

CNTAWARE

SPRING 2017

CITIZENS FOR NUCLEAR TECHNOLOGY AWARENESS



A WORD FROM OUR EXECUTIVE DIRECTOR—DR. JIM MARRA

I have now been serving as Executive Director for 4 months. As I have learned through involvement with other non-profits, volunteers are the lifeblood of these organizations and CNTA's volunteers are no exception! Through service on the board of directors or various committees, participating in our workshops or events, or just providing heads-up to information that may be of interest to our members, I am thoroughly impressed by the quality and quantity of our volunteers. Patti Swanson and I recently had to compile volunteer numbers as part of our non-profit tax declaration and I was pleasantly surprised when the number totaled well over one hundred! So, first and foremost, I would personally like to thank all the volunteers that make our organization so successful. If you have an interest in volunteering, please contact me and I will be glad to buy you a cup of coffee and discuss.

I am excited by a couple of initiatives that we have in the works for 2017 and would like to share those with you. First, through the leadership of Chuan Wu, we are re-establishing a Speakers' Bureau. We have compiled over 25 presentations on subjects including Nuclear Energy, Nuclear Safety, Nuclear Security, Waste Management, and Careers and Education. We will roll out the program in the next few months. We also have a very energetic group of young professionals who are actively planning a membership fundraiser to be held in October 2017. You will be hearing much more about the fundraiser and hope that you will be able to participate in this fun event!

The Education Committee, under Mel Buckner's leadership, has been quite busy. A teacher workshop was held in Richmond County in February. Although the numbers could have been higher, it was good to get a foot in the door to hopefully establish a presence in Richmond County. We have just reached the deadlines for the student essay contest and a new student video contest. Marissa Reigel and her team are evaluating the entries. More information follows in this newsletter.

We have also established a Golf Tournament Committee to keep this successful event moving forward. We are brainstorming some new prize contest ideas and hope that these will add to the enjoyment of the event. If you have any suggestions, please let us know.

Finally, I want to thank Patti for her guidance and patience as I am learning the ropes. We are very fortunate to have such a skilled, personable and dedicated Office Manager!

Jim



CNTA EDUCATION COMMITTEE

BY ROBERT WILSON & MARISSA REIGEL

FUTURE CITY COMPETITION: The 2017 Future City Competition sponsored by Savannah River Nuclear Solutions, LLC, in partnership with the Ruth Patrick Science Education Center, was held at USC Aiken on January 21, 2017. Citizens for Nuclear Technology Awareness (CNTA), in conjunction with the American Nuclear Society-Savannah River Section (ANS-SR), were Diamond sponsors in the special awards category, “Best Energy Systems”. Thirty nine groups entered the competition representing middle schools from South Carolina and Georgia. Teams were required to do research for their city, build a model demonstrating the concepts they had chosen to incorporate into their city, and give a presentation to the panels about their future city. Judges selected three teams for finalists, and asked them a series of questions about their designs. Winners were selected as follows: First Place—St. Mary’s on the Hill Catholic School—Virdeca; Second Place—Paul Knox Middle Schools—Magdalena; Third Place—Westview Middle Schools—Macassemi.

The “Best Energy System” was chosen using four criteria: innovation, realism, sensitivity to the environment and cost effectiveness. For judges representing CNTA and ANS-SR evaluated all 39 cities using this criteria. St. Mary’s on the Hill Catholic School—Zoeaublaur was deemed the winner. The team consisted of Zoey Koltz, Aubrey Yonesaki and Lauren Rodgers; teacher—John Allen; Mentor—Janet Yonesaki.



VIDEO CONTEST: This year, CNTA held its first annual High School Video Contest. High school students were challenged to increase their awareness and knowledge of nuclear technology by creating video that “debunks” a nuclear myth. The goal of the contest is for the students to integrate science, technology, social understanding and language arts to create a two to five minute video. The winner of the inaugural video contest is “The Nuclear Truth”, a short video story about many of the myths surrounding nuclear energy, submitted by Richmond County Technical Careers Magnet School. The team of eight students will be recognized at the school’s student awards ceremony and will be awarded a Go-Pro Camera for their school. If you are interested in viewing the video, it can be found at: <https://youtu.be/WF9I2zBv50Q>.



