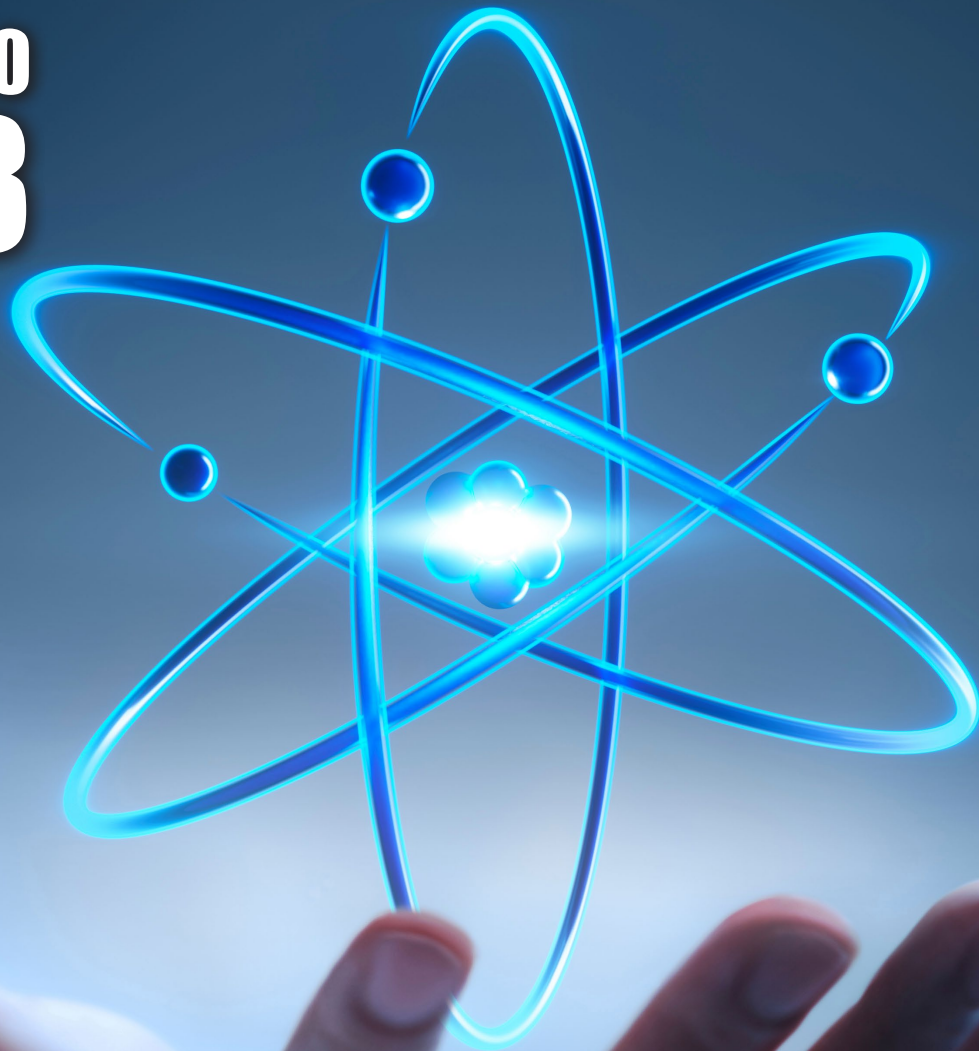


Nuclear Science Week

Oct. 16 - 20
2023



CNTA

*Citizens for Nuclear
Technology Awareness*

**An advertising partnership publication
between CNTA and the Aiken Standard**



America's only four-unit nuclear site — a generational impact in Georgia

History is in the making with Georgia Power's Vogtle expansion project. Located near Waynesboro, Ga., just south of Augusta, Vogtle units 3 and 4 are inching closer to commercial operation representing a historical expansion for the state, the industry and the world. As the first new nuclear units in the United States in 30 years, this project expands the existing operational nuclear units, Vogtle 1 and 2, which have safely and reliably produced power in Georgia for more than 35 years. But what may surprise some are all the added benefits the new units will bring. Once running, Vogtle units 3 and 4 will produce zero emissions, and will be an

essential part of Georgia Power's commitment to delivering clean, safe, reliable and affordable energy to its 2.7 million customers. Southern Nuclear will operate the new units on behalf of the co-owners: Georgia Power, Oglethorpe Power, MEAG Power and Dalton Utilities.

Nuclear energy is by far the largest clean-air energy source, and it's the only one that can produce large amounts of electricity around the clock. According to the Nuclear Energy Institute (NEI), nuclear power accounts for more than 50% of all U.S. generating capacity that emits no greenhouse gases. In fact, in 2022

alone, nuclear power generation allowed the state of Georgia to avoid more than 19.1 million metric tons of carbon emissions and accounted for almost 80% of all carbon-free energy production within the state. Once operational, Vogtle units 3 and 4 will cut annual carbon emissions by the equivalent of taking 3.5 million cars off the road. Even when carbon dioxide emissions are evaluated on a total life-cycle basis, nuclear energy is comparable to renewable energy sources such as solar, wind and hydropower making it an essential part of our generation portfolio.

A question often asked is – why not use all

renewable energy or all nuclear? Instead of an “us vs. them” mentality, Georgia Power is focused on deploying multiple sources of clean energy such as carbon-free nuclear, wind and solar that all complement one another and reliably and sustainably provide power to its customers. A variety of fuels for power generation creates a more reliable electric grid to ensure our lights stay on.

Once units 3 and 4 are operational, the Vogtle site, combined with units 1 and 2 will be the only four-unit nuclear power station in the U.S. providing millions of Georgia residents with clean, safe, reliable and affordable energy for decades to come.

THERE IS **POWER** IN **STEM** EDUCATION! Scholarships are available.



Learn more at atc.edu/WORC.



AIKEN
TECHNICAL COLLEGE



W·O·R·C
WORKFORCE OPPORTUNITIES
IN REGIONAL CAREERS

Aiken Technical College is an equal educational opportunity institution and does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities.

