

## **SRS** Heritage Foundation

## NEWSLETTER

September 2010

# NEUTRINO CELEBRATION...A LITTLE PARTICLE MAKES A BIG HIT IN AIKEN

The Neutrino Celebration on August 27 focused the spotlight on the elusive particle whose existence was confirmed at the Savannah River Plant in 1956. The discovery was noted locally and internationally at the time and resulted in a Nobel Prize being awarded to one of the co-discoverers in 1995. However, until August 27, no markers accessible to the public commemorated the discovery and only a few "old-timers" remembered the historic event.

The Neutrino Celebration was designed to commemorate the 1956 confirmation of the neutrino by a team from Los Alamos headed by Dr Fred Reines and Dr Clyde Cowan. The neutrino was calculated to exist by Wolfgang Pauli in 1931 and was named "neutrino... little neutron" by the Italian physicist, Enrico Fermi. The Reines-Cowan, team, dubbed the "Poltergeist Project", originally planned to use an atomic bomb blast to generate a source of neutrinos but later switched their focus to large production reactors.



Their work at Hanford was inconclusive but soon after reactor startup, they came to Savannah River to continue their quest. Their persistence was rewarded when they confirmed existence of the neutrino in 1956. Dr Cowan died in 1974 but Dr Reines was awarded the Nobel Prize in Physics in 1995.



The Neutrino Celebration was an all-day event designed to celebrate the discovery of the neutrino and recognize the Nobel Prize...the only Nobel Prize in science awarded for work done in South Carolina. The Celebration was sponsored by the SRS Heritage Foundation, Citizens for Nuclear Technology Awareness, the University of South Carolina Aiken and the American Nuclear Society in conjunction with the 175th anniversary of Aiken. The Celebration consisted of 3 separate activities.

A state historical marker was unveiled at 10am in front of the Greater Aiken Chamber of Commerce. The marker is adjacent to the eastbound lane of Richland Ave with the western

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# CURATION FACILITY WORK IN PROGRESS



### THANKS TO OUR SRS HERITAGE FOUNDATION SPONSORS 2009/2010

The SRS Heritage Foundation is a relatively new organization but, thanks to our strong base of supporters, we are growing steadily. We are particularly pleased that several organizations have such faith in our future that they have made substantial financial contributions to get our programs started. Among these supporters are:

#### **Sponsors**

Savannah River Nuclear Solutions

#### **Corporate Members**

Savannah River Remediation, LLC Nuclear Fuel Services

#### **Business Member**

Security Federal Bank

A special thank you to the individual members for their continued support the Foundation

JOIN THE
SRS HERITAGE
FOUNDATION
TODAY!!
WE NEED
YOUR SUPPORT!

The contract for completion of the SRS Curation Facility has been awarded and the contractor has been on site for 2½ months. The almost \$4 million restoration project was funded by the Recovery Act and will finish adapting Building 315-M to meet national standards for preservation and curation of historic artifacts, thereby



achieving a key goal of the 2004 SRS Cultural Resources Management Plan. The Curation Facility will house both the SRS Cold War Artifact collection and collections of the Savannah River Archaeological Research Program. Work currently is

ahead of schedule and beneficial occupancy of the 27,000 square foot building is planned for January 1, 2011. Artifacts will be relocated into the Facility in January.



## FOUNDATION SETTLED IN NEW OFFICE

The SRS Heritage Foundation has moved into our new office in the Greater Aiken Chamber of Commerce building at 121 Richland Ave. NE. The office is furnished and looks very professional although some of the computer equipment is not yet installed. The office is open for business and the Foundation is benefiting from synergism with Chamber staff and visitors. Initial plans are to staff the office part-time with volunteers until people get used to finding us there. Drop in to see us when you are in the neighborhood.

The new Foundation address is: SRS Heritage Foundation

PO Box 2226 Aiken, SC 29802

The new office Phone# is: 803-622-0116 The new office email is: srsheritagefoundation@gmail.com

### C AREA FEASIBILITY STUDY

The feasibility study of permitting public access to C Reactor Area is nearly complete. The draft report by Kottel and Associates is circulating for approval at SRS. The nation-wide study found substantial national interest in visiting the reactor area. Locally, residents were very supportive of SRS tours that are being offered currently but expressed a strong interest in "getting off the bus". Occasional tours of the reactor area are being considered. Stay tuned.

