

Preserving & Interpreting Savannah River Site History

# SRS HERITAGE FOUNDATION NEWSLETTER

December, 2018

Happy  
Holidays!

The fourth quarter of 2018 turned out to be a very busy time for the SRS Museum as several projects that had been in design and fabrication for months suddenly reached fruition together. The result has been a blossoming of exhibits and activities as described in this Newsletter. Please stop by to see the progress before the next round of construction restricts visits.

## Ribbon Cutting Launches Environmental Stewardship Gallery- Vicky Sutton Jackson



left to right, SRS Museum Executive Director Walt Joseph, Walt's wife and a museum volunteer, Paula Joseph and SREL Assistant Director Chris McBride; second row, Smokey Bear U.S. Forest Service-SR, Aiken County Council Chairman Gary Bunker, U.S. Forest Service-SR Assistant Manager for Research Andy Horcher, and Greater Aiken Chamber of Commerce President David Jameson.

Savannah River Site Museum held a ribbon cutting ceremony on Saturday, Oct. 20 at 4 p.m. to open the SREL-USFS-SR Environmental Stewardship Gallery.

The new gallery was designed and installed by New South Associates to depict the ongoing roles that both the University of Georgia's Savannah River Ecology Laboratory and the USDA Forest Service-Savannah River have had in the environmental stewardship of the U.S. Department of Energy's Savannah River Site since 1951. Both USFS-SR and SREL conduct outreach education for the general public and were overjoyed to partner with the Museum in telling their stories.

The original focus of the Museum was on nuclear production and research and the extensive research that focuses on protecting the environment was not covered. The new exhibit corrects this oversight and provides a more balanced description of activities at the Savannah River Site.

The gallery contains photographs, illustrations and interactive exhibits prepared by the SREL and the USFS-SR. Depictions of the various habitat types, associated wildlife and conservation efforts are just a few of the exhibits that visitors will find in the gallery. Exhibits are designed to be interesting and educational for all age groups.

Smokey Bear was on hand for the ceremony, along with local officials and representatives of SREL and USFS-SR.



This ceremony launched the activities for the "Atoms in the Alley" event in downtown Aiken

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## “Atoms in the Alley” Party Very Successful

The SRS Heritage Foundation sponsored the second annual “Atoms in the Alley” block party in downtown Aiken from 5:00 to 7:00pm on Saturday, immediately following dedication of the Environmental Stewardship Gallery. The family-oriented party featured live music by the Atomic Road band as well as educational exhibits and vendors.

An estimated 300 people, including many family groups attended the party this year. Several of the exhibitors provided nuclear-related hardware for young people and the children enjoyed wearing hard hats, lab coats and photo badges.

Corporate sponsors for the event included:

Atkins

Centerra-SRS

Savannah River National Laboratory

Savannah River Nuclear Solutions

SRS Community Reuse Organization

Security Federal Bank





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Unlike last year, when the Foundation did not earn quite enough money to pay expenses; this year the event produced a modest profit.

**Planning for the 2019 “Atoms in the Alley” party has already begun.**



## DuPont Contribution Supports American Chemical Society Program



The SRS Heritage Foundation furnished the tent and supporting equipment, including heating and lighting, furniture and temporary rest room facilities for the ACS celebration described on page 4 . We were contacted by Heritage DuPont Global Community Investment who suggested that the Foundation apply for a grant to support our costs for the ACS celebration.

With this encouragement, we applied for a grant and were fortunate to receive an amount that more than covered Foundation expenses. Not only was the money welcome, but it was gratifying to receive support from DuPont after their long absence from the Savannah River Plant. Note: note the new 2018 DuPont logo



## Chemical Society Recognizes SRS Contribution to Space Exploration



On November 1, the American Chemical Society designated the Savannah River Site as a National Historical Chemical Landmark for its role in producing plutonium-238 for space exploration. The technologically demanding work was carried out at SRS and the ceremony recognizing the designation was held at the SRS Heritage Museum. Approximately 80 people attended the Aiken celebration.