Spent nuclear fuel dispositioning at SRS: Meeting a need for our nation

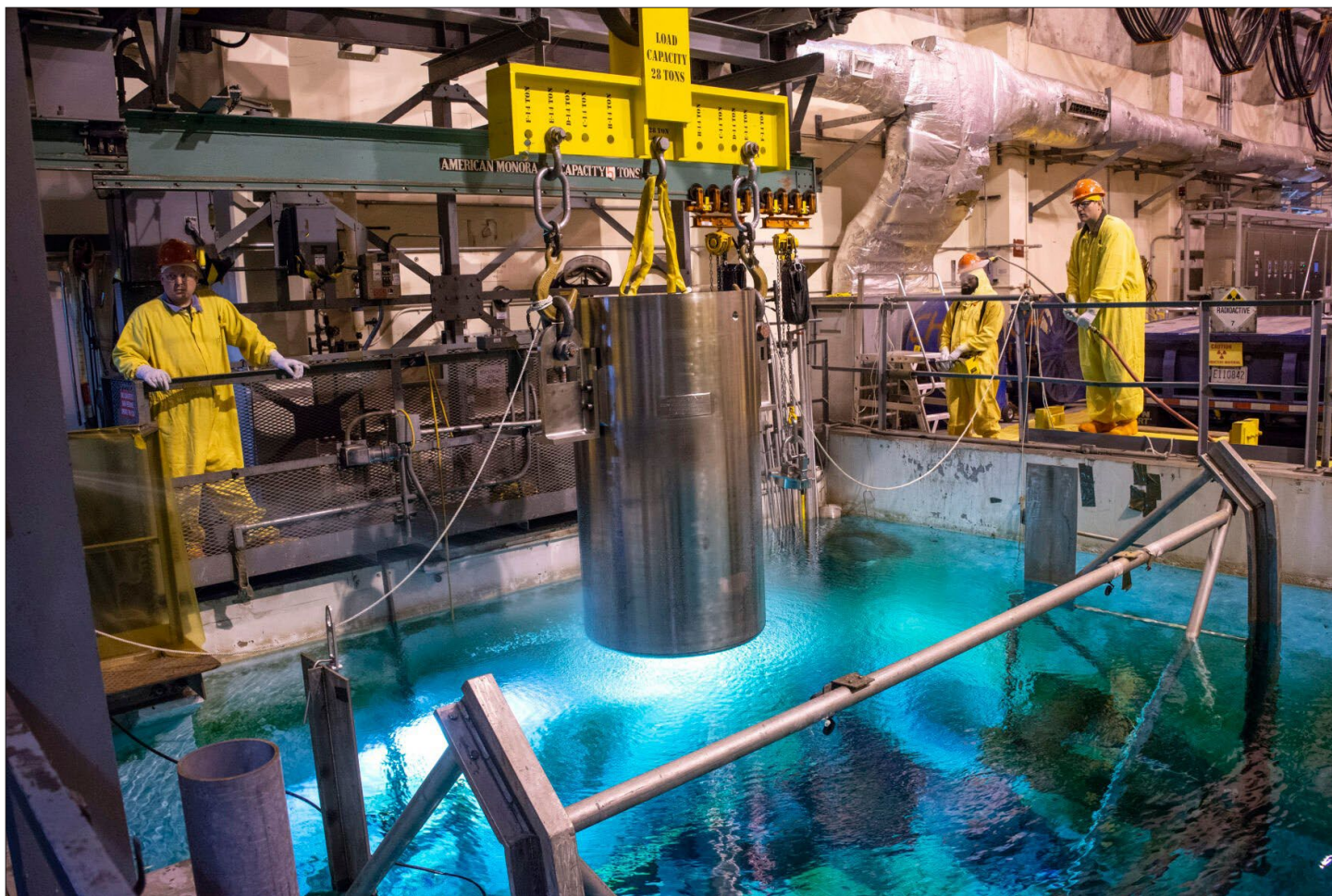
Since the end of the Cold War, the Savannah River Site has been dispositioning spent nuclear fuel and other special nuclear materials in a safe, secure manner. Although the method of disposition has changed, the overall mission is the same – ensure spent nuclear fuel is kept out of the hands of terrorists and is disposed of in a way that does not harm human health or the environment.

“SNF refers to nuclear fuel that has been used in a reactor,” said SRNS L Area Facility Manager Neil McIntosh. “The spent fuel comes to SRS from foreign and domestic nuclear reactors that are used for research and to make isotopes for nuclear medicine and industrial purposes.” Since 1964, SRS has received more than 2,509 shipping casks containing over 48,219 SNF assemblies.

When fuel arrives at SRS, it is unloaded into the L Area Disassembly Basin (L Basin), which is run and staffed by the Site’s managing and operating contractor Savannah River Nuclear Solutions. L Basin is an underwater storage facility that has concrete walls two-and-a-half to seven-feet thick. The basin holds approximately 3.4 million gallons of water with pool depths of 17 to 30 feet. All spent fuel assemblies have low enough radioactivity, or are “cool” enough, to be safely stored without an active basin water cooling system; the purpose of the basin water is to provide shielding to protect workers from radiation.

SNF is stored in L Basin until it is ready for processing in H Canyon. H Canyon is the only operating, production-scale, radiologically shielded chemical separations facility in the United States. When SNF bundles arrive at the canyon, they are unloaded and then loaded into a dissolver using remotely controlled cranes. The dissolver uses nitric acid to dissolve the aluminum-clad uranium in the fuel bundles. Then, the dissolved material is sent to the liquid waste program to be eventually vitrified into glass. Called Accelerated Basin De-inventory (ABD), this approach at fuel disposition is the current H Canyon mission being executed to de-inventory the spent nuclear fuel in L Basin.

“ABD address the disposition of aluminum-clad fuel, which makes up most, but



SUBMITTED PHOTO

A spent nuclear fuel receipt in SRS’s L Basin.

not all, of the fuel that comes to the Site,” said SRNS H Canyon Facility Manager Matt Arnold. “The aluminum clad fuel can be dissolved and disposed of using the dissolver and processes already in place in the canyon. However, there is some material stored in the basin that is clad in other materials, including stainless steel. A different approach is required to dissolve this fuel.”

H Canyon has recently begun the installation of a new dissolver, called an electrolytic dissolver, that adds electricity to the nitric acid dissolving process and is capable of dissolving stainless steel fuel bundles. This mission began specifically to dissolve stainless steel-clad fuel from Japan’s Fast

Critical Assembly (FCA) research reactor; however, once that mission is complete, the electrolytic dissolver will be used to disposition other stainless steel-clad fuel currently stored in L Basin.

“With the ABD and FCA missions, we are moving ever closer to our mission of reducing, to the maximum extent possible, the material stored in L Basin,” said Arnold. “This reduces the cost of managing that material and provides L Basin storage space to support other DOE programs.”

SRNS Past President and CEO Stuart MacVean said “Helping safely support the back-end fuel cycle of SNF management from various reactor sources is vital to the

country, as the operation of these reactors is critical to helping fulfill many real-world needs.” An example of this is SRS’ partnership with the High Flux Isotope reactor in Oak Ridge, Tennessee. This reactor is used to perform research in cutting edge renewable energy technologies, battery designs, security threat detectors, space exploration, and advanced materials to help reduce costs in dentistry.

“SRS has long been in the business of dispositioning spent nuclear fuel,” said MacVean. “Our employees have the tools, the knowledge, and the experience to continue doing so as long as there is a need for our nation.”

SRNL offers challenging career paths putting science to work



SUBMITTED PHOTO

SRNL Dwight D. Eisenhower Postdoctoral Research Fellow Jonathon Baker.

Savannah River National Laboratory is a mainstay in the Central Savannah River Area and proud to be part of the Greater Aiken community. Since starting operations in the 1950s during the Cold War, SRNL has built its reputation in environmental and legacy management, national security, and weapons technology – earning the designation of a national laboratory in 2004. SRNL is one of 17 national labs within the U.S. Department of Energy network.

Next year marks SRNL's 20th anniversary as a national lab. We look forward to celebrating our people as well as key milestones in science and technology achieved during the past two decades and throughout our nearly 70 years of history.

Now is a great time to consider a career at SRNL. As we expand our workforce, many challenging opportunities exist for those who want to join an organization that is proud of its mission to help keep our nation safe and secure.

Career areas of focus at SRNL include materials science, computer science, computer engineering, chemistry, physics, biology, microbiology, mechanical engineering, chemical engineering, nuclear engineer-

ing, electrical engineering, cybersecurity and nuclear nonproliferation.

Postdoctoral researchers are supported by SRNL's Laboratory Directed Research and Development (LDRD) program, strengthening our future workforce pipeline. Our postdoctoral researchers apply their scientific skillsets to solve complex technical challenges, develop their professional research skills and build their scientific reputations through publication of their research findings.

Postdoctoral researchers are directly hired into SRNL and through named postdoctoral positions, specifically the Laboratory Director's Postdoctoral Research Fellow and the distinguished Dwight D. Eisenhower Postdoctoral Research Fellow.

"The Eisenhower fellow should be an expert in their field, dynamic and engaged with their lab community, and ready and willing to offer their expertise and leadership where needed," said Dwight D. Eisenhower Postdoctoral Research Fellow Jonathon Baker. "The research I am conducting will be used to engineer lighter and better radiation detectors to keep our emergency responders, soldiers and country safer."

