



The Neutrino

*American Nuclear Society
Savannah River Section Newsletter
P.O. Box 7001, Aiken, SC 29804
July 2015 - July 2016*
<http://www.ans-sr.org> and <http://local.ans.org/savriv/>



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Vice-Chair: Karen Bobkowski

Treasurer: Dan Thomas

Secretary: Tracy Stover

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Education Outreach Chair: Bob Eble

Membership Chair: Tinh Tran

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Publication Chair: Phil Cupp

Topical Chair: Rob Addis

CNTA Liaison: Jeff Brault

Young Members/NAYGN Liaison: Mary Mewborn

Plant Vogtle Liaison: TJ Corder

Retiree Liaison: Mel Buckner

Previous Year’s Section Chair: TJ Corder

Administrative Assistant: Diane Shelton



2015-2016 ANS Savannah River Section Officers, Executive Committee, & Liaisons



Chuan Fu-Wu
Chair



Karen Babkowski
Vice Chair



Tracy Stover
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Kevin O'Kula
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*Administrator &
Registration*



TJ Corder
(Past Chair)



Tinh Tran
Membership

Chairman's Address



Chuan Wu, ANS-SR Chair, 2015-16

It is an exciting time in the Central Savannah River Area. In addition to the technological research and development (R&D) projects and the environmental cleanup activities at the Department of Energy Savannah River Site (DOE-SR), the nearby power plants – the Vogtle Plant in Northern Georgia and the V. C. Summer Plant in South Carolina are constructing a total of four (4) new nuclear power reactors. These four reactors are the only new reactors that have received Nuclear Regulatory Commission license for construction and operation in almost 40 years. Within a radius of less than 150 miles, we have a major DOE site that continues to play an essential role in our national security and environmental cleanup program, as well as two nuclear power plants providing residents and businesses in Georgia and South Carolina with reliable and low-carbon emission energy.

I have been a longtime member of the ANS and enjoyed supporting committees and sections at national and local levels over the past 25 years. Serving as Chair of the ANS-SR has been a humbling, enriching experience for me. The section is well-established and the 300+ members, some retired and some still working full-time, are working closely together to serve our community by creating a forum for sharing information and advancements in nuclear technology, and by engaging the public and policymakers through communication outreach. Reaching out to the general public in this region is the core of our effort to promote awareness of nuclear technology.

Our members provide a diverse profile of experience and expertise in various nuclear technology and power generation fields. Most members are available and willing to share their knowledge with teachers and students, people of specific organizations, and the general public. We collaborate with other professional organizations such as the Citizens for Nuclear Technology Advancement, the Health Physics Society Savannah River Chapter, and many others on many public outreach and educational activities. In addition to the Monthly Technical Meetings in which we have a guest speaker present a nuclear topic of interest to our members and the community, we have been able to host or co-sponsor quite a few projects and activities, such as

hosting the Tritium 2016 Conference in Charleston, SC and co-supporting SEED Day, Future City Regional Competition, STEM Fest, South Aiken High School Career Day, etc.

As an active and effective large local section, ANS-SR members' efforts have been recognized by ANS with many meritorious awards. Our section received the Best Large Section Membership Award, the Meetings and Programs Award, and the Section Management Award in 2015.

I am fortunate to have the opportunity to work with ANS members to serve the community. We hope our periodic newsletter, Neutrino, helps familiarize you with our section's activities and goals. We welcome you to join the section, if you have not already. Together, we will continue to promote awareness and understanding amongst the people in the Central Savannah River Area with regards to the global application of nuclear science and technology.

Thank you and best wishes,

Chuan Wu

TRITIUM 2016 Conference Charleston, SC ♦ April 2016

General Chair Rob Addis of the Savannah River National Laboratory provided a summary report on the Section's three-year project to organize and host an International Conference on Tritium. Dr. Addis' report follows:

The Tritium Science and Technology International Conference series is dedicated exclusively to the science and technology of tritium. Since 1980, it has been held about every three years, rotating among North America (including Canada), Europe and Asia. This conference series is the pre-eminent forum for an exchange of information on science, technology, engineering and general operating experiences in safe and secure tritium handling for fusion, fission, pharmaceuticals, and other isotopic applications. As National Nuclear Security Administration's (NNSA's) Tritium Laboratory, it was appropriate that the Savannah River National Laboratory host Tritium 2016. However, to ensure a successfully organized conference, it was also appropriate that the conference be organized by the ANS, and that the Savannah River Section provide the oversight for the local organizers.

