

The Board Beat Magazine

Working Together to Educate and Inform the Communities Surrounding the Savannah River Site!



*Savannah River Site
Citizens Advisory Board
Fall 2017 Magazine*

Message from the Chair

Nina Spinelli

The value, work product and role of the SRS CAB is only as strong as the members who comprise the Board. As several members rotate off after January 2018, new members will fill their places.

These new members will have an opportunity to learn about the work and activities of the site, and use that knowledge to create recommendations that have a lasting impact on the community.

As new programs begin and old ones fall off, the CAB will have the chance to undertake topics such as cyber security, drone technology, continued clean up of legacy waste, community involvement, and pension plans for retired employees.

Each CAB member brings with them their own unique ideas, perspectives, and backgrounds, and harnessing those different view points is so very critical to ensuring a well-rounded and diverse Board. Over the past year as Chair, and year before as Vice Chair, I have had the privilege of seeing several recommendations come to fruition. From increasing meeting locations to allowing for greater public participation to encouraging environmental testing on the Georgia side of the Savannah River, these end results came from the hard work and dedication of the CAB members, support staff, and assistance from the Department of Energy.

Please visit our website at cab.srs.gov for more information on the Savannah River Site Citizens Advisory Board.

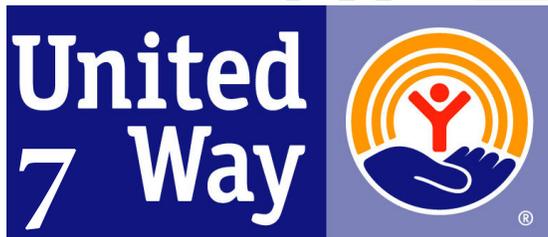


Nina Spinelli
Chair, Savannah River Site Citizens Advisory Board



The Savannah River Site (SRS) Citizens Advisory Board (CAB) extends a big “thank you” to everyone that helped make this magazine possible. To all the CAB members who submitted ideas and articles, to all the presenters and managers who make Full Board and Committee meetings meaningful, to the Board’s agency liaisons, and to the Department of Energy (DOE) for continued support, as we, the members of the SRS CAB, serve this very important role for DOE and our communities.

INSIDE



SRS CAB Recommendation Update	4
SRS Employees Hit a “Home Run” for United Way	8
SRR Completes Bulk Waste Removal for Tank 15	9
SRS CAB Tour of the SCE&G Energy Center	10
CAB Outreach	11
SRS CAB Introduces New Meeting Format	12
New Era of Melter Operations Set to Begin	14
SRS CAB 2018 Tentative Schedule	15
Innovation Leads to Low Cost Cleanup Technologies	16
Join the SRS CAB	17

The Board Beat is published semiannually by the SRS CAB and distributed in November and May, primarily by email. Content is provided by Board members and the CAB Support Team. To subscribe to the Board Beat, submit a request with your name and email address to: srscitizensadvisoryboard@srs.gov.

Recommendation Update

SRS CAB Recommendations Adopted Since May 2017

Recommendation #343

SRS Strategic Plan

Adopted: May 23, 2017

Status: Closed

An agency strategic plan is one of three main elements required by the Government Performance and Results Act (GPRA) of 1993 (P.L. 103-62) and the GPRA Modernization Act of 2010 (P.L. 111-352). An agency strategic plan defines its mission, goals, and the means by which it will measure its progress in addressing specific national problems over a four-year period.

The U.S. Department of Energy released its 2014 - 2018 strategic plan in April 2014. The U.S. Department of Energy Savannah River Site released its 2011 - 2015 strategic plan in September 2011.

The Department of Energy Strategic Plan, Goal 3: Management and Performance, states: the Department of Energy to meet the challenges of the 21st century and the nation's Manhattan Project and Cold War legacy responsibilities by employing effective management and refining operational and support capabilities

Recommendation #344

Prescribed Fire

Adopted: May 23, 2017

Status: Closed

Smoke emanating from forest fires can affect your health based on numerous factors, including length of time exposed to the fire, how much air you breathe, overall general health, and, concentration of smoke in the air. From 2012-2016, the Forest Service at the Savannah River Site had a total of 115,874 acres burned during prescribed burns. The Forest Service manages prescribed fires and, some wildfires, to benefit natural resources and reduce the risk of unwanted wildfires in the future.

Prescribed burns are helpful but the communities and towns that surround the Savannah River Site have the chance of being exposed to smoke from these prescribed burns.

to pursue departmental missions. The plan lists Environmental Management as a "Contributing Program." The Savannah River Site is named as a stakeholder in two of the underlying Strategic Objectives. The outdated SRS Strategic Plan no longer precisely supports or aligns with the DOE plan.