ESSAY CONTEST: The 11th annual CNTA High School Essay Scholarship submittal period has ended and the judges are busy grading the essays. This year, CNTA received 15 essays from eight different schools. The students were tasked with writing a 1000 – 1500 word essay on one of the following topics:



- Discuss the importance of isotopes in today's medicine and the U.S. dependence on foreign supply.
- Discuss the effects of nuclear power plant closures either nationally or internationally. How do these closures affect the stability of the electric grid, the economy of the surrounding areas, and the effect on greenhouse gas emissions?
- Discuss the risks of on-site storage of radioactive waste at generator facilities vs. the potential risks associated with transporting the radioactive material to a long-term storage facility or repository.

The winners will be announced shortly and receive a \$1000 scholarship while their school will be awarded \$500. Contest winners will be recognized at their student awards ceremony and at the annual Edward Teller Lecture/Banquet held in late 2017.

CNTA GIVES ANNUAL STATE OF NUCLEAR INDUSTRY IN SOUTH CAROLINA TO STATE LEGISLATORS—BY COMMUNICATIONS COMMITTEE

Citizens for Nuclear Technology Awareness (CNTA) held its annual State of the Nuclear Industry in South Carolina meeting on January 26 for S.C. Legislators to help them better understand what the nuclear industry does for the state.

Jim Marra, CNTA executive director, said in a news release that the event was an opportunity to better equip lawmakers with more information about how reliant South Carolina is on the nuclear industry, the number of jobs it provides, and the economic impact it has across the state.

This year's update included a focus on education investment provided by the nuclear industry in the Palmetto State.

"In our area, we know the Savannah River Site is a key economic driver in the CSRA, but across the state, all legislators aren't as aware of what SRS and other nuclear businesses do to help our state. Plus, there's more to nuclear than providing stable jobs," Marra said. "For example, many people don't realize how much investment the nuclear industry makes in our education system, from kindergarten through graduate school, to ensure a solid workforce for South Carolina's future."

Speakers for the event were:

- Don Bridges, chairman of the board, and Jim Marra, executive director, CNTA
- Tom Foster, president and project manager, Savannah River Remediation
- Terry Michalske, director, Savannah River National Laboratory/Savannah River Nuclear Solutions
- Steve Byrne, chief operating officer, SCANA Corp.
- Steve Nesbit, director nuclear policy and support, Duke Power
- Travis Knight, University of South Carolina, program director, Nuclear Engineering Program and Professor

The speakers also discussed various nuclear projects they oversee, providing legislators with an update on the progress of their work and answering questions about the nuclear industry.

S.C. Sen. Tom Young, R-Aiken, sponsored the meeting in Columbia for those in the General Assembly.



Legislative members are addressed at the 2nd annual State of Nuclear Industry in South Carolina session held in Columbia on January 26.



Jim Marra, CNTA Executive Director; Senator Tom Young; Don Bridges, CNTA Board Chair

CNTA HOLDS MEMBERS MIXER/ANNUAL MEETING, TOUTS A SUCCESSFUL YEAR

BY COMMUNICATIONS COMMITTEE

Citizens for Nuclear Technology Awareness (CNTA), a non-profit advocate and educator for nuclear technologies, recently gathered in Aiken for their Annual Meeting.

The event, sponsored by Bechtel, was held at Newberry Hall with 125 members enjoying an evening of food, drink and fellowship. The event was also attended by District Director for Senator Johnny Isakson, Nancy Bobbitt, and Special Assistant to Congressman Joe Wilson, Martha Ruthven.

The Annual Report presentation was given by CNTA Executive Director Jim Marra who listed several of the organization's successes in 2016.

Highlights included:

- CNTA's income increased from 2015-2016. Marra called the status of the organization's finances "very good."
- The Education Outreach committee had a productive year, holding a number of workshops and life-long learning seminars throughout the year. The flagship event conducted through the Education Committee was the annual Southeast Summer Nuclear Institute (SSNI).
- The 2016 Edward Teller Lecture was very successful. Dr. Siegfried Hecker, Professor of Management Science and Engineering at Stanford University, was the 2016 guest speaker.
- CNTA awarded the Robert Maher scholarship and the new ATC Nuclear Program scholarship to college students, and awarded scholarships to high school students through the annual essay contest.
- Marra then introduced Vice Chair for the CNTA Young Professionals Committee, Alex Somers. Somers announced a new fundraising event, a Costume Ball, to be held Friday, October 13, 2017. Proceeds from the event will help fund initiatives to increase interest among the young professionals of the CSRA.

