

SRS HERITAGE FOUNDATION NEWSLETTER

July, 2017



Museum Summer Openings

Now that the major, Phase 1, construction has been completed, the Savannah River Site Museum will continue to have scheduled public openings during the summer.

The Museum will be open to the public from noon to 4:00pm on selected Fridays and Saturdays in July, August and September. The scheduled open dates are as follows:

| | | | | | |
|-----------|---------|-----------|-----------|-----------|--------------|
| Friday, | July 21 | Friday, | August 4 | Friday, | September 1 |
| Saturday, | July 22 | Saturday, | August 5 | Saturday, | September 2 |
| | | Friday, | August 18 | Friday, | September 15 |
| | | Friday, | August 19 | Saturday, | September 16 |

Please plan to visit us as we continue developing the Museum.

Museum Adds Spy Plane Exhibit

A scale model of the iconic U-2 spy plane has been added to the entryway of the Museum.

The revolutionary U-2 airplane was developed in the top-secret “skunk works” at the Lockheed Aircraft Corporation to provide real-time information on Soviet weapons capabilities and deployment during the Cold War. The plane was accepted by the CIA in 1955 after the Air Force turned it down.

The U-2 was essentially a lightweight powered glider designed to fly at an altitude of 70,000 feet, above the range of current Soviet fighters and missiles. The fuselage was 63 feet long and the wingspan was 103 feet. To save weight, the plane didn’t have conventional landing gear but relied on two inline wheels and detachable skids on the wingtips for takeoff and landing. It burned specially-formulated fuel in its turbojet engine and carried special cameras and film. The U-2 was designed for a range of 6,000 miles at a speed of 475 miles per hour. The CIA pilots and crews named the plane “the Dragon Lady” after a character in a popular comic strip.

The first U-2 flight over the Soviet Union took place in 1956; the Soviets detected the plane on radar but were frustrated by their inability to shoot it down with fighters or missiles. Subsequent flights

Continued on page 2 ...



Glenn Fields with U-2 Model

focused on Soviet airfields, manufacturing plants and atomic test sites. Information from these flights provided assurance that we would be able to detect Soviet preparations for a strike against the US. However, the Soviets worked desperately to improve their air defenses and in 1960 were able to shoot down a U-2 piloted by Francis Gary Powers. The U-2's continued to be used to gather intelligence against less well-defended targets and are still used today.

Former CIA Director Richard Helms said that "U-2 overflights of the Soviet Union provided us with the greatest intelligence breakthrough of the twentieth century."

The U-2 model in the Museum is an exact scale model of the U-2A, the earliest version of the U-2, exhibited at the National Museum of the US Air Force in Dayton, Ohio. The model was built by Glenn Fields, Russell Young and Don Jenkins of the Aiken Radio Control Society (ARCS). The ARCS members spent a total of 300 man-hours in building the model; their time was contributed as a gift to the Museum and their only payment was for the materials used.



U-2 Model installed in SRS Museum

Lista Photos

Russians Visit SRS Museum



Russian Inspection Team

Lista Photo

The SRS Museum is attracting international visitors. Our public openings have brought in visitors from Japan and Australia and on June 14th we hosted a Russian team visiting as part of the US and Russian Plutonium Production Reactor Agreement (PPRA).

