's director, conducts a range of research that informs the management and conservation of wildlife. From wildlife ecology and genetics to the application of genetic tools, his work has been used worldwide in conservation efforts for endangered species, to refine and optimize reintroduction programs, and to improve the mitigation of wildlife diseases and human-wildlife conflicts.

"I am honored to have received this distinction and thankful to DOE and our partners within the local community for having the kinds of careers that merit such national recognition," Rhodes said.





A student peers through a microscope looking at macroinvertebrates from Upper Three Runs Creek.



A student holds a green anole as they study the local plants and animals in the Central Savannah River Area, learning about a variety of tasks that wildlife biologists and technicians participate in.



Law Enforcement supervisors graduate from prestigious FBI Carolina Command College course

Submitted by Centerra-SRS

Centerra-SRS has demonstrated performance excellence for over 40 years at SRS and the reason we have been so successful is due to our great team of employees and supervisors. In particular, continuous improvement and professional development play a key role in ensuring that supervisors are always ready to support our important National Security mission. Recently, two of our key Law Enforcement Department supervisors graduated from a prestigious training course that is conducted annually in South Carolina by the Federal Bureau of Investigation.

Lt. Demetrick Drumming and Lt. Benjamin Clark graduated from the FBI Carolina Command College in March. The course provides training for law enforcement executives and management personnel that is focused on a comprehensive understanding of leadership, recent developments, and emerging issues that impact law enforcement policies and practices.

"The Command College is put on once a year by the Columbia Office of the FBI in conjunction with the South Carolina FBI National Academy Associates Chapter," said Chief Dwayne Courtney. "This course is offered to a limited number of law enforcement professionals and those interested in attending must submit an application which is reviewed prior to acceptance."

Some of the sessions this year included Common Legal Issues for Law Enforcement, Tactical Mindset, Color of Law and Hate Crimes, Mental Health and Awareness, Motivated Leadership, PTSD Awareness, and a case study of the 2023 Aurora Shooting.

"This course augments the in-house training that our Law Enforcement Officers have already received both at the South Carolina Criminal Justice Academy and within our own Training Division, and significantly adds to their leadership skills and expertise," added Chief Courtney. "I want to thank both Lt. Drumming and Lt. Clark for their commitment to continuous improvement and congratulate them for graduating from this course."

Centerra helps honor new military enlistees

Submitted by Centerra-SRS

According to recent studies, only one percent of graduating high school students enlist in the Armed Forces each year. We should do all we can to recognize those young patriots who step up to protect our freedoms and help them in their transition into the military.

Our Community Salutes is a national organization, founded in 2009, to honor our Nation's graduating high school seniors who plan to enlist into the military following graduation. Our Community Salutes-Midlands South Carolina is a regional chapter of the national organization.

Centerra-SRS is proud to join in supporting this effort and recently donated \$2,500 to Our Community Salutes to partner in honoring the military enlistees.

The organization presents an annual gala, which will be in May this year, for these high school enlistees and their families. The event is free to all invitees which will be approximately 250 when enlistees, parents, high school guidance staff, ROTC staff, county school staff, and recruiters are included. In order to help the sons and daughters of regional families transition into military service, the organization depends on the support of the community and businesses.

"Your support makes it possible for us, as a community, to be the first to say thank you to our fine young men and women entering the military directly from high school," said Duncan Huyler, Our Community Salutes-Midlands South Carolina. "Our organization is funded entirely by charitable organizations and thanks to your generous donations, we are able to honor the new enlistees from our community."

For more information about the local chapter of Our Community Salutes, visit their web site at <u>www.ocs-midlandssouthcarolina.org</u>.

Page 8







Come meet Savannah River National Laboratory!

Learn about your national laboratory, what we do and why it matters to you. Enjoy live music, food trucks and STEM activities for all ages.

Savannah River National Laboratory is celebrating the 20th Anniversary of its designation as a Department of Energy national laboratory. While our name has changed in the 70 years we've been part of the CSRA, we remain focused on protecting our environment, serving our national defense, securing our clean energy future and reducing emerging nuclear threats.