Marra concluded the meeting by listing upcoming events in 2017, including the restart of the CNTA mentoring program, Up & Atom breakfasts, the 2017 CNTA Annual Golf Tournament and the 2017 Southeast Summer Nuclear Institute (SSNI).



EVENT SPEAKERS



Up & Atom Breakfast—January 11
Stuart MacVean, SRNS President
“SRNS: Innovation for Tomorrow, Today”
Sponsored by SRNS



ANS-SR/CNTA Co-sponsored Dinner—February 2
Dr. Andrew Klein, ANS President
“Advancing Advanced Reactors”



2nd Annual State of Nuclear in SC—January 26
Various speakers representing CNTA, Duke Power,
SCANA, SRNL, SRR, USC Columbia



Up & Atom Breakfast—March 1
Jeff Baker, SN3 Assistant Vice President
“Department of Energy’s National Laboratories:
Past, Present & Future”
Sponsored by SN3



Members Mixer/Annual Meeting—March 21
Dr. Jim Marra
“2016: CNTA Overview and Looking into 2017”
Sponsored by Bechtel

CENTERRA EMPLOYEE RECEIVES LIFE-SAVING CARE AT SRS

BY ROB DAVIS

The two Centerra pilots and Special Response Team boarded DOE Helicopter N117SR as they had numerous times in the past, preparing for a regularly scheduled overflight of the Savannah River Site. It was 7:50 p.m., on Saturday, February 4, when the pilot started both engines and confirmed that the SRT personnel were seated in the back. The helicopter was seconds from lifting off the ground at the Aviation Operations Department facility in B Area.

That's when the day became anything but routine for the flight crew, SRT personnel, and Site emergency responders.

"I noticed that he had overlooked a procedural step during start-up, having given the signal to disconnect the battery cart but had failed to move the power select switch from external power to battery," said Co-Pilot Lonnie Burns. "I asked him if he noticed the beeping that indicated a power loss due to the switch being in the wrong position, and his response was unintelligible."

At that point, the primary pilot made a radio call to the SRS Operations Center, indicating that the helicopter was departing and began to pull up the collective lever to start the flight.

"I pushed the lever back down and asked him if he was OK," said Burns. He told me that he was fine and again began pulling the lever up to raise the aircraft off the ground. Burns then took over the controls, lowered the lever, and again tried to determine the condition of the primary pilot, who responded with an unintelligible statement.

Sergeant John Cagle, who was seated with the Special Response Team in the back of the helicopter, told Burns over the headset that he too had noticed a potential problem with the condition of the primary pilot. Burns instructed Sgt. Cagle to call SRSOC and get EMS on the way.

"I felt that he was having a stroke and knew we had to get medical assistance on the scene quickly," said Burns. "I helped get his helmet off and he seemed disoriented and was not speaking at all."

Savannah River Nuclear Solutions Fire Department Paramedic/Firefighter Jeremy Thorne and Captain Chris Alverson were the first responders, and upon consultation determined that a helicopter medical evacuation to the hospital was needed. At 8:21 p.m., with Lonnie Burns at the controls, the helicopter lifted off bound for University Hospital in Augusta, with the patient, Captain Alverson, and Paramedic/Firefighter Thorne.

"We landed at University Hospital ten minutes later," added Burns. The patient immediately began receiving critical care at the hospital and the helicopter returned to SRS.

"Without a doubt, the quick assessment and response by all personnel involved in this emergency situation saved our employee's life, and potentially prevented what could have been a catastrophic event due to our pilot suffering stroke-like symptoms," said Mark Bolton, Centerra-SRS General Manager. "It was a total team effort that involved Centerra and SRNS personnel, as well as the hospital staff. This speaks to the level of training and preparedness of the individuals involved, and we are grateful to have their expertise and capabilities on Site."

)continued on Page 7)



CENTERRA EMPLOYEE RECEIVES LIFE-SAVING CARE AT SRS

BY ROB DAVIS—CONTINUED FROM PAGE 6

(Continued from Page 6)-

It was determined that the patient, who is not identified due to health privacy issues, had suffered a brain bleed that caused the stroke symptoms. The co-pilot immediately recognized that he was acting out of character and took actions to shut down the flight and call for emergency medical response. The situational awareness of Co-Pilot Burns and his attention to detail and coordination with other responders, along with the quick response of medical personnel and subsequent medevac flight to University Hospital saved the patient's life.