The SRS Citizens Advisory Board recommends that the Savannah River Site:

1. Update its strategic plan to support and align with the Department of Energy Strategic Plan.
2. Present a draft of that plan to the CAB so that the CAB can be given an opportunity to offer comments and provide input.



The Savannah River Site Citizens Advisory Board recommends that the Department of Energy:

1. Work with the Forest Service to create a notification system for individuals, businesses, schools, hospitals, media and local government of prescribed burn days that can be shared on social media and the SRS website to alert residents of potential smoke.
2. Work with the Forest Service to distribute calendar of prescribed burn days at local community events, including at the SRS CAB meetings.

Recommendation #345

Pollinator Land Use for the SRS

Adopted: May 23, 2017

Status: Closed

At the March 2017 full board meeting of the Savannah River Site Citizens Advisory Board (SRS CAB), the Forest Department shared that ten acres of native “flowering plants are annually sown to enhance pollinator habitat where it was once lacking diversity.” Over the past few decades, there has been a significant loss of pollinators, including honeybees, native bees, birds, bats, and butterflies, from the environment. The problem is serious and requires immediate attention to ensure the sustainability of our food production systems, avoid additional economic impact on the agricultural sector, and protect the health of the environment.”

The Savannah River Site is a unique position being a protected land area the size of Atlanta, Georgia. Part of the current land is used to maintain a site buffer, and large tracts of land are used to cover closed fields, waste sites

Recommendation #346

Drone Spotting Over SRS

Adopted: July 25, 2017

Status: Pending

During the summer of 2016, eight drones were reported flying over the SRS. At the time, airspace over the site was unrestricted, although the devices did pose a safety and security concern. At this time, the operator(s) of the spotted drone(s) have yet to be identified.

The Federal Aviation Administration maintains a website dedicated to understanding rules and regulations surrounding drone usage and registration, including weight regulations and operator presence near the drone. While the debate on drone usage continues to play out in the business world, media and court, safety concerns do exist for flying drones over SRS.

and ponds. Given that this space is unlikely to be used for other purposes, it seems viable to use this available land as space for pollination plants.

The Savannah River Site Citizens Advisory Board recommends that the Department of Energy:

1. Work with the Forest Service and Savannah River Ecology Lab to be represented in the Pollinator Health Task Force to learn more about how space at SRS could be used for pollination.
2. Collaborate with the Region IV Environmental Protection Agency to develop a plan for pollination, including funding, management and sustainability.
3. Given that funding may be a concern, consider working with local gardening clubs and associations that may be willing to assume some costs of the projects.
4. Based on feasibility, test the honey produced for contaminants.

Given the nature of sensitive material housed at the site and public concern over the reported spotting of UAS, the Savannah River Site Citizens Advisory Board recommends that the Department of Energy:

1. Continue investigating the drone sighting as allowed within its own agency regulations.
2. Continue to work with needed authorities to understand and implement the best use of air space over the site, to protect site activities and workers.
3. To provide updates to the SRS CAB about findings related to the UAS.
4. Consider partnering with sister agencies to utilize site resources for drone testing.

Recommendation Update cont.

Recommendation #347

Curation Facility

Adopted: July 25, 2017

Status: Open

The curation facility, works to preserve and protect historic artifacts related to the decades of history and science surrounding the Savannah River Site. Items housed at the site range from 1950 to 1989 and are cataloged in diverse themes: historical figures, historic events, the history of technology on and off site, and the social history of the men and women who worked at the Savannah River Plant (SRP). Along with artifacts, the curation facility stores over 580,000 photographic negatives.

Given the historic value housed in the collection of the curation facility, the Savannah River Site Citizens Advisory Board recommends that the Department of Energy:

Recommendation #348

H-Canyon and SRS Spent Nuclear Fuel Program

Adopted: July 25, 2017

Status: Open

Spent nuclear fuel at the Savannah River Site (SRS) is securely and safely stored in a reinforced concrete facility known as L-Basin. From the original reactor basin, L-Basin's capacity was expanded in the 1990s.

Holding roughly 3.4 million gallons of water in a pool ranging from 17-50 feet, L-Basin generally receives Foreign Research Reactor Fuel Assemblies (FRR) and Domestic Research Reactor (DRR) Fuel Assemblies, and stores the material in "bundles." The current inventory is around 3,000 bundles, meaning the basin is at 80% capacity.

Spent nuclear fuel has several disposition paths, including dry storage and processing of fuel. H-Canyon is continuing to process spent nuclear fuel under the current record of decision, however, a departmental decision from the Department of Energy is needed for the future of spent Nuclear Fuel chiefly, a decision as to whether to store the fuel or process the fuel.

