

# The Neutrino

American Nuclear Society - Savannah River Section P.O. Box 7001, Aiken, SC 29804 Newsletter - February 2014

http://www.ans-sr.org and http://local.ans.org/savriv/

#### 2013 – 2014 ANS-SR Leadership

## Executive Committee (EC) EC Section Officers:

Chair

Kevin O'Kula, URS

#### Vice-Chair

TJ Corder, Southern Company
Treasurer
Sid Keener

Secretary

Peter Shaw, Westinghouse

## Executive Committee and Liaisons:

**Arrangements Chair** Amanda Bryson, MOX Services

**Education Outreach Chair** Bob Eble, AREVA Federal Services

> Membership Chair Justin Marsh, CBI

**Programs Chair** Carl Mazzola, CBI

**Publications Chair** Jay Bilyeu, Retired DOE/SR

**Topical Chair** Kevin O'Kula, URS

Vogtle Liaison
Phil Cupp, Southern Company

**At Large Members** 

Mel Buckner, Retired SRNL Dick Benjamin, In Memoriam (1935-2013)

> Past Section Chair Tinh Tran, URS

Administrative Assistant

Diane Shelton

(ans.savannahriver@gmail.com)

#### The ANS Savannah River Section at Fifty - A Time for Renewal

There couldn't have been more a fitting venue and topic for the Savannah River Section's fiftieth anniversary of its very first meeting in January 1964 than our meeting and program at the Ruth Patrick Science Education Center at USC-Aiken. The discussion/interactive event presented by Bill Wabbersen and Mindy Mets that night was "Nuclear Science and Technology Public Information and Outreach". This event featured just a sample of the many ways the Section reconnects at the local level through person-to-person interaction with the ultimate objectives of "...advancement of science and engineering relating to the atomic nucleus, and of allied sciences and arts, and the integration of the scientific disciplines constituting nuclear science and technology" as stated in our ANS charter issued in November 1963. We may articulate this vision differently nowadays, but the general theme is the same – advancing the public's understanding of the role of nuclear science and technology, and enhancing professional involvement. So how do we improve over what was done by ANS Section members locally to result in being recognized as having ANS's Best Large Section Public Information and Program?

As the Section Chair for 2013-2014. I would like to see us build from continued prominence in Public Information (key folks - Bob Eble, Bill Wabbersen, Sid Keener and Mel Buckner) and Programs (Carl Mazzola, Amanda Bryson and Ben Cross) with recent successes such as the PSA 2013 meeting in Columbia in September, and the achievement of the 501(c)(3) (heavy lifting by Jay Bilyeu and others) tax status with the federal government. Here are the three goals for the Section, in short, to renew, reactivate and reenergize. Specifically, (1)Renewing our\_Scholarship giving – We are once again promoting education in the engineering and science with scholarship giving for graduating high school seniors in the CSRA. Anyone can assist in this endeavor through monetary contributions of any level. (2) Reactivating the SR Section website -After significant overhaul by TJ Corder and Tinh Tran, the Section's website is now ready for primetime. Come visit us at: (http://local.ans.org/savriv/), or at one of the social media addresses for upcoming events and to connect with all things nuclear. (3) Reenergizing the section to host national and international ANS Conferences – SR will host the April 2016 TRITIUM conference in Charleston, SC only two and half years since the spectacular 300-attendee PSA 2013 meeting. We will compete for these meetings on a more regular basis as these are the financial engine for the things we ought to do in promoting nuclear science and technology.

At the end of 2013, we spent time commemorating the life and contributions of Dick Benjamin as mentor, leader and friend. In Dick's memory, join with me and this ANS section for opportunities for professional development, for serving the nuclear community by creating a forum for sharing information and advancements in technology, and by engaging the public and policy makers through communication outreach.

Get reacquainted with one of ANS's best local sections. Check out this issue of the Neutrino and see what we've done over the last year and what's going on now. Let's renew our efforts locally, recommit to the goals of ANS that have stayed true since 1963, and keep the CSRA nuclear knowledgeable.