### ELLENTON TRAIL SITE USE PERMIT APPROVED

A major step toward the Foundation goal of conducting guided tours through the site of the displaced community of Ellenton was accomplished with approval of the Site Use Permit for the Ellenton Heritage Trail. Although several details remain to be resolved, approval of the Site Use Permit represents significant progress toward making the Trail a reality. Jim Iwert and the members of his team are continuing to persevere in their efforts to recognize the sacrifices made by residents of Ellenton and the other displaced communities.



### HERITAGE CORRIDOR CLOSES DISCOVERY CENTERS

There's good news and bad news about the Discovery Centers operated by the South Carolina National Heritage Corridor. The bad news is that budget shortfalls have forced the Corridor to close Heritage Centers, including those in Blackville and Edgefield. Loss of these excellent facilities is a blow to our history and will impact heritage tourism at a time when heritage tourism is an engine of economic recovery.

The good news is that operation of the Edgefield Discovery Center has been taken over by the Edgefield Historic Society and the Edgefield Theatre Company. The local groups have entered into a cooperative agreement for better utilization of the Center and have converted some of the exhibit space to a very comfortable "mini-theatre". Original and established plays will be presented in the theatre during the inaugural season in 2011. In addition, a series of films with ties to the local area are being sponsored. The first such film, "Displaced" was shown at the Discovery Center August 28<sup>th</sup>. Walt Joseph led the discussion following the film. Congratulations to Edgefield for their enterprise.

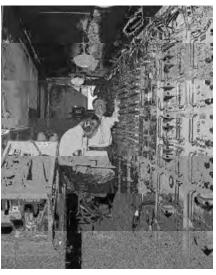
The Foundation has a limited number of Neutrino Celebration tee shirts available. These commemorative shirts are tan ultra-cotton with black lettering and include the Feynman diagram and date on the front and sponsor logos on the back. We have a few small and medium shirts and a better supply in large, extra-large and extra-extra large. Quality shirts commemorating a historic event...only \$15 while they last. Call CNTA at 649-3456 or the Foundation at 622-0116.







A few historic photos from the Los Alamos National Lab archives showing some of the equipment used to determine the existence of the neutrino.





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Historical marker unveiling, L-R David Jameson, Walt Joseph, Ronnie Young and Fred Cavanaugh

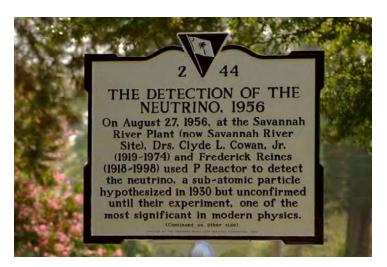
face commemorating the neutrino and the eastern face celebrating the Nobel Prize. A replica of the plaque presented to SRS by the Atomic Energy Commission to commemorate confirmation of the neutrino also was unveiled during the ceremony. About 50 guests attended the unveiling event and enjoyed coffee and pastry with an opportunity to visit the new Foundation office in the Chamber of Commerce Building.

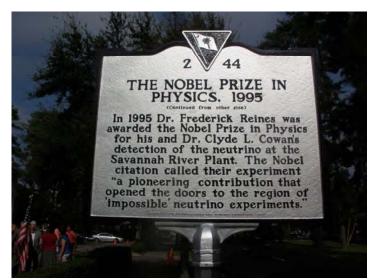
At 1pm, a series of presentations in the Etherredge Center at USCA were moderated by Dr Lester Welch. This session opened with a film of a lecture made by Dr Cowan at the US Naval Academy shortly before his death. The film was restored by CSRA Multimedia with funds supplied by the Heritage Foundation. The film was followed by a panel discussion of reminiscences and anecdotes, chaired by Dr Henry Gurr, which included several participants in the neutrino experiments, including Elizabeth Cowan Riordon, daughter of the late Dr Cowan. The afternoon sessions concluded with a presentation on "Neutrinos in Astrophysics" by Dr Frank Avignone and a presentation on "Neutrino Research Using Accelerators" by Dr Sanjib Mishra, both of USC Columbia. The audience of about 60 enjoyed the presentations, exhibits and light refreshments after the presentations.