Those involved in the emergency response were recognized for their role in this life-saving operation. Pilot Lonnie Burns was presented the prestigious Valor Award from the Centerra Corporation. The Valor Award is presented to employees who distinguish themselves by exceptional meritorious service or who perform an act of bravery above and beyond required responsibilities.

The other Centerra-SRS employees, including Sergeant John Cagle, Security Police Officer III Logan Burgess, Site Commander Neil Thompson, SRSOC Specialist Jeff Pruitt, Law Enforcement Dispatch Center Specialist George Hyatt received Outstanding Service Awards. SRNS Fire Department Chief Shep Archie, Captain Chris Alverson, Steve Hall, Tom Foster, Eddie Dantzler, and Jeremy Thorne, along with SRS Emergency Management Operations employees Barry Sumner, Cindy Rowell, and Cassandra Holloway were presented Letters of Appreciation, along with the Centerra General Manager's Coin for Excellence.



Centerra-Savannah River Site helicopter pilot Lonnie Burns is presented the Company's Valor Award by General Manager Mark Bolton.

Congratulations!

SAVANNAH RIVER ECOLOGY LAB RACCOON STUDY AIMS TO ERADICATE RABIES

BY THOMAS GARDINER, AUGUSTA CHRONICLE

Leaves crunch beneath the boots of four scientists as they make their way along a line of traps marked only by small, bright pink flags through the remote woods of Savannah River Site. In one trap, the crew finds a raccoon and quietly steps back to put their research plan into action.

Scientists at the University of Georgia's Savannah River Ecology Lab have been studying to bolster efforts to eradicate rabies. Their work has gotten them up close and personal with a lot of area wildlife, especially raccoons.

"About 90 percent of all rabies cases reported in the United States are cases in wild animals," said Dr. Guha Dharmarajan, head of the study. "Of those cases reported in wild animals, about 30 percent are in raccoons."

Dharmarajan said efforts have been going on to fight rabies for years, including legislation requiring domestic cats and dogs be vaccinated. He said there is no treatment for rabies once the disease is contracted.

The seriousness of the disease is a major reason for continued studies, according to Dharmarajan. According to statistics from the World Health Organization, more than 55,000 people die worldwide each year from rabies – but only two or three of those happen in the U.S.

Just like efforts with polio and smallpox, these scientists hope to help eradicate rabies. Just as smallpox and polio were beaten with vaccinations, rabies in the raccoon population will be fought with vaccinations.

This vaccine doesn't happen in a visit to a physician though. It will instead be administered orally through specially designed baits.

But raccoons aren't alone on the 310 square mile expanse of SRS. They live in several different habitat types and compete for food with possums. Dharmarajan said the vaccines must reach 80 percent of the population before the disease will start to disappear into eradication. He said the biggest challenge is ensuring that threshold is met.

"We are trying to get good estimates of population sizes and find out how far they are moving. We have to also figure out how much of the population we are vaccinating, because some of the baits will be eaten by possums," Dharmarajan said.

Scientists Dana Goin, Beckie Juarez and Jessica Buskirk worked together to tag the captured raccoon and collect important samples and other data.

"The sedative takes about a half an hour to wear off," Buskirk said. "We want to watch for some head movement and we want to be away from the animal when it wakes up. Waking up to a bunch of giant people standing over it would be pretty terrifying."

The team tracks the captured animals and will begin using tracking devices once the next phase of the study kicks off. The information collected can help them learn more about specific raccoon behavior and habitat usage. The study will also provide data about how far the young male yearlings travel when they set out for lives of their own.

Dharmarajan said the good access to a great population makes this an ideal place for the study because of the prevalence of rabies in raccoon populations and their large numbers in the Southeast. He noted that much of SRS is wooded and doesn't see a lot of interaction with humans.

The captured raccoon was tagged and his data collected before Goin, Juarez and Buskirk returned the animal to the wild.

Dharmarajan said, "The hope is that by doing these kinds of vaccines you can eradicate this disease and then not worry about being infected or having your dogs or cats infected." He said rabies is spread primarily through bites from an infected animal, including bats, another significant rabies-carrying animal.