Kevin O'Kula, ANS Savannah River Chair (2013-2014)

#### RICHARD (DICK) BENJAMIN IN MEMORIAM • 1935-2013



After retirement from the Savannah River Site, Dick had more time to enjoy family, travel, and run Wine World with Sally, and business partners.



Dr. Benjamin receives a section recognition award from ANS Savannah River Chair Jim Bazley in 2010.

In December, we lost Richard ("Dick") Benjamin, a colleague, nuclear science professional and longstanding member who was a major contributor to ANS on both national and local levels. Dick served many terms on the Executive Committee and he was the Retiree Liaison Chair for several years. Dick and his wife, Sally, graciously hosted Executive Committee meetings at Wine World, a location that was convenient for all members. Dick encouraged many nuclear professionals to join ANS and was a mentor for younger members of the Section. Since 1999, Dick, along with Sally and Terry Wick, coordinated and hosted the Annual Holiday Dinner every December. The fifteenth edition of this event took place on December 2, 2013.

Dick was born in Albany, New York in 1935, but spent most of his youth in Dallas, Texas. He received his BA in Engineering from Lamar University and was a member of Sigma Nu Social Fraternity. During his schooling, he worked at Los Alamos National Laboratory. He earned his Master's degree in Nuclear Engineering from Southern Methodist University, and earned his PhD in Nuclear Physics from the University of Texas in 1965. He and Sally were wed in 1961, and lived in Zurich, Switzerland for three years while Dr. Benjamin did a post-doc at the Swiss Federal Institute of Technology. They moved to Augusta in 1968, when Dick was offered an engineering job at Savannah River Laboratory (now SRNL). He worked in many technical areas during his SRS career, most notably being the Reactor Physics, Atmospheric Technologies, and Advanced Planning Groups, and the Accelerator Production of Tritium (APT) Project. During his illustrious career, he was active with the Fuel Cycle and Waste Management and Environmental Sciences Divisions. As Chair of ESD in June 1992, Dick represented ANS at the first United Nations Framework Convention on Climate Change held in Rio de Janeiro.

Dick was a true renaissance man. As noted by the Augusta Chronicle in a 2008 article, he was a nuclear physicist by day as a professional at SRS but a wine connoisseur by night. In addition to being the primary member of the group starting Wine World in 1973 in North Augusta, he was co-director of the local Tasters Guild, a wine and food appreciation society. Dick was active with the American Wine Society, a member of the Society of Wine Educators, and judged wines in national and international competitions. He was also a supporter of the opera in Augusta and enjoyed skiing, hiking and hunting.

In Dick's memory, Sally and family have requested memorials may be made to the Savannah River Section of the American Nuclear Society Scholarship Fund (American Nuclear Society – SR Section, P.O. Box 7001, Aiken, SC 29804).

#### Introduction

It has been a long time since the last issue of the Neutrino, and our Section has been very active. Because there is a large amount of information to report, this issue will convey just the highlights of the past year. (your Ed.)

#### **JANUARY TECHNICAL MEETING**

#### MRS. SACHIKO MCALHANY

#### "PROGRESS IN THE U.S. PLUTONIUM DISPOSITION PROGRAM"

ANS-SR hosted a technical dinner meeting on January 15, 2013, at the Bonefish Grill in Augusta, GA. Mrs. Sachko McAlhany substituted for the scheduled speaker, Mr. Peter (Pete) Hanlon, Associate Deputy Administrator for the National Nuclear Society Administration's office of Fissile Material Disposition. Mrs. Sachiko McAlhany currently serves as a Senior Technical Advisor, in the National Nuclear Security Administration's (NNSA) Office of Fissile Materials Disposition and is recognized throughout the Department of Energy (DOE) as an expert on plutonium operations and storage. McAlhany presented NNSA's new proposed strategy for disassembling nuclear weapons pits and providing plutonium metal and oxide to the MOX Fuel Fabrication Facility under construction at the Savannah River Site, and the efforts with commercial nuclear fuel fabricators to market MOX fuel to utilities.