A social period at 6:30pm was followed by a seated banquet in Newberry Hall. The after dinner speaker was Dr John Palms, Distinguished President Emeritus of USC. Dr Palms has had an extensive career in research and academia. He serves on the boards of several utilities and treated the diners to observations on the state of the nuclear industry.

The Neutrino Celebration was the first major conference hosted by the Heritage Foundation and it turned out to be very successful, thanks to the efforts of our many Foundation volunteers. We brought the neutrino to the attention of many people who would not have heard of it otherwise...for 3 consecutive days, the neutrino was featured on the front page of the Aiken Standard and a week later the Celebration was praised on the editorial page. Lester Welch served as ad hoc technical advisor on time travel using neutrino propulsion to the play "Aiken Prime Time Murders" produced by the Aiken Downtown

Development Association. And the historical marker on Richland Ave will continue to remind our residents of the tiny particle that played a large part in the history of Aiken







Replica plaque unveiling L-R Fred Cavanaugh, Ronnie Young, Walt Joseph, Lester Welch, David Jameson



Aiken Chamber of Commerce Unveiling of Historic Marker and bronze plaque



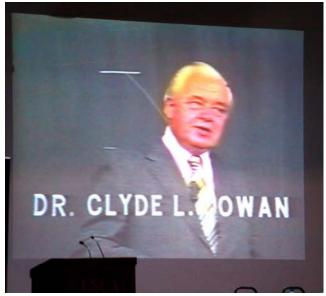
Reminisces & Anecdotes Panel: L-R –Ron Edge (at podium), Dr. Paul Roggenkamp, Jim Hinton, Dr. Frank Kinard, Dr. Henry Gurr and Elizabeth Cowan Riodron, (daughter of Clyde Cowan)



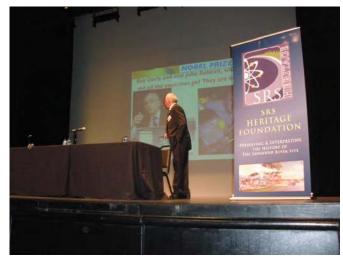
Dr. Sanjib Mishra presents "Neutrino Research in Accelerators"



Welcome panel—L-R Tom Hallman, Clint Wolfe, Walt Joseph and Lester Welch



Historic video of the late Dr. Clyde Cowan discussing the neutrino experiments



Dr. Frank Avigone presents "Neutrino Research and Astro-Physics"



Refreshments after the video and panel discussions



Dr. John Palms, guest speaker at the CNTA banquet that evening



Some photos of the banquet ... excellent meal catered by Newberry Hall.



Parting gifts from Clint Wolfe to Dr. Palms of a Neutrino shirt, Cowan video and the infamous CNTA mug!



Special M&M's each guaranteed to contain "65 Neutrinos" ....how fun and delicious!! Thanks Lester!

Photographs provided by Todd Lista of Todd Lista Studio and by Bob Eble of American Nuclear Society

Thank you to Lester Welch for suggesting the project and to all the SRS Heritage Foundation volunteers and sponsors for making it a great success!



# SRS HERITAGE FOUNDATION MEMBERSHIP APPLICATION

I would like to become a member of the SRS Heritage Foundation in the following level. (Please Check One) Benefactor \$120.00 \$ 60.00 Patron Sustaining \$ 35,00 \$ 15.00 Student Small Business \$ 250.00 Corporate Member \$1,000.00 Corporate Sponsor \$5,000.00 I would be willing to help with Publications\_\_\_, Membership\_ Fundraising\_\_\_, Publicity\_\_\_\_, other\_\_ This membership is valid through December 2011 Name: Address: City, Zip Code: Phone: Email (s): Fax #:

My check, made out to the SRS Heritage Foundation, Inc. is enclosed. Contributions to the Foundation are tax exempt. Federal ID#20-1629370

Please mail to:

SRS Heritage Foundation, Inc.

P.O. Box 2226 Aiken, SC 29802

Phone: (803) 226-0116 or 648-5634

Email: SRSHeritageFoundation@gmail.com or qualityprt@aol.com