We understand that the decision to work at SRNL is not just about your career. It is also about quality of life. Our core values of integrity, innovation, service and teamwork, together with a competitive benefits package and central geographic location, provide everything you and your family will want. Flexibility is the key to establishing a work-life balance. That is why SRNL offers a variety of work schedules and generous time off. Most employees, based upon where they choose to live, commute less than 30 miles to work each day along traffic-free routes.

SRNL provides online resources, onsite and facilitated classroom training and access to industry-provided developmental opportunities for continued professional development. Whether a research symposium or lunch and learn, we have something to suit everyone, and our managers can work with you to develop a career plan where you steward your own growth as a professional.

Learn more about careers at SRNL by contacting SRNLrecruiting@srnl.doe.gov with any questions about SRNL or our hiring process, and visit the careers page of our website.



Applied Research Center

ARC is leading the way in the advancement of Porous Wall Hollow Glass Micro-spheres in medical and anti-counterfeiting research. Through partnerships with leading universities throughout the nation, ARC is preparing the technology for commercial application.

Leading the way in world-changing research

Applied Research Center is home to leading scientists and researchers who are expanding the limits of hydrogen, microwave energy, glass and ceramics.



Visit discoverARC.com to learn more | PO Box 462 | Aiken, SC 29802

Technology, innovation coming together to complete the SRS liquid waste mission

Savannah River Mission Completion's vision at the Savannah River Site is to remove, treat, and dispose of radioactive liquid waste and operationally close waste tanks.

SRMC is the SRS Liquid Waste contractor for the U.S. Department of Energy. The contract began Feb. 27, 2022.



Where Did This Waste Come From?

The radioactive liquid waste stored at SRS is the byproduct from production of special nuclear material in support of Cold War-era nuclear weapons, the National Aeronautics and Space Administration program, and scientific experimentation.

During the history of the site, 51 waste tanks were constructed to hold this liquid waste. These waste tanks have the capacity to hold approximately 1 million gallons of waste each.

The high-level waste contained in these tanks includes insoluble solids forming "sludge." Liquid above the sludge, referred to as salt waste, is concentrated by evaporation to reduce its volume. As the concentrated salt waste cools, a portion crystallizes, forming a solid "saltcake." This concentration process not only reduces the volume, but also makes the waste less mobile.

Today, approximately 34 million gallons of liquid waste is stored in 43 operational underground tanks located in two separate tank farms at SRS. Eight of these waste tanks have been removed from service, cleaned, and filled with a concrete-like grout.

To accomplish the cleanup vision, SRMC will rely on its team to utilize technology and innovation to optimize facilities, process higher counts of radioactivity, and deliver on its federal- and state-regulated milestones.

System Optimizations Inside Facilities

SRMC is improving and optimizing the systems inside the two key facilities that are processing the SRS tank waste: the Salt Waste Processing Facility, which began treating the salt waste in October 2020, and the Defense Waste Processing Facility, which has been treating the sludge waste since March 1996.

SWPF receives a salt stream from the tank farms and removes the highly radioactive elements. Those elements are transferred to DWPF, where that high-level waste is combined with other sludge waste that has been trans-

ferred to DWPF. The waste is then immobilized in molten glass that is poured into stainless-steel canisters and welded shut. The canisters will remain safely on-site in temporary storage until a federal repository is identified. After decontamination at SWPF, the salt waste stream is sent for processing at the Saltstone Production Facility, where it is mixed with dry materials to form a grout that is poured into above-ground Saltstone Disposal Units for safe, permanent storage at SRS.

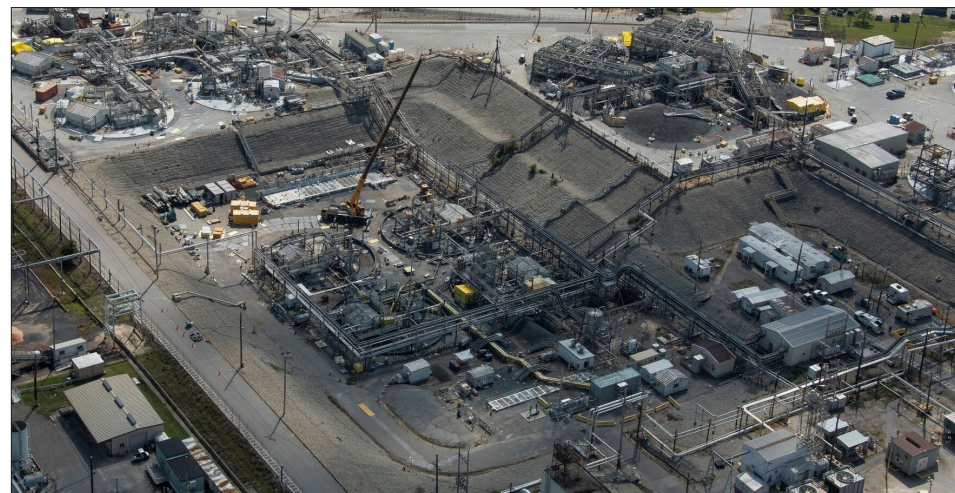
Earlier this year, teams at SWPF engineered modifications designed to optimize the facility's performance. One such improvement involves the installation of a direct-flushing system to remove undissolved materials that accumulate on an important piece of the processing system, the Strip Effluent Coalescer. This new cleaning method allows removal of these materials without taking the entire facility offline, saving as much as 50 days a year for this necessary cleaning.

SRMC has also improved DWPF's capacity and reliability by replacing formic acid with glycolic acid. The process now allows for safer operations and higher production rates while maintaining chemical stability. Glycolic acid produces significantly less hydrogen and ammonia gases under extreme heat, making the workplace much safer for workers. The change also opens other opportunities for improvement that result in even higher production rates.

The increased production capability will help DWPF keep pace with SWPF, which is processing greater volumes of waste than ever before. In less than three years of operation, SWPF has processed nearly six million gallons of salt waste.

High-Curie Processing

SRMC's vision is in place to achieve the mission of safely reducing the risk of the radioactive liquid waste to the community and the environment. To do that, the company is aggressively removing curies – a measurement of the radioactive intensity of the waste – first from the tanks that pose the highest risk to the environment: the ones built within the water table. SRMC is



SUBMITTED PHOTO

Savannah River Mission Completion is prioritizing accelerated waste removal activities Tanks 9, 10 and 11 at the Savannah River Site's H Tank Farm.



SUBMITTED PHOTO

The Salt Waste Processing Facility uses a two-step decontamination process to separate and remove the highly radioactive waste from the less radioactive salt waste at the Savannah River Site.

prioritizing accelerated waste removal activities – through installation of new pumps and other infrastructure – in these tanks to support the overall risk reduction strategy.

Further, SRMC is maximizing the number of curies (especially long-lived radionuclides) that DWPF vitrifies inside each canister.

Accelerated High-Level Waste Tank Milestone Agreement

To pursue the higher-curie processing strategy at SRS, DOE-SR and state and federal regulators reviewed, negotiated, and agreed

upon revisions to the SRS Federal Facility Agreement. The FFA establishes procedural framework and directs comprehensive remediation at SRS, including high-level waste tank milestone agreements and other site cleanup priorities.

The revision to the FFA outlines the schedule for the waste removal and operational closure of the 16 oldest-style tanks at SRS.

Revising the FFA and the waste tank milestone commitments ensures regulatory requirements align to allow DOE's liquid waste facilities to operate as efficiently and effectively as possible.