Sachiko McAlhany

#### FEBRUARY TECHNICAL MEETING

#### MIKE GOFF - "NUCLEAR - A BRIGHT FUTURE?"

ANS-SR hosted a technical dinner meeting on February 7, 2013, at the Red Bowl in Aiken, SC. This presentation provided a view of the future for nuclear technology by reviewing the current landscape in the United States including political and public perspectives as well as technical bases. It also addressed challenges that affect the deployment of nuclear technology, both domestically and internationally.

**Speaker**: *Mike Goff is* a program manager at Idaho National Laboratory (INL). In his 20+ years at INL and Argonne National Laboratory-West, he has served in a number of roles including: Deputy Associate Laboratory Director for Nuclear Science and Technology, Technical Integrator for the Department of Energy's Fuel Cycle Research and Development Program, Senior Technical Advisor to DOE Assistant

Secretary for Nuclear Energy, and Director of Fuel Cycle Programs. He has been active in the American Nuclear Society since joining as a Student Member at Georgia Tech. Mike's degrees include a Bachelor and Master of Science in Nuclear Engineering and a PhD in Nuclear Engineering from Georgia Tech.





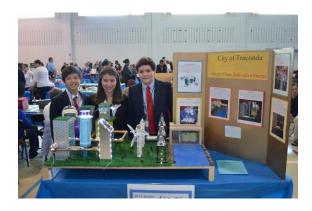
#### **FUTURE CITY**

Sid Keener, Stephanie Zejewski, and Bob Eble participated in the Future City competition. It was the 10<sup>th</sup> year of competition in Aiken. It has grown to 50 entries, up from 35 last year. The entries were to focus on waste water collection and treatment systems. Many used hydro, solar, and wind generation for their energy needs. Many used public transportation powered by electricity. A few used nuclear power that used conventional designs.

The best energy system was St. Mary's Traconda. They used hydro, solar and wind with superconductor electrical distribution. They were the only entry that estimated the power production in megawatts from each source with the majority coming from hydro. They also had the best presentation on energy systems.

Second place was Tutendo, and third was Crystal Waters both from WA Perry Middle School.

We discussed nuclear with several of the teams, and they did not use nuclear due to the hazards of accidents. When asked what those hazards are and they responded that several hundred people were killed as a result of the accident in Japan. When told that no one was killed by the radiation only by the tsunami, they were a bit shocked. More evidence that students rely on the media to get their risk information. More evidence that we need to get out to the schools to tell the real story.







Sid Keener with the winners

#### **MARCH TECHNICAL MEETING**

## MICHAELE (MIKEY) BRADY RAAP, PACIFIC NORTHWEST NATIONAL LABORATORY, AND DR. JEFF GRIFFIN, SAVANNAH RIVER NATIONAL LABORATORY

## "US DEPARTMENT OF ENERGY LABORATORIES AND THE REMEDIATION OF FUKUSHIMA-DAI-ISHI"

The Savannah River National Laboratory (SRNL) and Pacific Northwest National Laboratory (PNNL) have reached a contractual agreement with Tokyo Electric Power Company (TEPCO) to provide technical assistance for the remediation of TEPCO's Fukushima Daiichi Nuclear Power Station. The DOE complex and specifically these two laboratories have significant experience in nuclear facility decontamination and decommissioning from nuclear material production remediation and cleanup efforts. The SRNL and PNNL collaboration offers a portal for TEPCO to access broad science and technology talent throughout the entire DOE national laboratory system. The presentation included the challenges with the environmental remediation of the Fukushima Dai-ichi site and relevant DOE experience (primarily at Hanford and the Savannah River site) that can help Japan meet these challenges. **Location:** The historic Enterprise Mill, in Augusta, GA. **Date**: March 18, 2013.