According to the WHO, it's best to seek medical attention right away if you have any suspicion that you may have been bitten. The disease can be excruciating and fatal without receiving an injection of rabies immunoglobulin.

Savannah River Ecology's Beckie Juarez and Jessica Buskirk take hair and blood samples from a sedated raccoon as part of an ongoing study to eradicate rabies.



SRS SAVES \$500,000 BY MODIFYING ROBOTIC CRAWLER

OBTAINED FROM EM UPDATE NEWSLETTER

AIKEN, S.C. – The management and operations contractor at the Savannah River Site joined EM's Savannah River National Laboratory (SRNL) to modify a one-of-a-kind robotic recovery crawler for different uses instead of buying a new one, saving about \$500,000 in taxpayer dollars.

The crawler — a remotely powered and controlled vehicle — inspects hazardous areas in H Canyon's exhaust system. For years, SRS has used the crawler as a safe inspection method in the system's harsh environment with radiation, contamination, chemical and physical hazards and high air flow.

"The crawler program has proven to be a safe and effective way to inspect the facility exhaust system," Savannah River Nuclear Solutions (SRNS) Exhaust Tunnel Inspection Project Manager Bill Giddings said. "The crawler program team decided to modify the existing crawler this year instead of procuring a new crawler. This decision saved approximately \$500,000."

The existing crawler was originally designed for recovery and inspection, and it successfully completed those activities during the last evaluation of the exhaust tunnel. Some modifications completed this year included replacing the front end's forks, used for recovery, with a bucket. The bucket allows the crawler to be used as a front-end loader to remove debris from the tunnel path, creating a better surface for future crawler inspections. Other modifications included improving stability through a counter-weight replacement and adding additional video capability.

The crawler modifications took three months to complete. Giddings credits hard-working SRNS and SRNL employees with the successful completion.

"We couldn't have done it without the cooperation of our teams," he said. "SRS is truly lucky to have such an experienced, committed and talented workforce."

The H Canyon exhaust system is used to contain and direct the exhaust air flow from the canyon process areas to the sand filter system. That system removes the radionuclide particles from the air stream prior to release of the air to the environment.

H Canyon was built to produce nuclear materials to support the nation's defense weapons systems. Today, it helps eliminate or minimize nuclear materials through safe stabilization and disposition.



Operators modify a one-of-a-kind robotic recovery crawler used in H Canyon .

KEY PIECE OF EQUIPMENT BEING REPLACED AT THE SAVANNAH RIVER SITE

SUBMITTED ARTICLE

Savannah River Site's Melter 2, a key component in the Defense Waste Processing Facility (DWPF), will be replaced after nearly 14 years of record-breaking operational performance. A heater inside Melter 2 failed on February 1 and is deemed not repairable.

Melter 2 is only the second melter in the 20-year history of DWPF. It has been operating nearly 14 years, approximately 12 years beyond its design life expectancy. Melter 1 ran for about six years of radioactive service and another two years of non-radioactive simulant processing.

The operational concept for DWPF is to use a melter until it is no longer operational and then replace it with a new melter. There are no risks to the public, workers, or the environment during melter replacement. The replacement melter, the third melter to be installed in DWPF, known as Melter 3, has been ready for years. Work to install it will begin shortly, and will required approximately six months.

Melter 2 has poured 2,819 canisters during its life, more than double what Melter 1 produced in its life span, which was 1,339 canisters. Melter 1 was placed into radioactive operation in March 1996, following approximately two years of non-radioactive simulant operations. Melter 2 began operating in 2003. Together, Melters 1 and 2 have poured 4,158 canisters through January 31, 2017. The predicted number of canisters needed to dispose of SRS' high-level tank waste is 8,170, according to the SRS Liquid Waste System Plan Rev. 20.

Since beginning operations, DWPF has poured more than 16 million pounds of glass and has immobilized about 61 million curies of radioactivity.

Savannah River Remediation (SRR) operates DWPF, as well as other liquid waste facilities at SRS, as part of its contract with DOE. Operations are expected to continue at DWPF for approximately 20 more years.

SRR keeps one melter in storage in case the working melter needs to be replaced.

Melter life extension is the product of work by engineers and scientists. The increased Melter 2 operational life resulted from the following:

- Incorporating an improved insert in the melter, used from the beginning of this melter's operation, ensures glass waste doesn't cause the melter's pour spout to erode;
- Heating the internal area where the glass flows into a canister to ensure it does not stick;
- Adjusting electrical current to the electrode heaters inside the melter to increase its heating capacity;
- and installing agitation bubblers that are used to improve the heat distribution in the waste glass pool in the melter to achieve a better pour rate.