1. Continue to expand tours of the curation center to interested members of the public.
2. Work with the SRS Heritage Foundation to provide materials for exhibits at their museum.
3. Work with SRNS and the curation subcontractor to develop a plan to allow for greater public participation.
4. Work with the local school districts to establish a traveling curriculum and display that can be incorporated by local schools.
5. Continue to work with local community partners who have a vested interest in site history to develop a strategic plan for community displays and participation.

The SRS Citizens Advisory Board recommends that DOE:

1. Continue to recognize the value and uniqueness of H-Canyon and advocate for the fullest level of funding to ensure that the Canyon remains fully operational and can continue processing spent nuclear fuel.
2. Release a decision on spent nuclear fuel. The SRS CAB believes that H-Canyon is able to process fuel and use that output productively. Additionally, storage space is limited and the site is not intended to be a permanent repository. Processing the fuel allows more of the material to leave the site boundaries, and offers the opportunity for H-Canyon, the only canyon of its design in the country, to use its capabilities.
3. Continue to make funding and maintenance of H-Canyon a priority. Given the age of the Canyon, there has been discussion that if the Canyon's work is halted, it may not restart properly.
4. Continue to work with agency partners to work on a final disposition plan and corresponding schedules for material processed through H-Canyon.

Recommendation #349

Oppose Consolidated Interim Storage of Spent Nuclear Fuel and High-Level Waste at SRS

Adopted: July 25, 2017

Status: Open

The 2013 DOE response to the Blue Ribbon Commission recommendations states that over the next ten years it plans to implement a program to make a disposal site available by 2048 – over 50 years after the date intended by the NWPA.

DOE's poor track record in managing large capital projects indicates the likelihood that this estimate will only elongate. Even finishing the Yucca Mountain project would entail decades. In the meantime, DOE plans to establish consolidated interim storage sites for spent nuclear fuel and/or high level waste.

DOE-EM currently stores SNF containing over 22 metric tons at SRS and plans to store over 8,000 canisters of vitrified high-level waste. Because of existing SRS storage,

Recommendation #350

Oppose Receipt of German SNF for Treatment and Storage in the U.S.

Adopted: September 26, 2017

Status: Pending

While evaluating the German Spent Nuclear Fuel proposal, it is appropriate for the CAB to consider the backdrop of other overriding environmental issues facing the SRS, which are linked to management of this SNF.

While the DOE Savannah River Operations Office and its contractors have done their best to keep commitments for cleanup and disposition of SRS materials and wastes, this cannot also be said of the support received from DOE Headquarters.

DOE has (a) failed in timely establishment of a geologic repository for disposal of EM high-level radioactive wastes and spent nuclear fuel, as required by the Nuclear Waste Policy Act; (b) consistently failed to provide sufficient resources for timely disposition of the large existing inventory of SRS spent nuclear fuel; (c)

DOE may consider Savannah River Site a suitable eastern consolidated interim storage alternative despite its close proximity to water and population centers.

Establishment of consolidated interim storage locations will likely have the unintended consequence of reducing motivation to create a permanent repository, thereby dramatically extending the period of interim storage at consolidation sites.

Based on the forgoing, the Savannah River Site Citizens Advisory Board recommends that DOE:

1. Not consider SRS as a reasonable consolidated interim storage location for EM spent nuclear fuel and high level radioactive waste pending establishment of a permanent geologic repository
2. Stabilize and remove such waste from SRS as soon as possible and not wait until establishment of a permanent geologic repository

since 2014, continued to underfund and thus delay its legal SRS EM cleanup commitments, especially regarding treatment of liquid radioactive waste and closure of tanks; and (d) engaging SRNL in research to find a way to process the German SNF would actually create a nuclear proliferation risk where none previously exists.

Such DOE failures undermine the CAB's confidence in DOE's ability for timely disposition of the German SNF and associated wastes outside of South Carolina.

The SRS Citizens Advisory Board recommends that DOE:

1. Correct the deficiencies identified in the Background section (above) in the final Environmental Assessment.
2. Prefer and select the "No Action" alternative described in the Draft Environmental Assessment, i.e., not receive the German SNF for treatment and storage in the U.S.

SRS Employees Hit a “Home Run” for Local United Way Agencies

Annual Tournament Raises More Than \$19K for United Way

Press release originally posted on srs.gov

Savannah River Site (SRS) employees and members of the community competed in the 13th annual SRS Softball Tournament, a tradition that benefits the United Way and draws hundreds of volunteers, players and spectators.

SRS has raised over \$19,500 as a result of the teams’ fundraising efforts and concession stand sales, which was a joint effort among volunteers from Savannah River Nuclear Solutions (SRNS), United Way of the CSRA and United Way of Aiken County.