Ice Cream BBQ and more! Low Country Locals **Chip Herring** Jack McCarthy



Featuring the M'Aiken Magic **Robotics Team!**

WWW.SRNL.GOV

SRNS 'STEM That Travels' brings unique offerings to K-12 students

Submitted by Savannah River Nuclear Solutions

An ongoing Savannah River Nuclear Solutions (SRNS) partnership with the University of South Carolina Aiken (USC Aiken) Ruth Patrick Science Education Center (RPSEC) brings the "STEM That Travels" program to K-12 students in the Central Savannah River Area.

Formerly known as "Traveling Science," "STEM That Travels" introduces expert scientists and engineers from the Savannah River Site (SRS) to lead lessons in science, technology, engineering, and math (STEM) in local classrooms. For four decades, SRNS Education Outreach and RPSEC have partnered to infuse a love for STEM in students' minds through hands-on demonstrations and initiatives.

"The STEM demonstrations spark students' interest in the Department of Energy's mission-critical skills and careers," said Cindy Hewitt, SRNS Education Outreach Specialist. "We aim to inspire students to follow career paths in STEM that will support a capable workforce in the future."

SRS volunteers conduct demonstrations and experiments for teachers and students using science kits provided by RPSEC.

Kim Mitchell, SRNS Education Outreach Program Lead, believes the partnership goes beyond the traditional classroom experience and helps students discover their unique interests. "This partnership enhances teachers' abilities to provide hands-on math and science lessons with equipment and kits not always available to most schools," said Mitchell. "Students have the opportunity to truly experience what it would be like to work in that field from real-world engineers or scientists."

SRNS recently donated \$10,000 to the Aiken Partnership Board to support USC Aiken – \$2,500 of which will be used to repurpose and upgrade the science and math kits housed at RPSEC. SRS volunteers can checkout themed kits for STEM demonstrations at various schools.

"Our volunteers constantly utilize RPSEC's circuit boards, 'Newton's Toy Box' and 'Zoom Into Engineering' kits to bring different experiences to local students," continued Hewitt. "By providing the funding needed to repurpose the science kits, we will be able to impact more students in the future."



Savannah River Nuclear Solutions Engineering Volunteer Blythe Ferguson, right, uses Ruth Patrick Science Education Center's "Zoom into Engineering" science kit during the "STEM That Travels" event at Millbrook Elementary.

SRNS "Stem That Travels" is an ongoing initiative that reaches eight school districts — six in South Carolina and two in Georgia. For more information on this program, click here.

Savannah River Nuclear Solutions, a Fluor and HII partnership company, is responsible for the management and operations of the Department of Energy's Savannah River Site, located near Aiken, South Carolina.

Page 10

Savannah River Site Tops 15 Million Gallons of Salt Waste Processed

Submitted by Savannah River Mission Completion

The Savannah River Site's (SRS) liquid waste program has processed more than 15 million gallons of radioactive salt waste since 2008 through the work of three major facilities.

To reach this milestone of 15 million gallons processed, SRS has relied on the Salt Waste Processing Facility (SWPF) for the past three years, along with the past performance of the Actinide Removal Process/Modular Caustic Side Solvent Extraction Unit (ARP/ MCU) and Tank Closure Cesium Removal (TCCR).

Radioactive liquid waste is generated at SRS as byproducts from processing nuclear materials for national defense, research, medical programs, and for NASA missions. The waste — totaling 33 million gallons — is stored at SRS in two groupings of underground waste tanks known as tank farms.

Jim Folk, DOE-Savannah River assistant manager for Waste Disposition, said waste is being safely removed from the aging tanks and the site's treatment of liquid waste is moving forward.

"We are now processing more waste faster, further reducing the risk to people and the environment," he said.

In the fiscal year ending September 30 last year, SWPF set a single-year record by processing nearly 3.2 million gallons of radioactive salt waste. This facility was the final piece needed to finish treating and disposing of the liquid waste.