Ben Cross Jeff Brault

# MAY TECHNICAL MEETING DR. WENDY KUHNE "THE NATIONAL CENTER FOR RADIOECOLOGY (NCORE) - RADIOECOLOGY IN THE 21ST CENTURY"

ANS-SR hosted a technical dinner on May 2, 2013, at Bobby's BBQ in Burnettown, SC. Dr. Wendy Kuhne is a Senior Scientist in the Environmental Analysis, Environmental Dosimetry Group at Savannah River National Laboratory at SRS and the current Director of the newly formed National Center for Radioecology (NCoRE). Dr. Kuhne described the need and role of this center.





Ben Cross (Program Chair) and Tinh Tran (Chairman)

## MAY TECHNICAL MEETING PLANT VOGTLE UNIT 3 AND 4 CONSTRUCTION MIKE MCCRACKEN

A technical meeting, lunch, and tour was held at Plant Vogtle Unit 3 and 4 Construction Sites on May 30, 2013. Mr. McCracken, Plant Vogtle Communications Coordinator, described the design of the AP1000 Reactors and a tour of the construction site was provided.





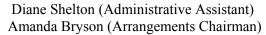
#### **JUNE TECHNICAL MEETING**

#### MS. BONNIFER BALLARD

#### "CHANGE THE CONVERSATION - TELLING THE NUCLEAR STORY"

ANS-SR hosted A technical dinner meeting at Crums in Augusta, GA on June 13, 2013. Ms. Bonnifer Ballard is Director of Communications and Outreach and the Director of the Center for Nuclear Science & Technology Information at the American Nuclear Society (ANS). As Director, Ms. Ballard leads a team of 6 professional staff members and is responsible for working with ANS members and other likeminded organizations to increase awareness and understanding about nuclear science and technology. She is the primary liaison between the communications and outreach staff and the Society's Public Information and Public Policy committees. Her team manages several other committees including Local Sections, Professional Divisions, Scholarship, NEED, and Student Sections. The presentation provided an update on what ANS is doing with its evolving communications and public education efforts, including a virtual tour of the Center's new public website, and ANS resources available for members to use in local outreach were highlighted.







Bonnifer Ballard

#### IRS 501(C)(3) EXEMPTION

The IRS allows certain organizations to be tax exempt if they meet certain criteria. There are several exempt categories. 501(c)(4) (or c4) is for political organizations and is the category that has made the news recently. c6 is for trade organizations, and this is what our Section has been since the 1970's. One category, c3, is special in that donors can deduct their donation from their income tax (think churches, charities). Our parent, ANS-HQ, is a c3, and approximately one half of the other local sections are c3. Our section applied for c3 status and was notified on August 7, 2013 that the IRS had determined that we are a c3 organization. Furthermore, the exemption applies back to our application date, April 23, 2012. As the IRS said in their letter "Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2016 or 2522 of the code." We could not have gotten this without Bob Eble and his team's work. In 2012 our Section spent about 1000 member hours providing over 10,000 public education hours!

#### **MERITORIOUS AWARDS**

ANS-SR was selected for two of the 2013 Large Section Meritorious Awards!

- Best Meetings and Programs
- Best Public Information



Thank you to everyone who helped this past year to make our local section an excellent section. Your hard work as a Section made it possible!

#### **PSA 2013**

The thirteenth edition of the American Nuclear Society (ANS) International Topical Conference on Probabilistic Safety Assessment and Analysis, PSA 2013, was conducted from September 22-27, 2013 at the Marriott in Columbia, South Carolina. PSA 2013 was sponsored by ANS and its Nuclear Installations

Safety Division (NISD), and hosted by the Columbia and Savannah River Sections of ANS. It was our first national meeting sponsorship in over nine years. Tinh Tran was Publications Chair and Kevin O'Kula served as Assistant Technical Program Chair. Conference statistics showed the following:

- 293 (Attendees/Guests) + 21 (Administrators + Organizing Committee Staff) = 314 participants
- 65 sessions distributed in 35 tracks
- 223 Presentations (Traditional Paper, Poster, and Presentations)
- Five Panel Sessions
- Five workshops/training sessions (61 attendees)
- 22 nations represented (~30% international participants)
- Twelve industry sponsors.