To safely reduce the risk to the community and the environment of radioactive liquid waste stored in aging waste tanks

Our Mission



Salt Waste Processing Facility

Saltstone Production Facility

Tank Farms

Saltstone Disposal Units

Defense Waste Processing Facility



Check us out:



SRPPF: Fulfilling a mission of national importance

Every day brings fresh progress to the Savannah River Plutonium Processing Facility at the Savannah River Site. Following release of the 2018 Nuclear Posture Review, which stated that the U.S. Department of Defense requires no fewer than 80 plutonium pits per year to meet nuclear stockpile requirements, the pit production mission at SRS became an area of national focus. As the country developed strategies for manufacturing new pits at the rate needed to maintain the nation's nuclear deterrent, the National Nuclear Security Administration established a two-site approach for restoring plutonium pit production capabilities, which had largely ceased during the late 1980s. SRPPF will be required to produce a minimum of 50 war reserve pits per year, while the Los Alamos National Laboratory in New Mexico will be required to produce 30 war reserve pits per year. SRS is achieving its part of this objective by re-purposing an existing facility on site, allowing NNSA to make use of a seismically qualified production facility of about 400,000 square feet, with numerous supporting facilities, including office, assembly, and fabrication space. This also takes advantage of existing SRS services and infrastructure, such as electricity, water, sewer, security, fire protection, and emergency response. This strategy leverages the world-class SRS safety and security culture and the Site's proven track record of consistently meeting DOD's requirements and schedules. A vast, multidisciplinary project team is working to produce and deliver the design package for SRPPF. NNSA's management and operating partner at SRS, Savannah River Nuclear Solutions, provides Program Management Support and Project Integration for the team, which includes Los Alamos, Lawrence Livermore, Sandia, and Savannah River National Laboratories, along with two engineering companies: Fluor Corporation and Merrick and Company, operating under contract with SRNS. Fluor is designing the balance-of-plant systems for the production process, such as electrical, plumbing and ventilation, while Merrick is assisting with the design of the plutonium confinement systems, or gloveboxes – a service they have previously provided for LANL. These gloveboxes will be a critical component of the plutonium production process, as they provide a protective environment for transmitting materials, tools, and waste. Progress on the gloveboxes continues, as the first Request for Proposals were issued to potential suppliers in May 2023, preparing for future fabrication. In January 2023, the SRPPF construction project achieved a new milestone, as the dismantlement and removal



SUBMITTED PHOTO

Aerial view of SRPPF and supporting facilities in F Area

(D&R) phase began, marking the first “hands on” work using construction and craft employees hired through local trade unions. During this phase, crews are actively working to safely dismantle and remove commodities from the structure without damaging the configuration of items projected for reuse. As of now, removal work is approximately 60% complete with over 2,000 gross tons (4.5 million pounds) of materials transported offsite for recycling. Dedicated crews are working to remove coatings and install temporary HVAC and communications systems, preparing the building for construction. SRNS has also established the Savannah River Plutonium (Pu) Modernization Program to lead the commissioning and operating of the facility and to develop and train a workforce that will support the enduring plutonium pit mission. It is expected that SRPPF will require more than 1,900 highly skilled personnel to perform machining, welding, testing, and inspection of the final product. Several unique skills sets will be needed to supplement the SRPPF workforce, including areas such as metrology, high precision machining, cy-

bersecurity, and specialized nuclear skills. SRS is engaging with local middle and high schools and community organizations, as well as local and regional technical schools and universities, including Historically Black Colleges and Universities (HBCUs), to expand training programs, internships, and apprenticeship opportunities. Targeted recruitment campaigns have been deployed to attract veterans, along with IT, Engineering, and Project Controls personnel. “We are committed to recruiting and retaining an innovative, talented and diverse workforce to support the Site’s critical SRPPF/Pu Programs mission, which is a national security priority,” said Angela Martin, HR Manager for NNSA Capital Projects. “Our recruitment efforts range from a new billboard campaign, targeted social media efforts and increased presence at career and recruitment events. In addition, we are constantly pursuing creative strategies to enhance employee engagement, such as rewards and recognition programs, so that our employees have a workplace culture where they feel valued and included.” To further support and develop the skill sets of

those hired to operate the facility, an on-site High-Fidelity Training and Operations Center (HFTOC) is being established to accelerate the workforce development pipeline. While production facility construction work continues, the HFTOC will be used to train personnel and develop operator proficiency. Additional training programs include a Knowledge Transfer Program and Mutual Support Program, which were developed in partnership with LANL to share knowledge and lessons learned between the two sites, as they both work to further their shared mission. “SRS remains committed to supporting the nation’s strategic defense by modernizing the nuclear weapons stockpile and producing the plutonium pits needed to keep our country safe through sustainable nuclear deterrence,” said James Angelos, Senior Vice President NNSA Plutonium Programs and Operations. Upon completion, the plutonium pit production mission and SRPPF facility will make use of the skills, expertise, and experience that have allowed SRS to continue its enduring mission of serving the U.S. nuclear deterrent, just as it has for nearly 75 years.

Building bright careers with 'WORC'

Macy Peyton was not really thinking of a career in the nuclear industry at the start of college. Like many students, she had other ideas at first. Then, a WORC scholarship at Augusta University helped open the door to new opportunities.



Peyton

Macy was selected as a WORC scholarship recipient in Augusta University's Nuclear Science Track Program for Chemistry and Physics students. The scholarship helped lead her on a path toward a Savannah River National Laboratory internship, and by February 2023, she was in Phoenix, Arizona at the international Waste Management Symposia presenting her research. At the Symposia, she was also named an undergraduate recipient of the prestigious Roy G. Post Scholarship, an award that is well-recognized by the Department of Energy.

Macy is now part of the growing population of well-educated, skilled workers that are finding pathways to bright Savannah River Site careers because of the WORC Program. She continues working with SRNL, along with many other local WORC scholarship recipients.

WORC stands for Workforce Opportunities in Regional Careers. The program was envisioned by the non-profit Savannah River Site Community Reuse Organization to help local citizens develop skills for local careers.

Since 2016, \$15M has been awarded to the SRSCRO by the Department of Energy Environmental Management and National Nuclear Security Administration for workforce development near SRS. The grants are serving local communities through WORC partners including Aiken Technical College, Augusta Technical College, Augusta University, Claflin University, University of South Carolina Aiken and University of South Carolina Salkehatchie.

WORC funds provide support for local South Carolina and Georgia students training for:

- Industrial, Electrical, Mechanical, Machining, Chemical, Welding and Computer Technology
 - Radiation Protection Technology and Nuclear Engineering Technology
 - Process Engineering and Computer Science
 - Environmental Remediation & Restoration Research
 - Chemistry and Physics with a concentration in Nuclear Science
 - SRS Apprenticeship Programs for operators
- Yet, scholarships are only one part of the broad program. Funds from WORC provide:
- Academic Scholarships for certificate/degree programs aligned with mission-related workforce needs



- Success Coaching for advanced training programs through specialized instructional support
- Marketing and Recruitment to promote certificate/degree programs
- Equipment and Supplies to engage students in research using equipment like that at SRS
- STEM Outreach to expand K-12 science and technology education, particularly in rural communities
- Work Experiences through student research, employer internships, apprenticeships

Most recently, WORC funding is also helping high school students learn about science, technology, engineering and math (STEM) careers through Discovery Camps at Ruth Patrick Science Education Center in coordination with the SRS Museum.

Through the popular STEM Forward Camp, now in its second year, students have explored local career opportunities with the help of local experts. They discovered robotics and how robots are used at SRS from a robotics engineer, and they traveled to the SRS Museum to learn about the rich STEM history and careers of the SRS community. Students visited the Savannah River Ecology Laboratory to meet with a wildlife biologist and experienced flying a drone with the help of a drone pilot.