SWPF separates and concentrates the highly radioactive waste — mostly cesium, actinides and waste slurry — from the less radioactive salt solution. The process begins by transferring the waste from H Tank Farm to SWPF, where it undergoes a two-step cleanup process.

The first step, known as the alpha strike, removes actinides, such as uranium and plutonium, from the waste. The second step, known as caustic side solvent extraction, is designed for the removal of radioactive cesium.

After the separation process is completed, the concentrated high-activity waste is sent to the nearby Defense Waste Processing Facility (DWPF). There, the waste is combined with sludge waste, immobilized in glass and stored in stainless steel canisters in reinforced, underground vaults called Glass Waste Storage Buildings (GWSB). The canisters will be safely stored in the GWBSs until a federal repository is established.

The decontaminated salt solution from SWPF is mixed with dry materials to create a grout at the nearby Saltstone Production Facility (SPF) for disposal onsite. The grout is pumped from SPF into Saltstone Disposal Units (SDUs). There, the grout solidifies into a monolithic, non-hazardous low-level waste form called saltstone.

Dave Olson, president and program manager of Savannah River Mission Completion, the Department of Energy Office of Environmental Management's liquid waste contractor at SRS, said that SWPF is now the facility in the SRS liquid waste program that will treat most of the volume of the waste in the tanks.

"SWPF operates at a much larger scale than earlier salt waste processing facilities," Olson said. "We continue to engineer improvements at SWPF that we expect to help us achieve even greater production goals."

SWPF's radioactive commissioning began October 2020. In its first three years of operation, SWPF has safely processed nearly 7.5 million gallons of tank waste.

To reach these levels, optimizations were made to enhance the facility's existing design capabilities.

Optimizations include changes to the amount of monosodium titanate (MST) used and the addition of an on-line flushing capability for the facility's strip effluent coalescer (SEC). During the solvent recovery function, the SEC gathers small droplets of solvent and grows them into larger droplets so they can be easily removed from the system. However, other unwanted particles in the waste – such as mercury and titanium – are also collected on the surface of the SEC.



In its first three years of operation, the Salt Waste Processing Facility processed approximately 7.5 million gallons of tank waste, significantly contributing to the liquid waste program's output of 15 million gallons of radioactive salt waste since 2008.

Previously, to clean the SEC, operations were required to temporarily shut down.

These improvements are already demonstrating that SWPF requires less downtime for maintenance, which means more time for production. SRMC's planned modifications will help boost the system to process even greater quantities, moving toward the processing goal of 9 million gallons each year.

ARP/MCU Processes First Salt Batches

The forerunner to SWPF was ARP/MCU, which began operations in 2008. ARP/MCU were designed as a demonstration project to show that salt waste in the high-level waste tanks could be separated from the more radioactive constituents.

Although ARP/MCU were expected to operate temporarily, the facilities performed well for 11 years before suspending operations in 2019 to prepare for startup of SWPF.

The two facilities worked as an integrated system to decontaminate the salt waste.

ARP decontaminated the salt solution through adsorption of actinides and entrained sludge solids onto MST, followed by filtration or settling. The actinides and MST-laden sludge waste stream was transferred to DWPF, while the remaining clarified salt solution was transferred to MCU.

Using principles involving centrifugal force and a special engineered solvent, MCU separated the high-activity salt solution into two waste streams. The process removed cesium from the clarified salt solution using solvent extraction chemistry. The removed cesium was sent to DWPF to be vitrified, poured into stainless steel canisters, and moved to the GWSBs. The remaining decontaminated salt solution was transferred to SPF to be mixed with dry materials to form a cement-like grout for safe, permanent on-site disposal in the SDUs.

During their lifetime, ARP/MCU processed 7.4 million gallons of radioactive salt waste.

TCCR Supports Processing

The TCCR project, which operated from fiscal year 2019 until the project was suspended in 2022, consisted of a self-contained ion exchange process for the removal of cesium from the liquid salt waste to provide a supplemental treatment capability. TCCR removed cesium from more than 371,000 gallons of tank waste.