Carl Benhardt and Mel Buckner score grad student papers.

The conference was a huge success both as a high-quality technical exchange of PSA information and as a profit-making activity for the Savannah River Section. We will be the host section for TRITIUM 2016 in Charleston, in April 2016.



Registration Table at PSA 2013 (L to R) Amanda Bryson, Sid Keener, Jay Bilyeu, Rabiyyah Malik-Jones, and Melvin Tyler

#### **SEED**

Our Section again supported the Science Education Enrichment Day (SEED) program at USC Aiken in October. We were flanked by the Health Physics Society with Wendy Jordan and the SR-YGN with Maria Kriz



Sid Keener demonstrates radioactivity

The following note was received from John Hutchens.

"On behalf of the Ruth Patrick Science Education Center and USC Aiken, I thank you for participating in the 28th Annual S.E.E.D. Your dedicated service to the CSRA community of young learners and their families makes a huge difference in the quality of STEM education we can offer. The impact of your

efforts was felt by over **4100 people** that attended S.E.E.D. this year. Please convey our gratitude to all of the exhibitors that participated in your exhibit.

The following summary was provided by Tinh Tran.

The event was a huge success with a record breaking 4100 attendees. We talked to kids and their parents about usefulness of radioactive isotopes used in medicine, energy source, and everyday household goods. We ask the attendees a trivia question of what is the most common naturally occurring radioactive element. We talk about what it means to be considered 'clean energy' in relation to the carbon foot print. We had radioactive sources (smoke alarm, rocks, fiesta ware, etc.) and Geiger counters for hands on measurements. We provided explanation of low and high energy radiation. We gave out radioactive marbles, stickers, and information brochures provided by ANS HQ. The power generation foldout and the mock nuclear pellets were a big hit. The kids also enjoyed navigating the toy car radiation detection hunt.

Additional pictures of SEED can be seen at the following link.

http://www.flickr.com/photos/98584094@N04/sets/72157636624467706/

#### **NOVEMBER TECHNICAL MEETING**

#### DONALD R. HOFFMAN

#### "MY VISION FOR ANS - INITIATIVES AND STATUS"

The ANS-SR November 5, 2013, meeting commemorated the 50th Anniversary of the American Nuclear Society-Savannah River Section's receipt of its charter on November 21, 1963. Our guest speaker was, 2013-2014 ANS President Donald R. Hoffman (President/CEO of EXCEL Services Corporation).

Mr. Hoffman's presentation was entitled "My Vision for ANS, Initiatives and Status". He presented twelve initiatives for making ANS a more vital and relevant professional society. It included an extensive review of the strategic planning that was performed when his term began and the extensive changes that are being made in how ANS conducts its business.

It's interesting to note that the first section meeting was held January 13, 1964, at the Town House Hotel in Augusta, GA. Dr. Paul C. Aebersold, Director of Isotopes Development, USAEC, spoke on "The Local Nucleonics Society – Protection Against Nuclear Narrowness". Of the 44 charter members from the founding of the section, we were fortunate to

have Bob Overman in attendance during our meeting with President Hoffman.



Chair Kevin O'Kula, left, accepts a certification award from American Nuclear Society President Donald Hoffman on the 50th anniversary of the section's founding. (Aiken Standard)



ANS SR Section's Gold Certificate presented by President Hoffman on November 5, 2013.

#### **TRIVIA**

ANS-SR has been co-hosting a trivia event with Savannah River Young Generation in Nuclear at the Aiken Brew Pub in downtown Aiken, SC from 6-8 pm. No reservations required; and you pay for what you eat and drink. The events have been fun, and prizes are awarded to the winning teams.