Real People, Real Jobs, Real Impacts

The WORC grants are helping real people, like Macy, move into real jobs. In just seven years, WORC funding is having a real impact for the local community:

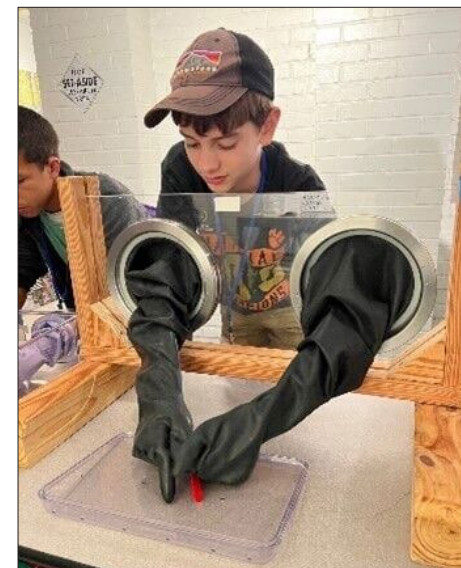
- 2,216 scholarships (on semester basis) awarded in 36 relevant education and training programs
- 738 students have received scholarships ranging from \$500 to \$5,000 per student
- 75% of scholarships awarded to minority and non-traditional students
- 378+ students selected for internships at SRS from local college programs
- 225+ WORC program students hired in full-time positions at the Savannah River Site
- 1,500 K-12 students have participated in high-quality STEM experiential learning

As competition continues to grow for a talented workforce, the future is bright for students in the region surrounding SRS. Learn more about WORC at www.srscro.org.



SUBMITTED PHOTO

Students explore career opportunities with local experts through the STEM Forward Camp, part of the Ruth Patrick Science Education Center's Discovery Camps in coordination with the SRS Museum.



SUBMITTED PHOTO

Students explore career opportunities with local experts through the STEM Forward Camp, part of the Ruth Patrick Science Education Center's Discovery Camps in coordination with the SRS Museum.



SUBMITTED PHOTO

Students explore career opportunities with local experts through the STEM Forward Camp, part of the Ruth Patrick Science Education Center's Discovery Camps in coordination with the SRS Museum.

CNTA's mission, vision and values

Mission

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.

Vision

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.

Value

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.

CNTA committee descriptions

Join CNTA

Citizens for Nuclear Technology Awareness needs your help to continue to provide quality nuclear education to our region. There are many ways to contribute to CNTA, including joining as a member and volunteering on a committee or for a one-time event. If you are interested in joining us, email cnta@bell-south.net or visit cntaware.org for more information.

Communications Committee

The Communications Committee is responsible for providing accurate and timely information to the media, stakeholders and the public that reflect the goals and objectives of CNTA. They write all CNTA press releases and publish the Nuclear Science Week Insert in the Aiken Standard every year.

Speaker's Bureau

The Speaker's Bureau identifies experts on topics in nuclear technology to deliver presentations to groups, clubs and organizations that request speakers on such topics.

Please see **COMMITTEE**, page 13S

CNTA's 2023 Board of Directors

Steve Sheetz, chair

Stephen O. Sheetz is a mechanical engineer who is now providing consulting services on tritium and pit programs for the Savannah River National Laboratory.

Dr. Forest Mahan, vice-chair

Dr. Forest Mahan is currently the fifth president of Aiken Technical College.

Charlie Hansen, treasurer

Charlie Hansen is a retired contractor and federal senior executive who served for 46 years in the Naval Nuclear Propulsion Program, commercial nuclear power generation and in U.S. Department of Energy waste management programs.

Dr. Jeff Allender

Jeffrey S. Allender is an Advisory Scientist and Program Manager at Savannah River National Laboratory.

Jimmy Angelos

James G. Angelos is Senior Vice President of National Nuclear Security Administration Plutonium (Pu) Programs and Operations for Savannah River Nuclear Solutions. He is responsible for establishing the enduring Pu pit production program and future operations organization.

Sally Bartelmo

Sally Bartelmo is a Shift Operations Manager in the Saltstone Facility for Savannah River Mission Completion.

Dean Campbell

Dean Campbell is the Manager of Media and Project Communications for Savannah River Mission Completion, the liquid waste contractor at the Savannah River Site.

Wyatt Clark

Wyatt Clark is the Chief Operations Officer for Savannah River Mission Completion at the Savannah River Site.

Dr. Paul Cloessner

Paul Cloessner is the Vice President, National Nuclear Security Administration Chief Business Officer for SRNS.

Dr. Musa Danjaji

Musa Danjaji is a full professor of Nuclear Engineering at South Carolina State University.

Susie Ferrara

Susie Ferrara is the Cold War Historic

Preservation Program Manager for Savannah River Nuclear Solutions.

Jhivaun Freeman-Pollard

Jhivaun Freeman-Pollard is a Senior Director for Jacobs and is based out of Richland, Washington.

Michele Harmon

Michele Harmon is a Professor of Biology at the University of South Carolina Aiken and the Editor of the Journal of the South Carolina Academy of Science.

Joyce Hopperton

Joyce Hopperton is Director, Environment, Safety, Health, and Quality Assurance for Centerra-Savannah River Site.

Fred Humes

Fred Humes is the President/CEO of the Applied Research Center.

Natalia Johnson

Natalia Johnson serves as the Manager of the Environmental Bioassay Laboratory at SRNS.

J. Scott Kirk

Scott Kirk manages the Environmental Compliance and Waste Disposal Authorities Departments for Savannah River Mission Completion LLC.

Joel Leopard

Joel Leopard serves as a Communications Coordinator for Plant Vogtle.

Karl Lutterloh

Karl G. Lutterloh is Vice President and Trust Officer at Security Federal Bank.

Jesus "Zeus" Mancilla

Jesús "Zeus" Mancilla is the Deputy Manager, K Area Complex Nuclear and Criticality Safety Engineering at SRS.

Nick Miller

Nick Miller is the Deputy Vice President of Environmental Management Operations for Savannah River Nuclear Solutions, the managing and operating contractor at the Savannah River Site.

Lindsey MonBarren

Lindsey MonBarren is a Principal Communications Specialist for the Environmental Management Operations Department at Savannah River Nuclear Solutions.

Chuck Munns

Charles L. Munns is a member of the board for Orano Federal Services and is South Carolina's trustee to the Southern Association of Colleges and Schools.

Aherial Polite

Aherial Polite is the department chair of Chemistry, Physics, and Nuclear Science at Aiken Technical College.

BooBoo Roberts

BooBoo Roberts is SRNS's Regional Technical School Loaned Executive and the Deputy Program Manager of Apprenticeship & Pipeline Training Programs.

Azi Samadi

Azi Samadi is the Tank Farms Process Engineering Facility Support Manager for Savannah River Mission Completion at the Savannah River Site.

Dr. Daren Timmons

Dr. Daren Timmons is University of South Carolina- Aiken's Provost and Executive Vice Chancellor of Academic Affairs.

Dr. John Veldman

John Veldman retired as Associate Laboratory Director for National and Homeland Security at SRNL after 38 years of service.

Tim Worrell

Tim Worrell is the Quality Assurance Manager for Merrick.

Dr. James Marra, Nuclear Technical Advisor

Dr. James C. Marra is a veteran in the nuclear industry. He began his nuclear career at SRNL as a Senior Engineer and progressed to the level of Advisory Engineer. He also spent time as a Senior Scientist for the U.S. Department of Energy's Office of Environmental Management.