The high-level waste constituents, such as cesium, must be removed from the tanks before the tanks can be operationally closed and removed from service. Cesium's characteristics make it a top priority for removal.

The TCCR unit was situated beside a feed tank, allowing the cesium-removal to take place outside of the tank. The waste passed through the module, including a pre-filter and multiple ion exchange columns. The waste stream was treated with an engineered resin inside the ion exchange columns to remove the cesium, then the decontaminated waste was transferred to SPF.

BWXT Releases 2024 Sustainability Report

Submitted by BWXT

BWX Technologies, Inc. (NYSE: BWXT) has released its 2024 Sustainability Report, demonstrating the company's role in good governance, environmental stewardship, the ongoing global clean-energy transition, global security, investment in the communities where we operate, and many other initiatives critical to corporate social responsibility (CSR) excellence.

"At BWXT, we are committed to the employment of nuclear technology to solve some of the world's most important problems," said Rex Geveden, BWXT's president and chief executive officer. "This year's Sustainability Report showcases the strides we continue making to strengthen our duty as a responsible business, and it highlights our legacy of

manufacturing safe, high-quality components and our position as an industry leader in new nuclear advances in clean, secure energy, nuclear medicine and environmental management."

This year's report may be viewed and downloaded here.

About BWXT

At BWX Technologies, Inc. (NYSE: BWXT), we are People Strong, Innovation Driven. Headquartered in Lynchburg, Virginia, BWXT is a Defense News Top 100 manufacturing and engineering innovator that provides safe and effective nuclear solutions for global security, clean energy, environmental restoration, nuclear medicine and space exploration. With approximately 7.800 employees, BWXT has 14 major operating sites in the U.S., Canada and the U.K. In addition, BWXT joint ventures provide management and operations at a dozen U.S. Department of Energy and NASA facilities. For more information, visit www.bwxt.com. Follow us on LinkedIn, X, Facebook and Instagram.



BWX

SUSTAINABILITY

REPORT

CNTA and SRNS Celebrate their Partnership at this year's Membership Appreciation Night

Submitted by Savannah River Nuclear Solutions

Savannah River Nuclear Solutions (SRNS) recently donated \$35,000 to Citizens for Nuclear Technology Awareness (CNTA) during the nonprofit's 12th annual Membership Appreciation Night.

Over the years, SRNS has partnered with and donated a total of \$536,300 to CNTA, which is a non-profit organization unlike any other in the area. The organization's members are advocates of the Department of Energy's Savannah River Site (SRS), and nuclear technologies in general, providing objective information on the value of nuclear technology with respect to health, economy, the environment and national security. Resources are also allocated to education or topics related to the nuclear industry.



The CNTA Board includes 31 board members; seven of these are representatives of SRNS, including:

- Booboo Roberts, SRNS Regional Technical School Loaned Executive and the Deputy Program Manager of Apprenticeship & Pipeline Training Programs
- James Angelos, SRNS Senior Vice President NNSA Pu Programs
- Jesus Mancilla, SRNS Deputy Manager for K Area Complex Nuclear and Criticality Safety Engineering and CNTA Board of Directors Vice-Chair
- Lindsey MonBarren, SRNS Lead Communications Specialist for Environmental Management Operations, and CNTA
 Communications Committee Chair
- Natalia Johnson, SRNS Environmental Bioassay Laboratory Manager
- Nick Miller, SRNS Deputy Vice President of Environmental Management Operations
- Susie Ferrara, SRNS Cold War History Preservation Program Manager

"SRNS is an organization focused on integrity, teamwork, customer satisfaction, safety and security," said SRNS Community Relations Specialist Marth Ruthven "With emphasis on embracing change and investing in people, SRNS employees believe in the importance of giving back to their community. CNTA's mission and values align with those of SRNS, and we are proud to partner with such a long-standing community partner."

Savannah River Nuclear Solutions, a Fluor and HII partnership company, is responsible for the management and operations of the Department of Energy's Savannah River Site, located near Aiken, South Carolina.