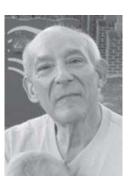




Amanda Bryson and Bob Eble

#### STANDARDS SERVICE AWARD

This award was presented to Carl A. Mazzola, ANS member since 1982 and environmental manager at Shaw Environmental, in recognition of his work to develop, maintain, and facilitate the issuance of numerous meteorological and natural phenomena standards for nuclear facilities and his service to ANS as chair of the Nuclear Facilities Standards Committee for the past seven years. (ANS News November/December 2013)



#### **PANDORA'S PROMISE**

ANS Members participated in the public presentation of the film "Pandora's Promise" at the Etherredge Center, USC Aiken Campus in October. This event was hosted by Areva and CNTA. The film asks whether the one technology we fear most could save our planet from a climate catastrophe, while providing the energy needed to lift billions of people in the developing world out of poverty. In his provocative new film, Robert Stone tells the intensely personal stories of environmentalists and energy experts who have undergone a radical conversion from being fiercely anti to strongly pro-nuclear energy, risking their careers and reputations in the process. After showing the film, a panel answered questions from the audience. Bob Eble (center) was on the panel.



#### **OUTREACH**

Our Section has a very active Outreach Program under Bob Eble. Our members visit schools to make presentations on nuclear subjects and support special events. The following summary of one event was provided by Bob Eble.

"I participated in an outreach event on Tuesday at Chukker Creek Elementary school in Aiken. Michele Huguet and her son Arnaud were also there. Arnaud went to Chukker Creek 12 years ago and recently graduated from Ga. Tech in civil engineering. Arnaud spoke about his experience at Chukker Creek and Kennedy Middle School and the influence his teachers had on his decision to pursue a degree in engineering. Michele provided a presentation on radiation basics and I covered the landmine experiment and the Chart of the Nuclides. 47 students



from 2 of Ms. Coffey's 4th grade classes participated. The classes were combined into one for 1+1/2 hours plus lunch. The students were well behaved and attentive. Natalie, one of the more active students, found all of the isotopes on the chart and showed the other students how to find them. She also asked me at lunch "how does suntan lotion keep you from getting sunburn?" Another student asked if Plutonium could be used to power a car. We also discussed global warming and carbon capture. One student asked if using refrigerant could be used to capture the coal effluent like a mirror in the bathroom. All students were provided a glass bead made with uranium and an ANS sticker, "I am radioactive, and you are too!"

#### **WORKFORCE DEVELOPMENT DAY**

Nearly 300 high school seniors, college students, and educators arrived early to the Kroc Center in Augusta, GA on Tuesday, Oct 22. They came with enthusiasm and registration tickets in hand to be part of Nuclear Workforce Development Day. Twenty-five organizations including nuclear employers, professional organizations and educational institutions were ready to greet the students with interactive exhibits, breakout sessions and career information. For more information see:

(http://archive.constantcontact.com/fs106/1103406220922/archive/1115134777306.html)



Sid Keener providing information on nuclear careers

#### **DECEMBER HOLIDAY DINNER**

ANS SR, in partnership with the Health Physics Society–Savannah River Chapter and the Southeast Chapter of the Institute of Nuclear Materials Management, again jointly hosted a holiday celebration of food and wine on Monday at the North Augusta Community Center, North Augusta, South Carolina.

#### **ACTIVITY TIME ANALYSIS**

This is excerpted from our IRS exemption request letter.

The following table provides a time analysis of the Section's activities for both members and non-members. <u>Public education activities account for all but 3% of our member's time</u>. Our public education activities reach approximately 5,000 members of the public each year. Roughly 1000 member hours result in 10,000 public education hours.

The first column in the table below is the **Activity**, the second column is the number of **events** per year, the third column is how many **members** participate in each event, the forth column is how many **hours** each member spends on each activity, the fifth column (**Member Hours**) is a multiple of columns two thru four, and the sixth column calculates the **percent** of the member time this activity represents.

The seventh column is how many **public participants** there are at each event, the eighth column is how much **time** each public member spends engaged with an ANS member, the ninth column (**Public Hours**) is a product of columns two, seven, and eight. The tenth column calculates the **percent** of the public time this activity represents.