SRS ENGINEERS SHARE KNOWLEDGE AND EXPERIENCE DURING CSRA TEACH-INS IN SUPPORT OF NATIONAL ENGINEERS WEEK



Savannah River Site (SRS) employees observed National Engineers Week 2017 by conducting science and engineering demonstrations for more than 3,000 students throughout the greater Aiken-Augusta area.

More than 60 SRS engineers, scientists and technicians conducted over 150 “Teach-In” demonstrations during a two-week period at 29 middle schools, with a focus on seventh-grade students.

Teach-Ins promote the importance of math, science and technology literacy. SRS volunteers provide interactive demonstrations and informative discussions to give students a broader understanding, predominantly in the field of engineering.

“The partnership between Savannah River Nuclear Solutions (SRNS) and area schools provides a highly beneficial opportunity for SRS scientists and engineers to work directly with students in their classrooms,” said Stuart MacVean, SRNS President and CEO. “This is one of many ways we are reaching into local school systems and area colleges to develop an interest in a potential career with SRNS, part of an extensive effort to create a pipeline for future workers.”

Middle schools in the South Carolina counties of Aiken, Allendale, Bamberg, Barnwell and Edgefield, plus the Georgia counties of Columbia and Richmond, have participated in this outreach program managed and sponsored by SRNS since 2008. During this time period, over 18,000 students from this region have benefited from the creative work and hours of effort provided by hundreds of enthusiastic Teach-In volunteers.

“We’re grateful for our partnership with SRNS and their efforts to foster student interest in STEM fields,” said Aiken County Public Schools Superintendent Dr. Sean Alford. “Teach-Ins pair our classroom instructors with real-world scientists and engineers. This much-anticipated annual event in our middle schools provides a real-world experience for students and makes their classroom curriculum relative to the workforce.”

North Augusta Middle School seventh grader Sidney Stephens noted that a hands-on demonstration using Oobleck was an interesting way for her class to experience that work at a job, especially engineering, can be fun.

Made from cornstarch and water, Oobleck has the properties of a liquid when poured; however, it quickly becomes a solid when force is applied. A layer of Oobleck on the floor can be walked on without sinking through to the flooring beneath.

Classmate Katiebeth Cannon believes she’ll find many connections between what she has learned during the Teach-In experiments and her various math and science classes. “It’s nice that these people from SRNS actually care about what I want to do when I get older,” said Cannon.

“As engineers, we wanted the students to come away from this demonstration thinking if we can understand some of these physical phenomenon better, we can develop something similar later and be the next generation of innovators,” said Ethan Simmons, an SRNS Engineer. “Getting involved in Teach-Ins is a great way to give back and hopefully inspire them as well.”

According to fellow SRNS Engineer Ian Conant, “We were able to engage the kids with an experiment that has a real-world application and help them to retain it. We explained that some of today’s experimental motorcycle apparel uses the same physics principles as Oobleck. The clothing remains pliable until it is struck, and then it instantly hardens to help protect the rider.”

A project of DiscoverE, National Engineers Week celebrates the positive contributions engineers make to society and is a catalyst for outreach across the country to kids and adults alike.

The SRS Teach-In Program is managed by SRNS Education Outreach personnel for the DOE Savannah River Operations Office. DOE and SRNS provide a variety of science, engineering and literacy outreach programs to reach tens of thousands of students each year in the Central Savannah River Area through the unique resources available at SRS.

MOX TEAM "REV'S IT UP" WITH \$28,331 FOR THE CSRA HEART WALK

SUBMITTED ARTICLE

The CB&I AREVA MOX Services team raised \$28,331 for the 2017 Central Savannah River Area (CSRA) Heart Walk, a fundraiser for the American Heart Association (AHA).

During the Month of February, MOX Team members spent extra effort and personal time to raise more than \$28,000 for cardio vascular medical research and preventative education. The AHA is a nationwide organization that oversees fundraising and distribution of research money raised.

All of the money raised will be spent locally on research and education, through many of the local medical school throughout the CSRA.