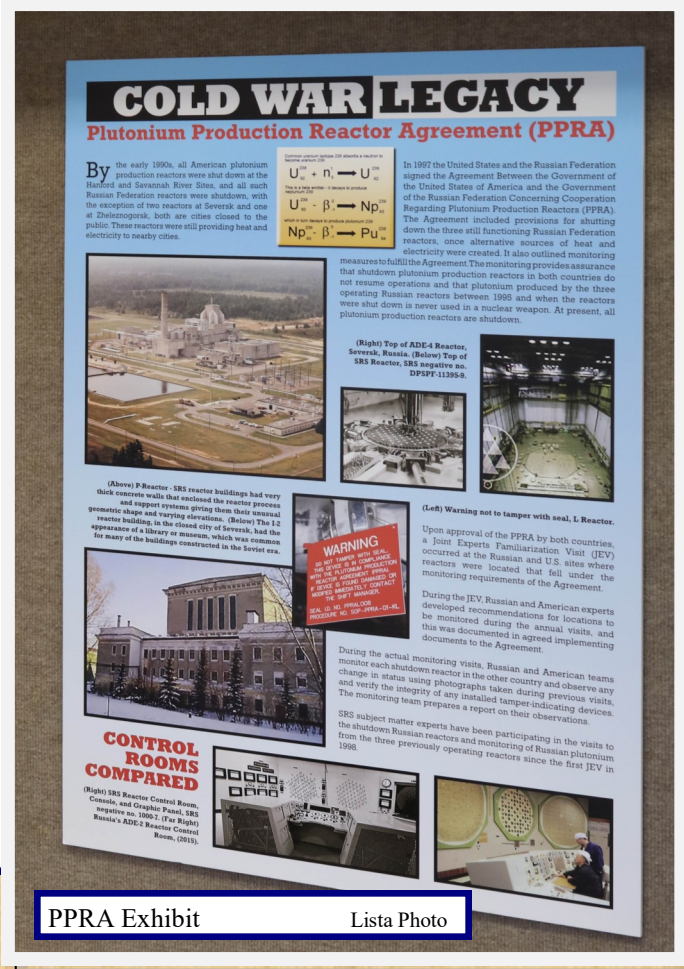
The PPRA agreement was signed by the US and Russian Federation in 1997. The agreement provides for monitoring inspections to assure that shutdown plutonium production reactors in both countries do not resume

operations and that plutonium produced after 1995 cannot be used in a nuclear weapon.

The 8-person Russian PPRA inspection team was accompanied by 2 representatives of their DOE-equivalent organization, 8 US Department of Defense interpreters, and several DOE representatives, both local and Headquarters. The Russians enjoyed their special tour of the Museum although they differed with our interpretation of the origins of the Cold War; they insisted the Cold War began with the US dropping atom bombs on Japan rather than our time line which begins with the first Soviet atom bomb test. Although discussions during the tour were restricted by the need for interpreters, viewpoints were shared and recognition of similar challenges in building and operating nuclear production facilities were evident.

At the conclusion of the tour, the Russians presented the museum with several mementoes, which will be displayed behind the reception desk in the Museum.

One of the mementos is a booklet and accompanying videos issued on the 70th anniversary of the Russian nuclear program.



PPRA Exhibit

Lista Photo

SRS at Sixty

By Art Osborne

SRS's commitment to environmental stewardship and leadership began with the announcement that the site would be constructed in the CSRA. Two scientists (Dr. Ruth Patrick and Dr. Eugene Odum) led the way by providing the technology, leadership and excellence that has placed SRS in a world leadership position and achieved an incredible nuclear/industrial, ecological and environmental record.

Dr. Patrick worked with the Philadelphia Academy of Natural Science (PANS). When DuPont accepted the SRP contract in 1950 Dr. Patrick was one of the three female ecologists in the nation. She was under contract with DuPont for environmental work to mitigate water pollution in the Delaware River. This early work by DuPont was recognized as one of the first serious industrial work to control and correct negative environmental impacts from industrial operations. She was also well acquainted with DuPont President Greenewalt. Dr. Greenewalt had full confidence in her work.



The operation of SRP's five reactors would increase the temperature of the Savannah River. DuPont and the AEC both felt it would be a good idea to have a record of the river's biological diversity and health before operation to compare to the natural environment and the changes it would undergo. This baseline work was completed by the PANS under the direc-

tion of Dr. Patrick. Her work, in effect, wrote the book on how to characterize, study and measure the health of natural waterways by focusing on the health and changes in diatoms, a basic form of algae. In the years that followed she was closely involved with all the environmental work done by DuPont. The work at Savannah River was her landmark project and she very quickly rose to national prominence. Before the first reactor was started the river and surrounding wetlands had been well documented and defined.