Tritium 2016, the 11th International Conference on Tritium Science and Technology, was held at the Marriott Hotel on the Ashley River in Charleston, South Carolina, on April 17-22, 2016. This was one of the largest gatherings of tritium experts in the world. There were 282 registrants, including 19 students, 15 exhibitors and 17 spouse/guests. About half of the attendees came from the US. In all, 16 nations were represented. There were 208 presentations: 134 oral papers, 73 posters and 1 panel session, which were down selected from 246 submitted abstracts. Our Technical Program Chair, Jim Klein of SRNL, brought together an outstanding international program committee that attracted papers in the ratio of 2:1 foreign:USA resulting in a truly international conference. The conference hotel, the Charleston Marriott on the Ashley River, provided a wide variety of Southern American cuisine, funded by the generous exhibitors and supporters, which kept session attendance at high levels. The dinner cruise of the Charleston harbor was the highlight of the conference. It was the baby of our Tour/Events Chair, Tommy Sessions of SRNL. Tommy also secured the services of Charleston Mayor John Tecklenburg who welcomed the attendees with an amusing and interesting presentation. SRNL Protocol Officer, Roz Blocker, organized an informative tour of SRS with a delightful

dinner at Miller's Bread Basket, an Amish & Mennonite restaurant in Blackville that specializes in home cooked meals. All loved it, but especially the Rumanians, who felt like they had gone home!

Lee Hamilton, Chair of Exhibits and Supporters, and his able team, including local section members Carl Fields (retired), Bill Wabberson and Greg Staack, brought in 15 exhibitors and supporters. The parent companies of SRNL, Fluor, Honeywell and Stoller Newport News Nuclear, provided \$20,000 in support, while the DOE Office of Fusion Energy Sciences provided a \$38,000 grant to the ANS to cover printing costs for the program, which was available at the conference, and the dedicated 2 volume peer reviewed ANS Journal Fusion Science and Technologies, which shall be provided later this year. Kevin O'Kula, our Publications Chair, handled the interactions with the ANS Head Quarters, which were often tasks requiring much patience tempered with firmness! In all, about \$96,000 of support enabled the conference to provide a generous spousal/guest program that set a new standard for this conference. The exhibitors also enriched the meeting with their presence and discussions at breaks and lunch time.

The registration was very ably conducted by our Registration Chair, Tinh Tran of our local section and Joanne Hay and Wanda Morgan of SRNL. We greatly appreciated the help from the local section during this pressing time of registration: Jay Bilyeu, Sid and Pam Keener (who flew in just for the event!), Carl Fields and Linda Wright, and Chuan Wu were all very helpful.



Most of the Tritium 2016 Organizing Committee is shown here with the Banner one last time during a closeout meeting. Shown are: Rob Addis, Jim Klein, Joanne Hay, Greg Staack, Wanda Morgan, John Dewes, Carl Fields, Lee Hamilton, Steve Xiao, Kevin O'Kula, and Tommy Sessions. Not shown are: Bill Wabbersen, Tinh Tran, Gregg Morgan, Rosalind Blocker, and Bob Rabun.

SEED Day – Aiken, South Carolina –

Our Section again supported the Science Education Enrichment Day (SEED) Day program at USC Aiken on October 1, 2015. We had another successful SEED this year even with the rain in the morning. Started great with getting out of the car in the rain and stepping into a deep puddle to get my shoes wet. Better after that. We had a great volunteer effort with Karmen McClain, Fred Pilot holding down the fission chamber with no lost time accidents. We did have a few unplanned criticalities. These can be used as a form of advertisement as it sends ping pong balls about 30 feet into the crowd. Dan Thomas handled the radiation exhibit and the nuclear power presentation all day long. Mary Mewborn took some pictures and brightened the party. Brent Bland and Alex Deng supported us and did a fine job.

I would guess that we spoke directly to over 300 students and their parents. We all look forward to at least one interaction with the students where I feel we make an impact. One student about 8 years old took the survey meter and scanned the sources quietly. I told him to turn the probe over and see the response. It went down. I asked him what he thought had happened. He said less radiation was getting thru. I asked why. He says in a quiet voice, “this side has no holes”. It is solid. The other side has holes in it so the radiation can come thru. So then I explained the difference between beta and gamma radiation. He understood and smiled.

Thanks to all who volunteered for this fine event. Bob



(Above) Bob Eble discusses the periodic table at SEED Day,
(Below) Students watch the mouse trap chain reaction at SEED Day.