The American Chemical Society (ACS), is the world's largest scientific society and is chartered by the U.S. Congress. ACS established the National Historic Chemical Landmarks program in 1992 to recognize seminal events in the history of chemistry and to increase awareness of the contributions of chemistry to society. Past landmarks include the discovery and production of penicillin, the invention of synthetic plastics, and the works of such notable scientific figures as educator George Washington Carver and environmentalist Rachel Carson. Recognition of the SRS is the first ACS Landmark in South Carolina

In authorizing the landmark recognition of the SRS contribution to space exploration, ACS President Peter Dorhout cited the extraordinary collaboration among scientists, engineers and other employees at the Savannah River Site to produce and purify the plutonium isotope required,

Providing electricity and heat to a spacecraft in flight is challenging, given the vast distances and intense cold of space. Beginning in the 1950's, SRS helped meet this challenge by making plutonium-238 to fuel nuclear batteries aboard spacecraft. The batteries power and warm spacecraft and the research instruments they carry, making the exploration of deep space possible. SRS produced nearly all of the plutonium-238 for every U.S. mission that has relied on these batteries. Some of the spacecraft are continuing their missions even now, including the Voyager 2 probe, which was launched in 1977 and has studied Jupiter, Saturn, Uranus and Neptune and continues to send back data from beyond the earth's solar system. .

The longevity of the isotopic generation was cited by Michael Budney, Manager of the DOE Savannah River Operations Office as "a true testament to its historical significance. Many people dedicated their working lives to programs like plutonium-238 production at the Savannah River Site. They were never really able to tell their families or friends what they did. Forty years later, their ideas and processes are still being used to help us explore the bounds of space. I hope this designation allows them to finally say, 'We did that.'

A commemorative plaque was unveiled at the ACS recognition event. The plaque will be displayed in the SRS museum until it is permanently mounted in front of the museum in the near future.

Production of plutonium-238 at SRS ended in 1988 as the Cold War came to a close. The U.S. Department of Energy recently reestablished production of plutonium-238 at the Oak Ridge National Laboratory for future NASA missions.

Photos on Page 5





Michael Budney, DOE SROO Manager





## SRS at Sixty by Art Osborne

Sixty eight years ago this past November a public announcement was broadcast that changed the CSRA forever and set the stage for the USA to develop the nuclear defense infrastructure and capabilities necessary to match and surpass threats from the USSR. The Atomic Energy Commission (AEC) authorized the release of this announcement after 12 PM on November 28, 1950. The headline issued by the government read: "AEC announces new production site to be located in Aiken and Barnwell Counties, South Carolina".

When WW II ended in 1945 the country felt we had at least an 8 or 9 year lead over the Soviets in nuclear arms capability. This sense of national security was abruptly shattered in August of 1949 when the USSR detonated an atomic weapon sending clouds of radioactive fallout around the globe. The direction and urgency of the USA's weapons and atomic power development shifted immediately from a gradual broad-based political and committee leadership into an urgent national priority. This demanded that many decisions had to be made and made ASAP. The AEC called on DuPont. DuPont had operated the Hanford site used for plutonium production to end WW II and had stayed in touch with the AEC since the wars end.

The existing facilities used in the Manhattan Project were not deemed adequate for several reasons. The threat of the USSR meant that site defense considerations would become important. The changing technology and increasing power of the weapons demanded larger population safety exclusion areas and the method of incorporating municipalities into defense production sites was now judged to be a bad idea. DuPont, using these criteria, was tasked to locate, design, build and operate a new production site for the production of Plutonium and Tritium to meet national defense needs. It was to be known as the Savannah River Plant (SRP), today the SRS. Why was the CSRA selected? Answers to that question are shown below as presented by DuPont's Charles H. Topping on November 10, 1950.