Dr. Allison Hamilton Molnar, Executive Director

Dr. Allison Hamilton Molnar has been involved with local governments and non-profit work since high school. At CNTA she organizes events, is the point of contact for members, provides payroll and accounting services and works behind the scenes so CNTA can function efficiently. She also currently serves as CNTA's webmaster.

Find A REWARDING CAREER in NUCLEAR

Nuclear Technology Supports

- ▶ Environmental Management
- ▶ Energy
- ▶ Food & Agriculture
- ▶ Manufacturing
- ▶ Medicine
- ▶ National Security
- ▶ Research & Development
- ▶ Space Exploration

Nuclear Career Options

- ▶ Administrative
- ▶ Chemists
- ▶ Engineers
- ▶ Maintenance Technicians
- ▶ Plant Operators
- ▶ Radiation Protection Technicians
- ▶ Software Developers
- ▶ Plus More ...

Educational Degree Options

- ▶ High School Diploma
- ▶ Technical College Training
- ▶ Military Training
- ▶ University/College Degree

Employability Skills Needed

- ▶ Creative Thinking
- ▶ Dependability
- ▶ Flexibility
- ▶ Motivation
- ▶ Teamwork
- ▶ Time Management

Why Choose Nuclear

- ▶ Great Salary
- ▶ Excellent Benefits
- ▶ Growing Workforce
- ▶ New Technologies
- ▶ Important Work
- ▶ Make a Difference

Programs Offered at SIX Area Educational Partners

- ▶ Aiken Technical College
- ▶ Augusta Technical College
- ▶ Augusta University
- ▶ Claflin University
- ▶ University of South Carolina Aiken
- ▶ University of South Carolina Salkehatchie

WORC Scholarship Opportunities

Workforce Opportunities in Regional Careers (WORC) scholarships are available, in varying amounts, at six area educational institutions. Scholarships focus on programs that align with long-term workforce needs that support Department of Energy's Office of Environmental Management and National Nuclear Security Administration nuclear missions.

CNTA announces 2024 Educator Grants Program

Area teachers have a chance to win up to \$500 for science-related grants from Citizens for Nuclear Technology Awareness.

CNTA's Educator Grants Program applications are open. K-12 teachers 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.

The grants can be used to fund a project in any area of science, technology, engineering, or math (STEM). 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.

"Teachers are critical to the success of the future of STEM, including nuclear," said Dr. Jim Marra, CNTA. "The interest to pursue important careers in the nuclear industry is often piqued in the classroom, and we want to give students the opportunity to become fascinated with the STEM field. This starts with equipping teachers with the right tools. Our Educator Grants will help fund STEM projects and supplies."

Teachers are encouraged to work with their colleagues on a cooperative project, as well as 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.

Grant proposal packages have been emailed to school administrators. Proposal packages are also available online at

cntaware.org/educator-grants-program..

Applications must be received by CNTA by close of business on January 31, 2024. Winners and non-winners will be notified before March 31, 2023.

For a complete list of rules and to receive an application, contact CNTA at CNTA@bellsouth.net or call 803-649-3456.

The CNTA Educator Grants Program is sponsored by American Nuclear Society-Savannah River, Huntington Ingalls Industries, Battelle Savannah River Alliance/Savannah River National Laboratory, and a private gift from anonymous donors.

CNTA accepting applications for 2024 high school essay contest

Local students have a chance to win up to \$1,000 in scholarships from Citizens for Nuclear Technology Awareness.

CNTA's High School Essay Contest applications are open. High school juniors and seniors in Aiken, Allendale, and Barnwell counties in South Carolina; or Burke, Columbia, and Richmond counties in Georgia are invited to submit essays. High school juniors and seniors of CNTA members, regardless of their county of enrollment, are also eligible.

Awardees will receive one of three prize

amounts, with \$1,000 going to the top essay.

The essay should be 1,000-1,500 words and discuss one of the following topics:

- As climate change continues to impact our lives, reducing greenhouse gas emissions is critical. Compare and contrast lifetime greenhouse gas emissions from nuclear power plants and other energy sources.
- Isotopes are commonly used for medical procedures and diagnostics. Choose at least 2 isotopes and discuss how they are sourced and used in medical applications.
- When people land on Mars, they will

need energy sources to survive. Discuss how nuclear technology can be used to get to and live on Mars.

"Successful essays require students to integrate science, technology, social understanding, and language arts," said Jim Marra, CNTA. "Researching a technical topic, relating the information to society, and effectively communicating the information are great skills for any high school student to practice and demonstrate. The CNTA Essay Contest provides an incentive for the development of written communication skills that are vital

to continued success in education and in the workforce."

The deadline to submit essays is Feb. 29, 2024. Contest winners will be recognized at the 2024 Annual Edward Teller Banquet and will be invited to attend a summer Up & Atom breakfast to be recognized.

The essay content flyer, rules, and entry form are available on CNTA's website at: <https://cntaware.org/high-school-essay-contest>. For additional information, contact Jim Marra at cnta@bellsouth.net, cnta@bellsouth.net or 803-649-3456.

Ten area high schoolers win scholarships from 2023 CNTA Essay Contest

Ten area high school students won scholarships resulting from their winning entries in the 2023 Citizens for Nuclear Technology Awareness High School Essay Contest. One student won \$1,000, two won \$750 apiece, and the remaining seven students won \$500 apiece.

The winners of the 17th annual writing contest are:

\$1,000 Winner

• **Kaeleigh Seigler**, Aiken Scholars Academy, for "Nuclear Technology in Medicine"

\$750 Winners

• **Alya Akhtar**, Lakeside High School, for "Nuclear Technology Revolutionizing Today and Tomorrow's Medicine"

• **Monica Burns**, Richmond County Technical Career Magnet School, for "Nuclear Technology in the Medical Industry"

\$500 Winners

• **Blaise Bell**, Richmond County Techni-

cal Career Magnet School, for "How Nuclear Technology has improved the Medical Field"

• **Paige Dayton**, South Carolina Governor's School, for "Nuclear Science in Medicine"

• **Treshon Hinkins**, Lucy C. Laney High School, for "Impact of Nuclear Technology on Medicine"

• **John Ledbetter**, South Aiken High School, for "Clean Energy Sources and Reduction of Greenhouse Gas Emissions"

• **Kaitlyn Redd**, Williston Elko High School, for "Nuclear Technology in the Medical Field"

• **Maria Reyes**, Mead Hall Episcopal School, for "Nuclear Medicine and How it Saves Lives"

• **Alan Sairany**, Greenbrier High School, for "The Impacts and Implications of Nuclear Energy on Emerging Technologies"

The goal of the CNTA Essay Contest is to increase high school student awareness of nuclear technologies and their impact

on society. Each student picked one of three topics for this year's contest:

• There are numerous applications of nuclear technology in the medical industry, such as radioisotopes for medical diagnostics or therapies. Some of these applications have been around for many years, and other innovations are being developed. Discuss at least two (2) uses of nuclear technology in medicine and their impact on the medical industry.

• There are many differences between the generation of greenhouse gases from various energy sources, such as wind, solar, and fossil fuels compared to nuclear energy. Discuss the differences in greenhouse gas generation between these sources and nuclear energy. Consider the "cradle-to-grave" cycle of each energy source.

• Nuclear technology is being used in emerging technologies, such as supporting habitation in space, and producing energy via small-modular reactors and

micro-reactors. Discuss the use of nuclear technology in emerging technologies and the potential impacts of these uses on society

"We were very impressed with the quality of the essays we received from all the students this year," said Dr. Marissa Reigel, Chair of the CNTA Committee. "It was exciting to see the breadth of information the students included in their essays."

The contest was open to high school juniors and seniors in Aiken, Allendale, and Barnwell counties in South Carolina and Burke, Columbia, and Richmond counties in Georgia; homeschool students; and students of CNTA member families. The winning students, their parents, and school representative will be honored guests and recognized at an upcoming CNTA event later this year.