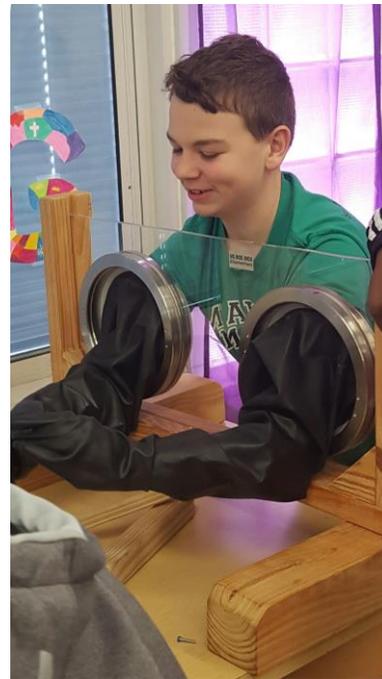


STEM Fest and ANS Savannah River

ANS participated in a STEM presentation to about 30 science students at Kennedy Middle School in Aiken. Bob Eble presented a talk on fission and nuclear power along with the fission chamber. Shirley Von Beck presented the MOX project, fuel pellets and fuel assembly information and had the students use the glovebox to manipulate items. We finished the session with a talk on radiation science and had them gain experience using the GM tube to detect radiation and learn about the features of half-life and radiation shielding. Jennifer Barrett also provided her support for the MOX AP process.

There were several intelligent students. One who corrected me when I said that Chernobyl was in Russia. He said that it was in the Ukraine. When asked how he knew this. He answered that he was from the Ukraine and that the nuclear power plant where his father worker produced over 50% of the electricity in the country, Zaporoshe. He also knew that uranium was a fissionable element and enjoyed experimenting with the Cs-137 source.

Another student was interested in the effects of radiation on the human body and asked about radiation hormesis. She was told to check out the internet site radiation-hormesis.com.



Guinyard- Butler Middle school, Barnwell, SC. 4 classes of about 20-25 students each.

Dan Thomas and I participated in the Guinyard Butler Middle school STEM Day last week, March 24th. We had the opportunity to talk to 4 classes of 7th grade students. We presented the radiation science and nuclear power presentation attached. Each class was for 1 hour. Thanks to Steve Smith, Principal Hart and science teacher Ms. Pickering for giving us an opportunity to visit their fine school. The students were well behaved, worked well together in the half-life experiment and asked good questions. It is reflective of their leadership. Hope to have the same opportunity next year.

Kennedy Middle School, aiken, SC, 30 students, Feb 23, 2016

On Wednesday I participated in a STEM presentation to about 30 science students at Kennedy Middle School in Aiken. I presented a talk on fission and nuclear power along with the fission chamber. Shirley Von Beck presented the MOX project, fuel pellets and fuel assembly information and had the students use the glovebox to manipulate items. We finished the session with a talk on radiation science and had them experience using the GM tube to detect radiation and learn about the features of half-life and radiation shielding. Jennifer Barrett also provided her support for the MOX AP process.

Science, Engineering Education Day (SEED); about 300 students; Oct. 10, 2015

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Williston STEM Day; about 100 students; April 23, 2016

Dan and I participated in the Williston STEM Day activities on Saturday. The fair was well attended by local students and some from as far as Columbia. The fair was well represented by local companies, Boeing, Energy Solutions, GE, Barnwell Middle school science teachers and many others. The students were interested in science in general and radiation science in particular. Most participated in the fission chamber exhibit, the presentation on fission and the nuclear fuel cycle. Several others participated in the radiation science exhibit and chart of the nuclides. One teacher asked about teacher workshops and I provided him with a brochure from CNTA and ANS-SR. 2 teachers were interested in having us come to their schools.

Future City

1/23/2016 Future City Regional Competition

Name of judges from ANS-SR and CNTA:

TJ Corder, Jessica Thompson, Fitz Trumble, Jeff Brault, Tinh Tran, and Mel Buckner

Name of the participants:

Students: Kelley Tran, Bella Webb, Kimberly Mazurek. Mentor Lynh Nguyen. Teacher John Allen.