1. It was isolated from population centers and large enough to house 6 reactors that were at least 20 air miles from Augusta, Ga. and Aiken, S.C. It met the criteria established for the Manhattan Project.
2. Savannah River water was judged chemically excellent and met volume and flow requirements.
3. Land to be acquired was marginal for food crops and mainly produced cotton.
4. The soil was sandy and considered excellent for construction as was the climate.

Based on generic estimates, construction cost would be lower than competing sites.

The final selection decision was made between 4 competing possible sites.

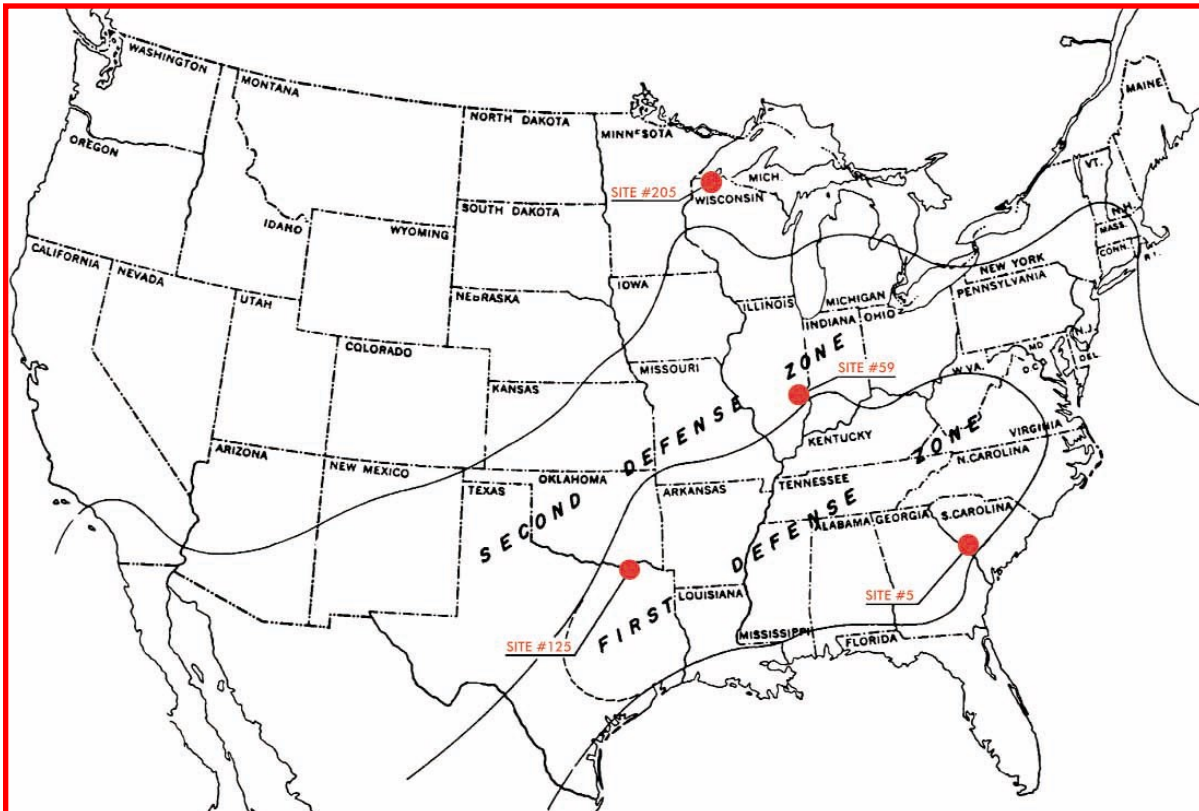
**Site Number 5 (CSRA)** – Located in Aiken and Barnwell counties in South Carolina on the Savannah River, 20 air miles southeast of Augusta, Georgia, and 15 air miles south of Aiken, South Carolina