Omega Partners with Clean UP Aiken

Submitted by Omega Technical Services

On Thursday, April 4, The Omega Technical Services Recruiting Team rolled up their sleeves and volunteered for Clean Up Aiken, a non-profit organization that promotes a "Stop Roadside Litter" awareness campaign. Over 1,300 individuals support this local initiative and Omega was proud to be part of this community wide effort. Jacquelyn Kane, Omega's Director of Talent Acquisition stated, "Contributing to our local community is not just a responsibility; it's an opportunity to foster unity, create positive change, and enrich the lives of those around us. Together, let's invest our time, resources, and energy into making our community a better place for where we work and live."

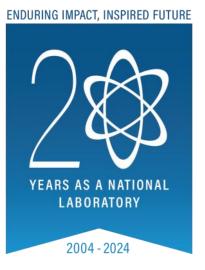


SRNL Celebrates 20th Anniversary of National Laboratory Designation

Submitted by Savannah River National Laboratory

This year is particularly special for Savannah River National Laboratory (SRNL) as it marks the 20th anniversary of its designation as a U.S. Department of Energy (DOE) national lab. SRNL is the newest of the nation's 17 DOE national laboratories, but its legacy began with the construction of the Savannah River Site (SRS) in the early 1950s.

The lab provided critical scientific development throughout the Cold War for producing materials needed for national defense and the nation's nuclear stockpile. When the Cold War ended in the late 1980s, the focus at SRS shifted from materials production to environmental remediation. Savannah River Laboratory (SRL) -- as it was known then and until 1992 when the name changed to Savannah River Technology Center (SRTC) -- subsequently made innovative advancements in the cleanup of the hazardous and radioactive materials at SRS.



Former Secretary of Energy Spencer Abraham signed the proclamation that designated SRTC as a Department of Energy national laboratory on May 7, 2004, and with that proclamation came the name Savannah River National Laboratory. The designation was a timely one, given SRNL's expertise and influence were now global, extending well-beyond the Savannah River Site. Moreover, SRNL's capabilities were no longer limited to an environmental management mission. SRNL evolved into a premier, multidisciplinary science laboratory, providing applied technology solutions for the nation's most complex challenges in three primary mission areas: environmental and legacy management, national/global security, and weapons production technology.

SRNL puts science to work every day. It's commitment to a healthy planet drives SRNL's exploration into novel, cost-effective approaches to environmental stewardship. Additionally, SRNL's work in weapons production technology, nuclear nonproliferation and global security serves the national defense and helps ensure the nation's security. Furthermore, SRNL is at the forefront of basic science and carbon-free energy production research,

including expertise in nuclear fusion -- an environmentally friendly energy source.

Always at its core, is the growing, diverse team of people propelling SRNL's research beyond the horizon. Come celebrate SRNL's 20th anniversary and meet the people behind the science at "Meet SRNL Day" at Highfields Event Center, Aiken, South Carolina., Saturday, May 18, from 4-8 p.m. There will be several food trucks, live music, and fun activities for kids. The event is free and open to the public. Hope to see you there!



CNTAware

Updates from the Savannah River Site Museum

Submitted by Savannah River Site Museum

On any given Saturday, a casual observer at the Savannah River Site Museum (SRSM) will see groups of visitors exploring exhibits with docents answering questions and providing guided tours. One Saturday a quarter however, the museum is overflowing with curious scouts ready to earn their Nuclear Science Merit Badge. The education team led by SRSM Education Specialist Kelly Galvarino, along with Jim Stafford, an Eagle Scout and Savannah River Site retiree and museum volunteer, guide the scouts through the process.

Since its beginnings in 2022, over 100 area scouts have participated in the SRSM Nuclear Science Merit Badge program. As one of the Georgia Carolina Council's most popular merit badge programs, most sessions require a wait list. Recent merit badge scouts have traveled from Atlanta, Georgia, and Salisbury, North Carolina, to attend the program.



Jim Stafford teaches scouts how to use a Geiger counter.