Dr. Patrick maintained a close association with the SRS throughout her career. She also was a major contributor in the growth of the University of South Carolina Aiken's campus. The Ruth Patrick Science building was named as a memorial to her and her outstanding work.

The work of Dr. Eugene Odum at SRS can be described by drawing from a letter quoted in "Forty Years and Beyond, Savannah River Ecology Laboratory 1951-1992" by Jane M. Sanders. Early on after the announcement of the SRP, Dr. Odum wrote a letter speaking to the challenge of the SRP.



In 1951 we received word at the University of Georgia that the Atomic Energy Commission (AEC) was interested in a comprehensive ecological inventory and possibly other studies at the Savannah River Plant Reservation. The AEC contacted UGA and also the University of South Carolina about this work. Dr. Odum returned a comprehensive plan detailing inventories of flora and fauna and also plans for ongoing and future studies. It was initially more than the AEC envisioned. The inventory was soon completed by UGA and USC. Odum recalled saying at that time that more should be done but the AEC was not interested at the time. During subsequent discussions Dr. Odum made the point that ecological succession was one the most important fundamental principles in ecology. Except for the work of Dr. Henry Oosting at Duke, no large scale studies of natural succession had been done in the Southeast. This helped the AEC come to understand and appreciate the benefits of increasing the size and scope of the SRP work. This resulted in increased funding and personnel. SREL was on the way. UGA was ready and the official charter of the Savannah River Ecology Laboratory (SREL) was finalized in 1961 and it became a permanent part of the Savannah River Site. Dr. Odum is credited by some as the father of modern ecology. Progress at SRS and the work of SREL has been steady. In the 1970s SRS was named the first environmental research park in the nation. Today SREL is recognized nationally and internationally as a leader in the nuclear environmental /ecological field.

Docents Welcomed

“Docent” is defined as a person who acts as a guide, typically on a voluntary basis, in a museum, art gallery or zoo. Now that the SRS Museum is open to the public on a regular basis, we have an opportunity for docents. If you like to meet and interact with people, including occasional foreign visitors, and if you know or can learn a bit about the SRS we would like to welcome you to join our docent team.

A typical docent is asked to spend one convenient 4-hour shift per month as part of a 2- or 3-person team in the Museum. Docents are trained on Museum practices and exhibits. Our docents generally enjoy their assignments and find them to be rewarding experiences.

If you think you would be interested in serving as a part-time docent in the SRS Museum, please come to one of the Museum openings (listed on page 1) to see what is involved. If you'd like to be added to the team, tell one of the docents on duty or leave a message by calling the Museum at 803-648-1437.



Cedar Creek “Red Hat” ladies visit the Museum on May 23rd.



Documenting Audio/Video Interviews

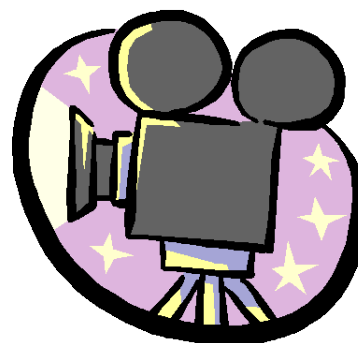
By Tom Gorrell

The program to conduct audio/video interviews of former SRP employees and local citizens is progressing nicely. This historical, documentary material is an integral part of the SRS Heritage Foundation's effort to describe personal recollections of the impact of SRP on the surrounding areas. Also, several interviews provided the information used in specific museum exhibits. Examples: DWPF and Pu-238 applications.

Sixty-seven interviews have been conducted and the tapes archived. The extensive, tedious process of transcribing the audio information to written documents is in progress. Transcriptions of twenty-seven interviews have been archived.

Persons interviewed were chosen from an extended list of candidates. They came from a wide variety of backgrounds and experiences.

| | |
|-----------------------|----|
| Local Citizens | 12 |
| DuPont Spouses | 7 |
| Reactors | 9 |
| Separations | 10 |
| Ecology & Environment | 6 |
| SRL | 5 |
| Plant Support | 6 |
| Management | 3 |
| Other | 9 |
| Total | 67 |



A few interesting little gems appeared from this effort, evidence of the personal pleasure or satisfaction the interviewee recalled during his session.