School name:

St. Mary on the Hill

Future City Name:

Tranzurka

Short description of the city and its power systems:

Tranzurka's innovative waste management systems attribute to the city's goal of a "safe, pretty, efficient, and clean (SPEC)" environment, also known as the SPEC goal. Tranzurka produces Footricity, a high efficient form of energy from compost, to power Tranzurka's buildings. Tranzurka also produces Speclene, a high density durable material, made from inorganic waste. Speclene is specially formulated to contain solar material and is used to build all of Tranzurka's infrastructures. Tranzurka recycles wasted water, such as from toilets and leaks in buildings, by separating the water into hydrogen and oxygen. The hydrogen is then used in Hydrostations, which will replace gas stations, to power the Spectros, the future flying cars. In addition, Tranzurka also produces clean, efficient, and safe nuclear power by its state-of-the-art nuclear power system that has an advanced drilling system that detects and safely collects the raw material without harming the earth.

Tranzurka uses innovative collection systems to create a natural, easy approach to collect waste and raw material and convert them to clean, safe energy sources. Tranzurka's utilizes an advanced network of underground tubes called Spectubes, that are connected to each Specan, which will replace trashcans inside the homes and buildings. The Spectubes will automatically send the waste from the Specans to its respective power generation facility.

The Tranzurka Team worked really hard on this project with the goal of winning 1st place. They met every weekend for 2 months to plan, design, and build the model. There were lots of sleep-overs. They learned to use power drills,

Screw drivers, solder wires, and connect wires. They learned to become real engineers. They are ecstatic about winning the Best Energy System special award and said, "It was better than playing in the snow."



Savannah River Section Recognized for Best Large Section Membership, Meetings and Programs, and Management by ANS HQ

Savannah River Past Chair TJ Corder was notified by ANS Headquarters on October 22, 2015 that our Section had been selected to receive Local Section Meritorious Awards for the 2014-2015. The awards were Large Local Section Best Section Management and Large Local Section Best Public Information.

ANS SR Executive Committee member Kevin O’Kula accepted the award on behalf of the Section from ANS President Eugene Grecheck at the November 2015 ANS Winter Meeting and Nuclear Technology Expo in Washington, D.C. In thanking his fellow Section Members, TJ said, “Your hard work this past year made it all possible, and I can’t thank you enough. I have already heard great things about the engagement of the new Executive Committee, so I am confident that as a team we can do even more this year. Keep up the good work and the passion for making a difference. And use this as an opportunity to tell others about ANS and get them involved”!



Bringing Nuclear into the Classroom

A series of teacher's workshops entitled "Bringing Nuclear into the Classroom" was continued on March 4, 2016, with 32 teachers participating. The teachers gave excellent ratings to the workshop and 87% left with either a positive impression or strongly supportive assessment of nuclear technologies. Since the beginning of the workshop program in 2009, more than 350 K-12 teachers and summer interns at the Savannah River Site (SRS) have gained a greater appreciation for nuclear science and technology and the extensive nuclear workforce needs for the future. This represents a student population of more than 20,000 that are potentially impacted by the workshop program.

The workshops are sponsored and presented by CNTA and ANS-SR and a group of outreach educational partners including AECOM, EnergySolutions, Savannah River Site Community Reuse Organization (SRSCRO), USCA, Georgia Power Company, Areva, and the Aiken Rotary Club.

With continued support from the outreach partners, a full schedule of workshops is planned for 2016 including the Southeastern Summer Nuclear Institute (SSNI). The SSNI was initiated last year with 21 teachers participating in a full program of tours of Plant Vogtle and SRS along with a full day of workshop topics including atomic and nuclear fundamentals, power generation fundamentals, nuclear technology applications, risk (real vs. perceived), and nuclear workforce opportunities. SSNI 2016 is scheduled for June 15th to 17th and will be hosted by USCA. The Institute will include an afternoon session devoted to nuclear medicine and imaging technology at the Augusta University in addition to the 2015 program. Twenty-five to thirty middle and high school teachers are expected to attend.





**Third Year for STEM /
Nuclear Science & Technology
Richard Benjamin Memorial
Scholarship**

- Application window: January 25-April 9, 2016
- CSRA High School Seniors and first-year Technical College students
- Supported by topical meetings and individual contributions
- First two years:
 - 14 students
 - \$12,750
- For more details, contact ANS SR at:
ans.savannahriver@gmail.com



Dr. Benjamin was ANS representative to the 1st UNFCCC - 1992

2014-2015 Winner of ANS Large Section • Best Section Management • Best Public Information

2016 Benjamin Memorial Scholarship Fund

Help a deserving college-bound CSRA student and cut your tax liability for 2016. Consider making a donation to the Benjamin Memorial Scholarship Fund for deserving CSRA high school seniors in the class.