Program participants begin their day in the museum by receiving an official visitor's badge and lanyard. After a brief welcome, scouts learn about radiation by using Geiger counters with source materials, explore parts of an atom by making 3D models and build electroscopes and test them with static electricity. Scouts also learn about particle accelerators, virtually tour a nuclear energy plant, and demonstrate nuclear materials half-life using M&Ms. After discussing practical uses for nuclear science and playing a fast action fission game, students tour the museum and head home as official merit badge recipients.

One Council representative shared, "THANK YOU so much for all that you are doing for the boys and girls of scouting; they are learning a lot and you and everyone at the museum are making a <u>HUGE impact</u>. You are making a real difference for children in learning about Nuclear Science, an opportunity

they would not have otherwise had." Another parent acknowledged, "We are spreading the word about how informative the museum was. The exhibits showed us how so much growth stemmed from the SRS...you all did <u>a great job</u> giving the kids a friendly overview and getting them excited about potential careers in science."



A scout builds with Legos in a simulated glovebox.



The scouts use M&Ms to understand the concept of half-life.

Based on the success of the Boy Scout program, we are currently working on a STEM merit badge program for Girl Scouts in South Carolina and Georgia.

If you are interested in volunteering with this program or any other educational programming at the <u>SRS</u> Museum, please contact us via email at <u>srsmuseum@gmail.com</u> or call the museum at 803-648-1437. You can also find us online at SRSHeritageMuseum.org.

CNTA COMMITTEE DESCRIPTIONS

Detailed information on ALL of our committees available at: <u>https://cntaware.org/committees/</u>

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.

Thank You Business & Individual Members!

Fred Beranek

Henry Bolen

David Fauth

Gregory Farley

lack Goldenberg

Charles Hansen

Lyddie Hansen

Richard Izard

DIAMOND

SAVANNAH RIVER NUCLEAR SOLUTIONS

PLATINUM

SAVANNAH RIVER MISSION COMPLETION

GOLD

ARTHUR RICH BATTELLE SAVANNAH RIVER ALLIANCE CENTERRA-SRS FLUOR MISSION SOLUTIONS HII-NUCLEAR

SILVER

JACOBS

Champion Members

- Jeff Allender Kim Cauthen Paul Cloessner Paul Ebel
- Ben Kinlaw Jesus Mancilla Christopher Noah Jon Wickliffe

BOARD OF DIRECTORS

Chair- Forest Mahan Vice Chair- Jesus Mancilla Treasurer- Charles Hansen Past Chair- Steve Sheets

Jeff Allender

Jimmy Angelos Sally Bartelmo Dean Campbell Paul Cloessner Musa Danjaji Susie Ferrara Jhivaun Freeman-Pollard Michele Harmon Joyce Hopperton Fred Humes Natalia Johnson Scott Kirk Kenny Lee Joel Leopard Karl Lutterloh Scott McKay Nick Miller Lindsey Monbarren Charles Munns Aherial Polite Booboo Roberts Azi Samadi Daren Timmons John Veldman Tim Worrell

Executive Director- Allison Hamilton Molnar Nuclear Technology Advisor- James Marra

BRONZE

APPLIED RESEARCH CENTER ATKINS BECHTEL BWXT BURNS & McDONNELL MERRICK & COMPANY NORTH WIND GROUP SOUTHERN NUCLEAR-PLANT VOGTLE AvanTech Café Scientifique Carolina Burglar & Fire Edgewater Technical Associates Longenecker & Associates Munns Advisement Omega Technical Services Parvati Government Services Security Federal Bank SRS Museum SRSCRO UniTech Services Group Waseyabek Federal Services Western SC WesWorks

Advocate Members

Nathan Jones Emily Kirk Scott Kirk Jeff Leita Larry Ling Todd Lista Nick Miller Thomas Nance Jeremy O'Donnell

Sharon Rickman Wayne Rickman Kent Rosenberger Steve Sheetz Robert Sindelar Dale Sivils Tammy Taylor Brandon Thorne

MEMBERSHIP INFORMATION

BUSINESS MEMBERSHIP OPTIONS

Diamond: \$25,000 or more Platinum: \$10,000- \$24,999 Gold: \$5,000- \$9,999 Silver: \$2,500- \$4,999 Bronze: \$1,000- \$2,4999 Business Member: \$500- \$999

INDIVIDUAL MEMBERSHIP OPTIONS

Champion: \$500 or more Advocate: \$250.00 Benefactor: \$125.00 Patron: \$70.00 Supporter: \$35.00 Young Professionals (under 40), K-12 educators, & Students are Free!