**Site Number 125** – Located in Fannin and Lamar counties in Texas and Bryan and Choctaw counties in Oklahoma on the Red River, 15 air miles east of Bonham, Texas, and 76 air miles northeast of Dallas, Texas

**Site Number 59** – Located in Crawford and Clark counties in Illinois and Sullivan County in Indiana on the Wabash River, 20 air miles southeast of Terre Haute, Indiana

**Site Number 205** – Located in Bayfield and Douglas counties in Wisconsin, on the shores of Lake Superior, 26 air miles south east of Duluth, Minnesota

There is no doubt that the urgency imparted into the National atomic weapons/energy programs was elevated to the emergency level after the unexpected USSR atomic blast. This resulted in the selection of DuPont to take charge and make it happen ASAP. DuPont and the CSRA delivered and the USA won the Cold War and watched the dissolution of the failed communist state, USSR.



This illustration was used in *Plant 124–Site Survey Report* to show the location of the final four candidate sites and their relationship to the preferred military defense zones. Strategically, the preferred zone for the new complex was the First Defense Zone that was least vulnerable to Soviet bombers. Site No. 5 in South Carolina became the Savannah River Plant. Source: Charles Topping, *Plant 124–Site Survey*. (Wilmington: E. I. Du Pont De Nemours & Co., 1950).

## Please Renew Your Membership

The Newsletter describes many of the programs that have enhanced the visitor experience at the SRS Museum during the year. We continue to get very positive reviews from our visitors. However, the increased effort on exhibits and programs has diverted some of our volunteers from important infrastructure endeavors like **MEMBERSHIP**.

We urgently need to increase Foundation membership for two reasons:

1. Member dues cumulatively account for a substantial portion of the Foundation operating budget
2. Grant applications frequently ask for membership numbers as a way of judging support for the Foundation and its programs

Please join us in supporting the SRS Museum by joining the SRS Heritage Foundation for 2019.

**Museum Will Be Open   December 21 and 22   Noon to 4:00 pm**

**COME IN TO SEE ALL THE NEW EXHIBITS....  
BRING YOUR VISITING FRIENDS AND RELATIVES**





# SRS HERITAGE FOUNDATION

## MEMBERSHIP APPLICATION

*I would like to become a member of the SRS Heritage Foundation at the following level.  
(Please Check One)*

**BENEFACTOR**      \$120.00    \_\_\_\_\_

**PATRON**            \$ 60.00    \_\_\_\_\_

**SUSTAINING**      \$ 35.00    \_\_\_\_\_

*Our Business/Corporation would like to support the SRS Heritage Foundation at the following level.  
(Please Check One)*

**SMALL BUSINESS**      \$250.00    \_\_\_\_\_

**CORPORATE MEMBER**   \$1,000.    \_\_\_\_\_

**CORPORATE SPONSOR**   \$5,000.    \_\_\_\_\_

**NAME:**

**ADDRESS:**

**CITY/ZIP CODE**

**PHONE:**

**CELL PHONE:**

**EMAIL (S):**

**FAX #:**



**Please make out checks to SRS Heritage Foundation**  
**Mail to: SRS Heritage Foundation, Inc.,**  
**P.O. Box 2226, Aiken, SC 29802**

*I would be willing to help with:*

**Docent Duties**                    \_\_\_\_\_

**Membership Drive**            \_\_\_\_\_

**Fundraising**                    \_\_\_\_\_

**Publicity**                        \_\_\_\_\_

**Publications**                   \_\_\_\_\_

**Other Duties**                    \_\_\_\_\_

*You're welcome to check one or more to help support the Foundation.*

**CONTACT INFORMATION:**

**Phone: 803-648-1437**

**Email: [srsmuseum@aikencountysc.gov](mailto:srsmuseum@aikencountysc.gov)**

**Website: [srsheritagefoundation.com](http://srsheritagefoundation.com)**

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**Please contact us if you have any questions regarding personal memberships, small business, corporate sponsorship or visiting opportunities.**