		Number				Number			
	# of	of		Member		of		Public	
ACTIVITY	<b>Events</b>	Members	Hours	Hours	Member %	Public	Hours	Hours	Public %
Presentations to schools									
Langford middle	1	2	2	4	0%	80	1	80	1%
North Augusta Middle	1	2	4	8	1%	120	1	120	1%
South Aiken HS	1	1	2	2	0%	80	1	80	1%
Allendale-Fairfax HS *	1	1	5	5	1%	22	5	110	0
Aiken Middle *	1	1	8	8	1%	250	8	2000	0
Lakeside Middle *	1	1	8	8	1%	250	8	2000	0
Aiken HS Career Night	1	3	3	9	1%	300	2	600	6%
Jim Dyess Day	1	3	4	12	1%	150	4	600	6%
Boy Scouts Nuclear Merit									
Badge *	1	1	8	8	1%	45	2	90	1%
Teacher Workshops ***	2	3	16	96	10%		8	1216	11%
SEED	1	5	5	25	3%	1000	0.25	250	2%
CSRA College Night	1	4	3	12	1%	500	3	1500	14%
Future Cities	1	4	4	16	2%	100	4	400	4%
Scholarships	25	1	1	25	3%	300	0.08	625	6%
Technical Lectures	8	24	2	384	41%	15	2	240	2%
Interactive Nucleus	1	1	40	40	4%	1960	0	490	5%
Journey to the Center of									
the Atom Workshop *	2	1	7	14	2%	90	1	180	2%
Trivia Night	4	7	2	56	6%	21	2	168	2%
Advertising Meetings	1	1	50	50	5%			0	0%
<b>Executive Committee</b>	8	7	1	56	6%			0	0%
Social (December)	1	31	3	94	10%	28	3	84	1%
				0	0%			0	0%
Total		104	178	932	100%	5387	56	10833	100%

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Notes:

Does not include preparation and travel time

Scholarship Program is in suspension

Interactive Nucleus Event and Adverting Meetings number= 1 is for math purposes

Advertising Meetings (Administrative Assistant) includes Email, Newspaper, Taking Reservations, buying supplies

College night total attendance is 7000 -

http://www.srs.gov/general/outreach/edoutrch/coll night.htm

Social includes planning time and 1 hour for Treasurer time

- \* CY2012 data
- \*\* January 2012 (1 workshop, January 2013 (2 Workshops)
- \*\*\* Two Teachers Workshops in FY 2012 (Aiken County, and Allendale County), Four Teacher Workshops in FY 2013 (Columbia County, Allendale County, Atlanta, and Burke County)
  Interactive Nucleus 1460 Students interacted with the display during school visits to RPSEC, and 500 students interacted with the display during SEED (15 minute average interaction time)

#### JOIN ANS-SR on Facebook, Twitter and YouTube

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

TWITTER: <a href="http://www.twitter.com/ANS">http://www.twitter.com/ANS</a> SR (note the underline between ANS and SR)

YouTube: <a href="http://www.youtube.com/user/ANSSavannahRiver">http://www.youtube.com/user/ANSSavannahRiver</a>

### American Nuclear Society – Savannah River Section Local Section Five Year Membership Application (2014 – 2018)

Directory Information:
ast Name: First Name: M.I.: Suffix:
Mailing Address:
City: State: Zip:
mail Address: (used only for newsletter distribution, notification of meetings, and requests for local activity support)
hone:
Occupation: Employer:
ocation:
ob Title:
ducation Completed: Degree Year Graduated Course of Study  BS  MS  PhD
Section Information: Are you a National ANS Member?  Yes No
Accelerator Applications  Biology & Medicine  Education & Training  Fusion Energy  Material Science & Tech  Nuclear Installation Safety  Reactor Physics  Aerospace  Nuclear H2 Production  Biology & Medicine  Environmental Sciences  Environmental Sciences  Fuel Cycle & Waste Mgmt  Isotopes & Radiation  Criticality Safety  Radiation Prot & Shielding  Thermal Hydraulics  Comp Medical Physics  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