Over the course of the Essay Contest program, CNTA has awarded over \$70,000 to deserving students.

CNTA's Mission is education

BY DR. JIM MARRA
Nuclear Technical Advisor

For over 30 years, CNTA has been serving the public. Founded in 1991, as a grass-roots organization, we remain the largest,



Marra

citizens-based nonprofit organization in the U.S. focused on nuclear education. Our members come from all walks of life but hold a common belief in the many values nuclear and science technology bring to our world.

CNTA replaces stereotypes and misconceptions with facts. We advocate for the advancement of nuclear missions in our region. We spread the truth about nuclear technology. We facilitate the discussion of safe and effective use of nuclear in energy, medicine and discovery.

We accomplish our mission through participation in public forums, presentations to community organizations, editorial opinion pieces and education outreach.

CNTA fulfills its education mission through a number of initiatives. These are outlined below.

Essay Contest

Each year, regional high school juniors and seniors (including home-schooled students)

are eligible to submit an essay entry on a list of pre-selected nuclear topics. Winners receive between \$500 and \$1,000 to further their education. Since the inception, CNTA has awarded over \$70,000 to the students across the Central Savannah River Area.

Robert Maher Memorial Scholarship

In concert with promoting student excellence in science and engineering fields related to nuclear enterprise, CNTA also administers the competition for the annual Robert Maher Memorial Scholarship. This corporately sponsored \$5,000 prize is awarded to a college junior or senior with a meritorious academic record. Candidate applications are solicited from all eligible colleges and universities within South Carolina and Georgia. Applicants must be majoring in a nuclear science field or one that is linked to nuclear science. To date, scholarships totaling over \$90,000 have been awarded.

Aiken Technical College Scholarship

To commemorate the 25th anniversary of CNTA, a scholarship was initiated to support an Aiken Technical College student

pursuing a career in nuclear technology. The \$1,000 scholarship is awarded annually to a student excelling in the program with a financial need.

Bringing Nuclear into the Classroom

CNTA volunteers provide presentations and demonstrations in classrooms throughout the region and state. Prior to the COVID-19 pandemic, CNTA conducted a "Nuclear Blitz," visiting all high school chemistry classes in Aiken County to provide an overview of nuclear fundamentals, applications of nuclear technology, and the myriad career opportunities in the nuclear sector. While we are not back to classroom participation at that level, CNTA did visit over a dozen schools in the 2022-2023 school year. Our volunteers are eager to get back into all area schools!

Up and Atom Breakfasts

CNTA holds Up and Atom breakfasts. The breakfasts feature speakers on nuclear-related topics of interest and provide an ideal opportunity for CNTA members and guests to network and stay current on key issues.

Lifelong Learning

In 2017, CNTA began teaching classes as part of the Lifelong Learning Academy at University of South Carolina Aiken. Now, every year, CNTA provides a class on a relevant nuclear topic. These range from overviews of nuclear missions at SRS, current national and international nuclear postures, and development of advanced nuclear technologies for the future.

Other Public Outreach

CNTA also helps to educate the public through factual public testimony at regional meetings, official hearings as well as through editorials and articles for local and regional publications. Often focused on a topic of national importance, some of these pieces have been published by national newspapers such as the Washington Post and the New York Times.

Despite our nation's, and the Southeast's, indisputable leadership in the area of nuclear science and technology, the need for thoughtful communication with and education of the public is as great today as it ever was and has become more multifaceted. To answer this call, CNTA will continue to grow and nurture its education outreach program. CNTA is committed to ensuring a clean, bright, safe nuclear future for us all.

CNTA awards 2023 Educator Grants

Citizens for Nuclear Technology Awareness recently awarded five grants to local teachers to help fund science-related curriculum in their classrooms.

The grants, each about \$500, 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 2023 grant winners are:

- Carrie Lucas, elementary special education, Warrenville Elementary School;
- Michalene Langford, elementary special education, Warrenville Elementary School;
- Jennifer Donaldson, elementary STEM, Richmond Hill K-8;
- Crystal McDowell, 10th -12th grade biology, Greenbriar High School; and
- Leslie Olig, media specialist, Euchee Creek Elementary School.

The teachers use the grant funds to purchase STEM kits such as Introducing Solar

Electricity to Special Education Students, Hands-On Coding Robots Challenges, and Implementation of Illuminating Cancer with Cancer Fighting Proteins.

In addition to CNTA, sponsors of the CNTA Educator Grants Program include American Nuclear Society Savannah River, Huntington Ingalls Industries, Battelle Savannah River Alliance/Savannah River National Laboratory, and private contributions. CNTA is honored to continue this important grant program to facilitate more local educational outreach by the organization, said Dr. Jim Marra, CNTA.

"These grant awards are part of our continued partnership with area educators to provide instruction in the areas of science and math," Marra said. "We hope students find these activities informative, interesting, and fun, and spark an interest in pursuing a future career in the STEM fields."

COMMITTEE

from 10S

Education Committee

The goal of the Education Committee is to educate the public on the benefits, uses and facts of nuclear technology through initiatives that include: "Bringing Nuclear into the Classroom;" Nuclear Blitz teach-ins; the Lifelong Learning Academy; and awarding scholarships and grants 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 funds to allow free memberships for those

under 40. They oversee the fall Oyster Roast fundraiser, which provides funds for these endeavors, and the Tap Into Nuclear series.

Membership Committee

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

Golf Committee

The Golf Committee is responsible for planning the annual Charity Golf Tournament, which includes soliciting sponsors and raffle items, marketing and managing concession sales. The tournament is held in May each year. The Annual CNTA Golf Tournament is the organization's largest fundraiser, raising an average \$20,000 annually. Volunteers are also needed at the tournament!

Savannah River Ecology Laboratory committed to research, education, outreach



SUBMITTED PHOTO

A young girl discovers the invertebrates which live in our local lakes and streams.



SUBMITTED PHOTO

A graduate student and other researchers from the Savannah River Ecology Laboratory release box turtles at the Savannah River Site.

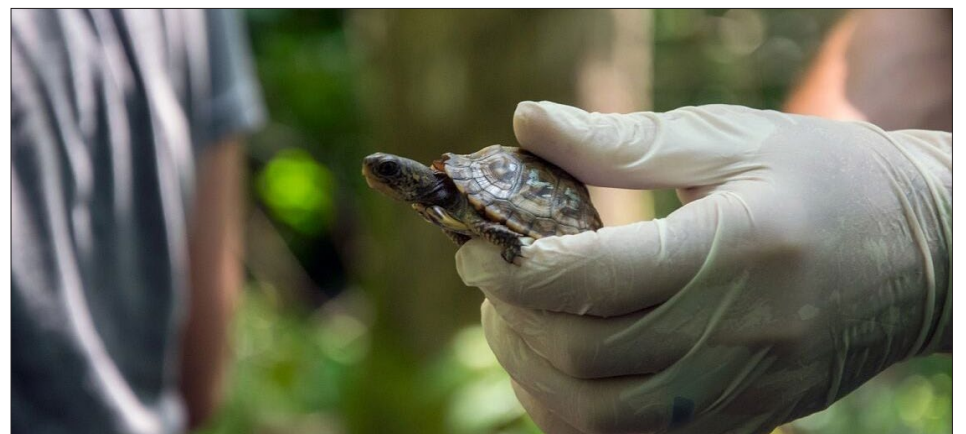
At the University of Georgia Savannah River Ecology Laboratory, we are committed to providing a legacy of service in the areas of research, education and outreach. Since before the founding of the Savannah River Site, SREL has been committed to providing an independent evaluation of the impact of SRS's operation on the environment to the public and the Department of Energy. SREL began at the bequest of the federal government inviting Eugene Odom, the father of modern ecology, and his students to complete a baseline survey of the plants that were growing in the 310-square mile sphere, which would become SRS. Through these beginnings, SREL has emerged to become a leader in the areas of radioecology, biogeochemistry, wildlife ecology, and many other environmental science disciplines.