Membership Information is available online at: <u>http://cntaware.org/join-us/</u>

All membership levels include invitations to events, newsletters and opinion letters/editorials. Member Perks by level of support are detailed on the above webpage.

YOUR DUES SUPPORT PUBLIC OUTREACH

Federal ID# 57-0953103

Page 15

BUSINESS



Mission

Vision

Value

CNTA serves to educate the public by providing objective information on the value of nuclear technology with respect to our health, economy, environment, and national security. CNTA will become the recognized avenue for the collective engagement of its members in increasing the awareness and support of nuclear technology and its benefits to the public. Through inclusiveness and engagement, CNTA and its volunteers create a voice to provide the public with factual, objective information on nuclear subjects, while also providing opportunities for its members' personal and professional growth.

HOW YOU CAN HELP

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

Opportunities include:

- Donate Items for Raffles/Auctions
 - Donate to Our Community Gift Card Program!
 - Donate to CNTA as a charitable non-profit (<u>https://cntaware.org/about-us/</u>)
 - Volunteer your time

•

•

•

- Get involved with a CNTA Committee (committee information on page 14)
- Help the CNTA Education Committee revamp our educational outreach
- Help CNTA expand their reach on social media
- Volunteer to help in our Office (there is always work to be done there!)
- Be an event-specific volunteer
- Be an education committee contest judge or outreach volunteer
- Sponsor a 2024 Event or Education Outreach!

For information email us at office@cntaware.org

CNTA CALENDAR OF EVENTS

- May 4, 2024- DIG STEM Festival- I I am-5pm. Main Street in Williston SC. CNTA will have our education outreach materials for attendees to engage with.
- May 10, 2024- 22nd Annual CNTA Charity Golf Tournament at Houndslake Country Club.
- May 18, 2024- Family Earth & Sky Night. Ruth Patrick Science Education Center. 6-8:30pm.
- **June 5, 2024-** Up & Atom "NuWaDi Consortium & Consent Based Siting". 7:30am at Newberry Hall in Aiken.
- June 6, 2024- CNTA's Night at the Ballpark. Join CNTA members cheer on the Augusta Greenjackets! 7:05 game time. Tickets must be requested from CNTA by May 17th.
- July 17, 2024- Up & Atom "SRS Interns" 7:30am at Newberry Hall in Aiken SC.
- August 21, 2024- Up & Atom Sponsored by SRNS featuring Erika Baeza-Wisdom, Deputy VP, Pit Production Operations. 7:30am at Newberry Hall in Aiken SC.
- **September 18, 2024-** Up & Atom featuring Joe Miller, President of Advanced Technologies for BWXT. 7:30am at Newberry Hall in Aiken SC.
- **October 12, 2024-** 6th Annual Oyster Roast & Low Country Boil. Hosted by CNTA's Young Professionals Committee. 6:30pm at Palmetto Golf Club in Aiken SC.
- October 19, 2024- Fall Fission Festival. SRS Museum. Details TBA.
- October 21-25- Nuclear Science Week. Activities will be happening across the world & right in our own communities. Learn More at: <u>https://www.nuclearscienceweek.org/</u>
- October 26, 2024- SEED Stem Festival-10am-3pm. USC Aiken.

* Events in green are outreach events you will find CNTA volunteers at. Those in black are CNTA hosted events.

1204 Whiskey Rd, Suite B Aiken SC 29803

Phone: 803-649-3456 Emails: office@cntaware.org cnta@bellsouth.net

Visit Us At: www.cntaware.org On Social Media @cntaware