Join ANS-SR on Facebook, Twitter and YouTube

FACEBOOK: <http://www.facebook.com/pages/ANS-SavannahRiver/143771258995015>

TWITTER: http://www.twitter.com/ANS_SR (note the underline between ANS and SR)

YouTube: <http://www.youtube.com/user/ANSSavannahRiver>

Internet: <http://local.ans.org/savriv/>

Nuclear Trivia Nights

Several Nuclear Trivia Nights were held in the 2015-2016 period. We have had a few more rounds of successful trivia events this year, bringing the total number of ANS-SR trivia events to 14 so far. Some examples, in August 20, 2015 at the Carolina Ale House (hosted by NAYGN Vogtle 3 & 4), and November 12, 2015, February 4, 2016 and June 2, 2016 at the Aiken Brewery. Anywhere from 3 to 6 teams of competitors from all around the CSRA have turned out each quarter to play; including two teams, the Neutrinos and the Isotopes, who have made it to every event we've had. The teams answer questions on nuclear history, the nuclear industry, nuclear science, and nuclear themes in pop culture. The top 3 teams in each event take home nuclear-themed prizes and bragging rights. Trivia competitors come from a variety of backgrounds and places around the CSRA, and it's always a good time. Prizes and questions were assembled before each event by the collective efforts of Mary Mewborn, Brian Lenz, Dan Hanson, and Amanda Bryson; AV support has been provided at each event by Jay Bilyeu; emcee support has been provided by Bob Eble.

CSRA College Night – James Brown Arena, September 10, 2015

Over 8,000 high school students, parents, teachers, college representatives, and technical society representatives were on hand at James Brown Arena in downtown Augusta for the Annual CSRA College Night. The event provides an opportunity for high school seniors and juniors as well as younger classmates to visit with representatives from over 140 colleges and universities to discuss each institution's strengths and discriminating factors. ANS SR and eight other societies also participate to encourage students to plan now for a career in a Science, Technology, Engineering and Mathematics (STEM) field, and especially look for oncoming opportunities in nuclear science and technology.

Kevin O'Kula and TJ Corder talked to approximately 40 students and parents over a three-hour period. They discussed their experiences in the Nuclear Field, the colleges that support nuclear science and engineering with undergrad and graduate programs, and how involvement in the American Nuclear Society can provide unique opportunities, promote networking and career growth as a student and as an early career professional. Many questions were fielded on what engineers do, what courses were needed throughout college, and the opportunities in the CSRA after graduation.

This year's College Night is scheduled for Thursday, September 15, 2016 at the James Brown Arena in Augusta. Please contact Kevin O'Kula if you are interested in talking to the next generation of nuclear engineering and science professionals, educators, and technicians.



24th Annual CNTA Edwin Teller Lecture, October 19, 2015

Speaker: Admiral Cecil Haney

ANS-SR Member Attendees

- Tracy Stover
- Bob Eble
- TJ Corder
- Jeff Brault
- Robert Addis & Mrs. Addis
- Jay Bilyeu & Mrs. Bilyeu
- Mel Buckner
- Tim McKinsey
- Chuan Wu & Bijou Wu
- Terry Huang & Mrs. Huang (Chuan's guests)

Summary

ANS-SR reserved two tables at the 24th Annual Edwin Teller Lecture held at the University of South Carolina Aiken's Commencement Center. The dinner was catered by the University. The Fred C. Davidson Distinguished Scientist Award was presented to Dr. Natraj Iyer, Associate Laboratory Director of the Nuclear Material Management Programs at Savannah River National Laboratory. The winner of the Robert Maher Memorial Scholarship, Ms. Bianca D'Angela Cruz, was also recognized. Ms. Cruz is a nuclear engineering student at South Carolina State University. The Citizens for Nuclear Technology Awareness also recognized the winners of their high school essay contest.

The evening's key note speaker was Admiral Cecil Haney who currently serves as Commander, United States Strategic Command. Haney indicated his appreciation for the nuclear hub in the CSRA and the many years of service to our nation provided by the Savannah River Site and SRNL. He spoke of his career, encouraging both academic study in science, engineering, and mathematics as well as military service to the nation. Haney then spoke more directly about his current role and the many faceted challenges affecting U.S. Strategic Command. He spoke of the dichotomy of non-proliferation for national security and the need to maintain our own nuclear triad deterrent. Again Haney praised our region for its decades of support. Haney concluded with encouragement to the students and young professionals in the audience.