Photo caption: MOX Team members gather before the 2017 CSRA Heart walk. (Photo by Justin Leonard)



UPCOMING EVENTS

April 20	Up & Atom Breakfast—BWXT—Newberry Hall
May 12	CNTA's Annual Golf Tournament—Houndslake Country Club
May 24	Up & Atom Breakfast—Ken Picha (co-sponsored by ANS-SR) - Newberry Hall
May 31	Dinner Meeting (co-sponsored by Women in Nuclear) - Newberry Hall
June 20-22	Southeast Summer Nuclear Institute (SSNI) - USC Aiken
July (Date TBD)	Up & Atom Breakfast—SRR Interns—Newberry Hall
October 13	CNTA Young Professional's Costume Ball—Aiken Center for the Arts
October 16-20	Nuclear Science Week—Various Locations
October 19	Edward Teller Lecture—USCA Convocation Center

THANK YOU TO SUPPORTERS!

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CB&I AREVA MOX Services, LLC
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Venue Acknowledgements

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Newberry Hall
Ruth Patrick Science Education Center
USC Aiken
USCA Convocation Center

Thank you to our many volunteers!

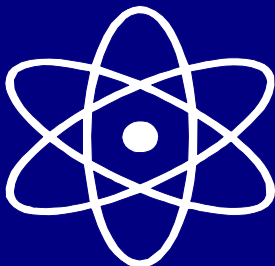




1204 Whiskey Road
Suite B
Aiken, SC 29803

Tel: (803) 649-3456
Fax: (803) 649-3860

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CNTA'S MISSION

TO PROVIDE EDUCATION AND INFORMATION ON APPLICATIONS OF NUCLEAR TECHNOLOGY INCLUDING:

- ◆ Energy Sources
- ◆ Medical Applications of Radiation
- ◆ Industrial Applications including Food Irradiation
- ◆ Nuclear Production Processes
- ◆ National Security

We are "The Citizen's Nuclear Voice"

CORPORATE MEMBERSHIP OPTIONS

Platinum: \$10,000 or more
Gold: \$5,000—\$9,999
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2017 MEMBERSHIP FORM

CIRCLE ONE: **NEW RENEWAL**

<input type="checkbox"/>	MEMBER PLUS—\$250
SAME as BENEFACTOR and includes recognition in printed CNTA materials and at events.	

<input type="checkbox"/>	BENEFACTOR—\$125.00
BEST VALUE! Members receive one Teller Lecture banquet ticket w/reserved seating and one ticket to the private Speaker's Reception; invitations to all events, quarterly newsletters and FREE membership mixers.	

<input type="checkbox"/>	PATRON —\$70.00
Members receive invitations to all events, quarterly newsletters and FREE member's mixers.	

<input type="checkbox"/>	SUSTAINING —\$35.00
Members receive invitations to all events, quarterly newsletters and FREE member's mixers.	

<input type="checkbox"/>	STUDENT —\$15.00
Same as Sustaining. Students must be currently enrolled.	

Your support makes all the difference! Help us increase public knowledge of all things nuclear and continue our education mission of nuclear technologies!

NAME:	
EMPLOYER:	
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	Email is our main means of communication! Be sure to include us on your change of address list if you make any changes to your contact information.
REFERRED BY: (Name & email address if known)	

VOLUNTEER OPPORTUNITIES: We are seeking volunteers to serve on our committees. If interested, please mark below which committee you are willing to volunteer for:

COMMUNICATIONS: _____	EDUCATION: _____
MEMBERSHIP: _____	TEACHER WORKSHOPS: _____
GOLF COMMITTEE: _____	GOLF TOURNAMENT: _____
SPEAKER'S BUREAU : _____	
ENDOWMENT FUND: I would like additional information on how to gift to the CNTA Endowment Fund _____.	

We are a Non-Profit 501 (c)3 organization, Federal Tax I.D. #57-0953103; tax deductible based on IRS guidelines

To Pay by Check: Mail to address listed below.

To Pay by Credit Card: Call the CNTA office at the phone # listed below. We accept Discover, MasterCard and Visa.

CNTA, 1204 Whiskey Road, Suite B, Aiken SC 29803

Phone: 803-649-3456; Fax: 803-649-3860; Email: cnta@bellsouth.net; www.c-n-t-a.com.

For Internal Use Only:

Date received: _____ Check/Cash _____ Check # _____ Credit Card Charge: _____ (Yes/No)

Date Entered _____