Owen Clary's description of Minnie Pearl's visit to Aiken long ago. She purchased her famous hat at Surasky's Department Store from Ola Hitt for \$1.98. She went on-stage at the old Aiken HS (now Trinity) wearing the hat and tag to announce the famous line "Howdie... Minnie Pearl !!!!"

Doug Leader's description of the Leader Seater, vital for the proper seating of one-inch components in the reactors. It was designed in a few hours, fabricated in a few more, and used unchanged with great success for 35 years.

Vern Fernandez's description of the enormous relief he experienced when the welding procedure used with Pu-238 spheres finally resulted in reproducible, high quality welds after weeks of failures. Vern said: "I felt as though I had won the lottery!"

Joe Womack's response to the question: "How do you feel about your 40 years of service at the plant?" Answer: "My wife said I made a whole lot better manager than I would have a dentist". (Joe had been accepted at dental school before he chose to go into chemistry.)

Mary Ricks Fallaw's description of her tests on Patrol's firing range. "The M-16 rifle was a breeze but the Thompson machine gun (a favorite of 1930s mobsters) was a real challenge." When asked how many rounds per minute that weapon could fire she replied: "They just told me when to stop. It kind of scared them a little bit!"

Heritage Trail Tours

By Bruce Wilson



View of Center Street

The SRS Heritage Foundation provided a guided walking tour of the Ellenton Heritage Trail on May 22nd. Among our eleven visitors were several with very close ties to the town, having been children or teen-agers in Ellenton around the time that construction of SRP was announced. Their memories added to the narrative of our guide for this tour, George Wingard, from the Savannah River Archaeological Research Program. Jack Hardin drove up from North Charleston to take a literal walk down memory lane. In this case, the walk included what were once the streets named Center, Russell, Dunbar and Main. Through vintage pictures and narrative, we were able to describe just a bit of what life was like in Ellenton before the town was displaced.

Please watch for an announcement of future tours for the fall of 2017, when cooler temperatures will make walking a lot more comfortable. In the meantime, let us know if you have an interest in touring by providing us your name, phone number and email address.



George Wingard discussing the town of Ellenton

THANKS TO OUR SRS HERITAGE FOUNDATION SPONSORS 2016

We are please to recognize our sponsors who have made substantial contributions to Foundation programs.

Corporate Sponsors

Savannah River Nuclear Solutions
Fluor Inc.

Corporate Members

Savannah River Remediation
Centerra SR
Security Federal Bank

Business Members

New South Associates

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



In these busy times we hope you found a few minutes to send in your membership. Your membership helps us continue to reach our goals.

LIKE US ON FACEBOOK! We will be posting news and tidbits during these exciting times of Foundation progress. The SRS Heritage Facebook page is open for business. Please join us at <http://www.facebook.com/srs.heritage>. And don't forget the news and archives at the website, <http://www.srsheritage.org/> or check out the srsmuseum@aikencountysc.gov



SRS Heritage Foundation Annual Renewal Notice

P.O. Box 2226, Aiken, SC 29802
srsheritagefoundation@gmail.com

☐ **YES! Renew my membership for 2017**

Name

Street Address or PO Box

City, State, Zip Code

Phone

Email

Amount Paid:

Make check payable to:

SRS Heritage Foundation

Membership Levels

| | | | |
|-----------------------|----------------|-------------------|-------------|
| Corporate | \$1,000 | Patron | \$60 |
| Small Business | \$250 | Sustaining | \$35 |
| Benefactor | \$120 | Student | \$15 |

PLEASE RETURN THIS ENTIRE FORM along with your check payable to the SRS Heritage Foundation.

Thank you for your membership renewal and continuing support to preserve and interpret the history of the Savannah River Site. Members will receive:

- A quarterly newsletter
- A SRS Heritage membership pin (1st time members only)
- Member-only discounts in the SRS Museum gift shop
- Special invitation to SRS Museum events

IT'S NOT TOO LATE TO RENEW!