ANS-SR was joined by tables of many other organizations in the local nuclear industry including Southern Company, SCE&G, Centerra, CNTA, Westinghouse Electric Company, Areva, and CB&I.

Technical Meetings Fall 2015 to date

October 2015 Technical Meeting

The American Nuclear Society Savannah River section held a technical meeting on October 8, at Brooks Gallery at the Aiken Center for the Arts. David Del Vecchio president and project manager for CB&I AREVA MOX Services, LLC was the speaker for the evening. He discussed the design, construction and operation of the MOX facility that will convert surplus weapon-grade plutonium into reactor fuel for use in commercial nuclear power plants. Mr. Del Vecchio joined the MOX project in August 2011, with 27 years of management experience with large-scale nuclear projects.

November 2015 Technical Meeting

The November technical dinner meeting was held on the 18th, at Mi Rancho Mexican Restaurant. Mr. David Lavigne the General Manager Operational Readiness for New Nuclear Deployment for SCE&G. His presentation included the construction status and issues for the VC Summer Units 2 and 3. The construction and operation of the two Westinghouse AP1000 nuclear units are in Jenkinsville, South Carolina.



December 2015 Christmas Celebration

The ANS-SR in conjunction with the SRSLA hosted a celebration of food and wine on December 1st. This event proved to be an enjoyable time for all who attended. The celebration was held at the North Augusta Community Center in North Augusta, South Carolina.

January 2016 Technical Meeting

The American Nuclear Society Savannah River (ANS SR) section held a technical meeting on January 20, 2016, featuring guest speaker, Mr. Thomas Johnson, Jr. Mr. Johnson is the Associate Deputy Manager for the U.S. Department of Energy-Savannah River Operations Office at Savannah River Site. The meeting was held at the Hilton Garden Inn in Aiken, SC. Mr. Johnson's topic was *DOE/SRS Status Overview and Outlook*. Mr. Johnson provided an overview of the current status and an outlook of the major plans/programs at the SRS. As the DOE-SR Associate Deputy Manager, Mr. Johnson is responsible for all business-related functions at SRS, which include: human resources; organizational culture, safety and quality assurance; budget formulation and implementation; project planning, management, and integrations; and award of new contracts and contract administration.



(Photo with permission of the Aiken Standard and courtesy of Derrek Asberry)

February 2016 Technical Meeting

The American Nuclear Society Savannah River (ANS SR) section held technical dinner meeting on February 18, 2016, featuring guest speaker, Ms. Melissa Jolley, Cold War Curator at Savannah River Site (SRS). The location for the meeting was at Bobby's BBQ in Warrenton, SC. Ms. Jolley presented the reasons Plant 124 was needed in 1950 and how it became the Savannah River Site. She discussed the factors that led to the site location decision as well as how the project and construction led to growth in the CSRA. Ms. Jolley has been the Cold War Curator at the Savannah River Site Curation Facility since 2013. The SRS Curation Facility houses over 4,000 artifacts from across the SRS and includes documents, large equipment objects, employee memorabilia, and more.



March 2016 Technical Meeting

The March technical meeting was held at Boll Weevil in Augusta on March 31st. Dr. Robert B. Hayes, was the guest speaker for the evening. His work at the Consortium for Nonproliferation Enabling Capabilities (CNEC) at North Carolina State University brings together the modern R&D support provided by the Department of Energy's National Nuclear Security Administration (NNSA) to universities. Dr. Hayes discussed NCSU/CNEC and its support of external university research in the field of nuclear security around the country. DOE/NNSA assets and applications in nuclear security will be discussed. These will include all the basic features of emergency response as well as nonproliferation, arms control and attribution. The basic physics underlying most nuclear forensics applications will be covered. The presentation will follow dinner & brief announcements. Dr. Robert B. Hayes, Associate Professor of Nuclear Engineering at North Carolina State University, is a Fellow of the American Physical Society having a PhD in Nuclear Engineering and a MS in Physics. He is also a Certified Health Physicist by the American Board of Health Physics and is a Licensed Professional Nuclear Engineer in both New Mexico and Nevada.



April 2016 Technical Meeting

The April 26, 2016 technical meeting was jointly sponsored by the Citizens for Nuclear Technology Awareness and was part of the Up and Atom breakfast series at Newberry Hall. It featured Mr. Matthew Moury, Associate Under Secretary for Environment, Health, Safety & Security. Mr. Moury's topic was in Overview of DOE Environment, Health, Safety & Security Programs.