As SREL continues to grow and expand, we are highly committed to our threefold mission of research, education and outreach. SREL consists of a staff of 17 faculty and researchers and many more graduate students and support staff, investigating areas such as human-vehicle conflict, heavy metals, wildlife ecology, environmental justice, remediation, environmental stewardship, the influence of contaminants on the ecosystems (ecotoxicology) and many other areas. During the past five years, researchers have released more than 150 articles on these topics. Since its founding, SREL has produced more than 3,700 articles. This information is further explored by our graduate and undergraduate students who study alongside our faculty and researchers in these emerging areas. These examinations have recently been employed in helping pro-

tect endangered and threatened species such as gopher tortoises and gopher frogs. Methods developed and engineered at the SREL in partnership with other organizations, are providing new ways at wildlife management technique and conservation efforts. This is merely one of many effects, which SREL has contributed to.

These breakthroughs and inquiries are communicated by a passionate team of outreach and communication staff who share this information with the general public and other stakeholders. The community can discover current research and general ecology topics through free hands-on field programs at the Savannah River Ecology Laboratory Conference Center where students can become an "Ecologist for a Day", outreach events such as the annual Science Saturday, and talks given to schools and community sites. On average, the outreach team reaches more than 60,000 people annually with in-person visits. The heritage of SREL continues to develop and blossom leaving a lasting bearing on future generations.

Olin "Gene" Rhodes, director of at the Savannah River Ecology Laboratory, states it best about the lab's dedication to the future. "SREL is committed to utilizing its unique set of scientific expertise and state of the art research facilities to provide educational opportunities to undergraduates and graduate students from our local communities, our region, and from across the globe," he said. "A large part of SREL's mission is to train future generations on how to conduct impactful and high-quality research for the benefit of our local communities, our nation, and our natural environment."



SUBMITTED PHOTO

A baby box turtle is prepared for release in a protected area on the Savannah River Site.

Limitless clean energy

BY DR. FRED BERANEK

Director of engineering and fusion program manager, Fluor Nuclear Power

The dream of limitless clean energy that can continuously supply power to electrical grids has always been just that... a dream. This dream is now getting much closer to reality with the recent scientific advances related to nuclear fusion energy. The same process that enables the sun and stars to emit enormous amounts of energy will soon be harnessed here on earth.

The fuel for the first fusion machines will consist of two different forms of hydrogen, both very familiar to Savannah River Site veterans. Deuterium, which was extracted from the Savannah River for decades to provide primary cooling for the SRS reactors, is one form; and tritium, which was produced in the SRS reactors for 50 years is the other form. When those two fuels react with each other, large amounts of energy are released which can be turned into electricity.

Creating a fusion reaction of deuterium with tritium is relatively straight forward and has been done for decades to generate high energy neutrons for medical treatments or irradiation studies of various materials. But these fusion reactions generate far less energy than is consumed in creating the reaction, so these are of little value if the goal is net energy production.

The goal of international fusion experiments over the past 50 years has been to produce more energy from fusion reactions than is used to make the reactions occur...thus generating net energy that can be converted into electricity. A variety of techniques are being explored to squeeze the fuel together and heat it up to very high temperatures to increase the rate of the fusion reactions. When the fuel has been squeezed and heated enough to produce significant energy, some of that energy will continue to heat the fuel to sustain fusion reactions such that the external source of heating can be turned off and the fuel will continue to burn. Energy not used to heat the fuel will be extracted to produce electrical power.

Two primary techniques have been explored to squeeze and heat. Most of the research uses a donut shaped vacuum chamber that contains the fuel. This chamber is surrounded by very powerful magnets that produce magnetic fields that maintain the fuel in the center portion of the chamber. An energy source from outside the chamber is applied to heat up the fuel and the magnetic fields keep the fuel away from the chamber wall (which would instantly cool the fuel). The squeezing by the magnets and heating by the external source results in a high rate of fusion reactions.

The second technique being studied involves instantaneously compressing a small, microsphere (about 1mm diameter) of fuel. The most common method being used to squeeze the microsphere is by aiming powerful lasers at the pellet. The fuel is heated (in 10 billionths of a second) to very high temperatures (hotter than the center of the sun) and very high densities (100 times the density of lead). These conditions will generate net energy and will need to be repeated about 10 times a second to support a fusion power plant. The shot heard "round the world" on Dec. 5, 2022 was an example of this fusion method demonstrated at the National Ignition Facility (NIF) in Livermore, California. In this test, 2 units of energy were applied to the fuel pellet and 3 units of energy were emitted...the first time ever more energy was produced from fusion reactions than was applied to the fuel. This breakthrough gives hope that electricity produced by fusion energy is closer than people may think.

There are over 30 companies trying to chase the "holy grail" of energy production. Each has their own unique design or idea; some small, some large; some closer to scientific breakeven than others. Several companies are proposing fuels other than deuterium and tritium. Each design and fuel type have their own advantages and disadvantages, but all still have significant engineering barriers that must be overcome. The NIF demonstration last year equates to the Wright Brothers first flight...it was many years after that flight when commercial aviation was born. So it is with fusion right now. The expectation is that several fusion pilot plants will be designed and constructed by the end of this decade with commercialization in the 2030s. The Savannah River Site would be an ideal location for pilot plants to be built.

The benefits are too large to ignore: Limitless fuel (deuterium comes from the waters of the world and the tritium is produced in the fusion plant while it is running); no high level, long-lived nuclear waste (the product of the reaction is helium); and no hot mass of fuel that must be cooled even after the plant is shut-down (as with current nuclear reactors). That is why over \$5B of private funding has been invested into the various fusion companies.

Humans have been using fusion energy for years without realizing it. The energy from the sun has led to the growth of plants and animals that have produced wood and oil that have been used to generate electricity. Today's solar power converts the sun's fusion energy into electricity. But now we are on the cusp of being able to harness that source of power to be utilized far more efficiently...it is indeed the "holy grail" of energy for the future.



SUBMITTED PHOTO

Kennesaw State University (KSU) student Simon Bratescu is the winner of the 2023 Robert Maher Memorial Scholarship.

Bratescu wins Maher scholarship

Citizens for Nuclear Technology Awareness (CNTA) and Savannah River Mission Completion (SRMC) have announced Kennesaw State University (KSU) student Simon Bratescu as the winner of the 2023 Robert Maher Memorial Scholarship.

The scholarship is sponsored by SRMC, the liquid waste contractor for the U.S. Department of Energy at the Savannah River Site (SRS).

Bratescu, a junior from Gainesville, Georgia, is pursuing a bachelor's degree in mechanical engineering with a minor in nuclear engineering at KSU. CNTA Executive Director Allison Hamilton Molnar said CNTA is proud to award this \$5,000 scholarship to such a talented and deserving student.

"Simon's passion to pursue nuclear research was immediately evident in his scholarship application," Hamil-

ton Molnar said. "CNTA is pleased to present him with financial support to continue his education. No doubt he will be an exemplary addition to the nuclear industry."

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. Details on the scholarship can be found at: <https://cntaware.org/maher-memorial-scholarship/>.

INNOVATION • DEFENSE

NONPROLIFERATION • ENVIRONMENT

SRNS

Savannah River Nuclear Solutions

We make the world **safer.**