June 2016 Technical Meeting

The June 7, 2016 technical meeting was held at Newberry Hall in Aiken. It featured Mr. Richard “Chip” Lagdon, Senior Project Director for AECOM Technical Services in Aiken. Mr. Lagdon served as Chief of Nuclear Safety for Environmental Management for the past 10 years where he led Construction Project Reviews and managed a group of nuclear safety experts responsible for overseeing nuclear safety at the Department. He has also led Accident Investigations, Operational Readiness Reviews and conducted numerous technical evaluations across the complex. His presentation was entitled, “Lessons Learned from 6 years of EM Construction Project Reviews”. Chip noted that EM implemented Construction Project Reviews in 2009 to improve project management within the Department. Between 2009 and 2015, 25 reviews were conducted at the various EM Projects including WTP, SWPF, DUF6, IWTU and others. The presentation summarized the common issues, current Project Management practices and what are the lessons learned for future nuclear construction projects.



Southeastern Summer Nuclear Institute

Twenty-nine teachers and guidance counselors saw nuclear technology in action during the Southeastern Summer Nuclear Institute (SSNI) held June 15-17, 2016. They came from as far away as Acworth, GA and Greenville, SC to spend three days out of their summer vacation to learn more about nuclear energy and technology. And SSNI was just the ticket.

The Institute included a tour of the Vogtle nuclear energy facility in Burke County, GA including control room visits, simulator exercises, meetings with nuclear power reactor personnel, etc. The participants were most impressed with the modernized control room that will be used to operate the two new reactors that are currently under construction and the enhanced safety features that are included in the reactor design.

The Institute also included a tour of the Savannah River Site (SRS) near Aiken, SC including radioactive waste management facilities and the broad range of research and development activities conducted by the Savannah River National Laboratory. The teachers were impressed with the complex facilities and equipment used to prepare the high level waste currently stored in large under-ground waste tanks for safe disposal on the SRS and ultimately in a federal repository. In addition, SSNI included a visit to Augusta University for an overview of nuclear medicine facilities and procedures.

In each case, career opportunities were discussed and the need for a strong background in Science, Technology, Engineering, and Mathematics (STEM) was emphasized. Evening sections were also presented to allow the teachers to share their experiences in motivating students to higher level of achievement. In addition, the evening programs included a panel discussion of local educational opportunities led by Mindy Mets, the Nuclear Workforce Initiative Program Manager for the Savannah River Site Community Reuse Organization (SRSCRO) and a challenging presentation by Captain Kevin Byrne, Commanding Officer, Naval Nuclear Power Training Command, on the Navy Nuclear Power School.

The Institute included a series of workshop sessions over the three days to emphasize atomic and nuclear fundamentals, power generation fundamentals, nuclear technology applications, risk (real vs. perceived), and nuclear workforce opportunities with hands-on activities to illustrate important technical concepts and scientific principles. Lodging (if needed) and meals were provided at USCA along with free educational resources and teacher guides for classroom presentations. In addition, each participant received 2 \$25 gift cards to help cover travel expenses.

SSNI is led by Citizens for Nuclear Technology Awareness (CNTA), a local non-profit organization whose mission is to provide education and information on nuclear subjects for the public. Other sponsors include the American Nuclear Society – Savannah River and Columbia, AREVA, Atkins, Georgia Power Co. /Plant Vogtle, SCE&G, SRSCRO, SUNRISE Universities, USC Aiken, and the Aiken Rotary.



SSNI at Plant Vogtle Units 1 and 2

Benjamin Memorial Scholarship Awards for the 2016-2017 Academic Year

The Savannah River Section of the American Nuclear Society (ANS) has awarded three Benjamin Memorial Scholarship awards to Central Savannah River Area high school graduate to help defray college costs toward their first year of college study. The awards are provided in the memory of its long-time member, Dr. Richard (Dick) Benjamin (1925-2013) to students expressing academic and career interests in science, technology, engineering, and mathematics (STEM) fields, and particularly those wishing to major in a field associated with nuclear science and technology.

The \$2,000 Scholarship winners are Katherine Birdsong of North Augusta (The McFarland School), Daniel Davidson of North Augusta High School, and Xiaoyi Claire Long of Westminster Schools of Augusta, the Scholarship's first international awardee. The near-term plans of the three Scholarship winners are in keeping with the core areas intended for support through the Benjamin Memorial awards, with Ms. Birdsong beginning study in Biology at Belmont University in Nashville, Tennessee, Mr. Davidson planning to study Engineering at Clemson University, and Ms. Long planning to study Engineering at the Worcester Polytechnic Institute, in Worcester, Massachusetts.

The Scholarship winners and their parents were recognized at a Savannah River Section luncheon meeting held July 9, 2016 at Augustino's Restaurant in Augusta. Tracy Stover, Secretary of the Section, distributed the Scholarship certificates and checks to the students and to Ms. Long's host parents, Dana and Paul McElmurray of North Augusta.

In addition to the Scholarship awards, runner-up, or Commendation Awards will be awarded to the following Central Savannah River Area graduates: Zachary Fields (Midland Valley High School) attending USC-Aiken, Hannah McFall (home-schooled) attending the University of

Alabama – Huntsville, Caroline Schaade (North Augusta H.S.) attending Mississippi State University, Caroline Spencer (Lakeside H.S.) attending Georgia Southern, and Christopher Spencer (Lakeside H.S.) also attending Georgia Southern.

Dick Benjamin was a mentor to many nuclear science and technology professionals in the Aiken-Augusta area for over four decades. He received his B.A. in Engineering from Lamar University, M.S. in Nuclear Engineering from Southern Methodist University, and earned his PhD in Nuclear Physics from the University of Texas in 1965. After a three-year post-doctoral study at the Swiss Federal Institute of Technology, Dick came to the Augusta area in 1968 with the acceptance of employment at Savannah River Laboratory (now Savannah River National Laboratory). He worked in many technical areas during his Savannah River Site career, most notably being the Reactor Physics, Atmospheric Technologies, and Advanced Planning Groups, and the Accelerator Production of Tritium Project. During his long and illustrious ANS career, he was active with the Fuel Cycle and Waste Management and Environmental Sciences Divisions, and was a chair for each division. In June 1992, Dick represented ANS at the first United Nations Framework Convention on Climate Change held in Rio de Janeiro.



2016-2017 Benjamin Scholarship Award Winners (left to right): Daniel Davidson (North Augusta High School), Katherine Birdsong (The McFarland School), and Dana and Paul McMurray (accepting for Xiaoyi Claire Long of Westminster Schools of Augusta).

American Nuclear Society – Savannah River Section Local Section Application

Directory Information:

Last Name: ___ First Name: ___ M.I.: ___ Suffix: ___

Mailing Address: ___

City: ___ State: ___ Zip: ___

Email Address: ___ (used only for newsletter distribution, notification of meetings, and requests for local activity support)

Phone: ___

Occupation: ___ Employer: ___

Location: ___

Job Title: ___

Education Completed: Degree Year Graduated Course of Study

BS ___ ___

MS ___ ___

PhD ___ ___

Section Information:

Are you a National ANS Member? Yes No

If Yes: To what do you belong?

- | | | |
|--|---|---|
| <input type="checkbox"/> Accelerator Applications | <input type="checkbox"/> Biology & Medicine | <input type="checkbox"/> DD&R |
| <input type="checkbox"/> Education & Training | <input type="checkbox"/> Decommissioning & Environmental Sciences | |
| <input type="checkbox"/> Fuel Cycle & Waste Management | | |
| <input type="checkbox"/> Fusion Energy | <input type="checkbox"/> Human Factors | <input type="checkbox"/> Isotopes & Radiation |
| <input type="checkbox"/> Material Science & Tech | <input type="checkbox"/> Mathematics & Computation | <input type="checkbox"/> Criticality Safety |
| <input type="checkbox"/> Nuclear Installation Safety | <input type="checkbox"/> Operations & Power | <input type="checkbox"/> Radiation Protection & Shielding |
| <input type="checkbox"/> Reactor Physics | <input type="checkbox"/> Robotics & Remote Systems | <input type="checkbox"/> Thermal Hydraulics |
| <input type="checkbox"/> Aerospace | <input type="checkbox"/> Young Members | <input type="checkbox"/> Comp Medical Physics |
| <input type="checkbox"/> Nuclear Nonproliferation | | |

Are you a National Committee Member? Yes No

Are you interested in working on a local committee? Yes No

(e.g.: Executive Committee, Membership Committee, Scholarship Committee, Topical Committee, Outreach Committee...)

Interests: ___

Comments: ___

***Membership is free, and you do not have to be an ANS National member
Please forward completed application to ans.savannahriver@gmail.com***