Throwing the ceremonial opening pitch to kick off the two-night tournament was La Verne Gold, President, United Way of the CSRA and Sharon Rodgers, President, United Way of Aiken County.

“We are so appreciative of the employees at SRS who support special events like this. This tournament not only raises awareness of the important work United Way does for residents in our local communities, but it also illustrates how our slogan ‘Live United’ is about people of all ages and backgrounds coming together to make an impact for others, in many cases for people they will never meet,” said Gold.



Savannah River Nuclear Solutions employee Keanne Boyette (middle) and Brandon Watkins (right) wait for the pitch while Fred Dohse umpires a game during the 13th annual Savannah River Site Softball Tournament at Citizens Park in Aiken, S.C. The tournament benefited 15 local United Way agencies.

“Every summer, I look forward to this tournament because it provides an opportunity for friends and family to spend a few evenings together cheering for their team, and it raises much-needed funds for our partner agencies which focus on education, financial stability, health and assistance in crisis. We are truly humbled by this out-pouring of generosity,” Rodgers added.

Two major contractors from SRS participated in the tournament, which included 15 teams between SRNS and Savannah River Remediation (SRR). SRNS Environmental Management Operation (EM Ops) and SRR Avengers made it to the final round. SRNS EM Ops, which sponsored Area Churches Together Serving, a United Way of Aiken County partner agency, defeated the SRR Avengers team with a score of 17-2.

“The EM Ops team would not have been possible without the support of our employees who did such a wonderful job with fundraising, participating in the tournament and cheering on their team members,” said Wyatt Clark, Senior Vice President, SRNS EM Operations. “I want to extend a special thanks to Dan Billings. He’s the heart of this effort and always motivates others to get involved. Most importantly, I’m so glad to see all of the teams from SRS play because whether you win or lose, the bottom line is that we give back to the United Way.”

Prior to the event at Citizens Park in Aiken S.C., SRS employee “owners” raised money for their team, so they could then be eligible to “buy” players, ranging from \$20 to \$350, depending on skill level. Then, each team earned money toward their designated United Way agency based on how their team finished in the tournament.

Tournament organizer and SRNS employee Eric Schiefer was an inaugural participant of the SRS Softball Tournament and has played in the highly competitive event every year. “I want to thank all the players and volunteers who took time on two weeknights to make this fundraiser a success,” said Schiefer, an SRNS engineer. “Looking back on the past 13 years of the tournament, I would have never envisioned it becoming an event of this magnitude when it first got started. Each year as it increases in popularity, the more money we are able to raise for such a worthy cause.”

SRR Completes Bulk Waste Removal Efforts for Tank 15

Press release originally posted on srs.gov

The Department of Energy declared Bulk Waste Removal Efforts (BWRE) complete for Tank 15 on September 21, 2017—six weeks ahead of the Federal Facilities Agreement (FFA) deadline. BWRE began in September 2016.

To operationally close a waste tank at SRS, the salt and sludge must be dispositioned from the tank. The first step in this disposition process is BWRE. Preparation for BWRE is typically a multi-year engineering and modification process to install specialized equipment that meets strict nuclear safety standards. For tanks containing sludge waste, the sludge is suspended in solution using mixing pumps and sent to the Defense Waste Processing Facility for stabilization. For tanks containing salt waste, the salt is dissolved, removed, and treated at the Salt Processing Facilities.

The FFA is an agreement between DOE, the South Carolina Department of Health and Environmental Control, and the U.S. Environmental Protection Agency. The agreement is to remove old-style waste tanks from service, a significant step toward the country’s efforts to safely handle Cold War legacy waste and reduce the risk to employees, the public, and the environment.

The next step in the closure process of Tank 15 is the removal of the residual waste, known as the heel, using mechanical and, if necessary chemical, cleaning methods.



Bulk Waste Removal Efforts are complete on Tank 15, located in H Tank Farm

“Completing Bulk Waste Removal Efforts for Tank 15 is a huge checkpoint on the road to operational closure,” said Jim Barker, Tank Closure and Regulatory Director. “The Tank 15 project team, along with Tank Farm Operations, safely and efficiently removed the bulk of the waste from Tank 15, aligning with SRR’s and DOE’s mission.”

SRS CAB Tour of the SCE&G Energy Innovation Center

Written by: Earl Sheppard, CAB Vice Chair

After attending the CAB full board meeting in Charleston, the CAB members had the opportunity to tour the SCE&G Energy Innovation Center. Upon arriving at the center, the first thing you see is the huge turbine blade in the front of the building. Our curiosity was immediately piqued about what was inside the building.

We were greeted by the Director of Operations, Curtiss Fox. It was nice to learn the Navy donated the decommissioned building to the research group. Knowing what buildings this size cost, I'm sure this saved several million dollars which could be used in other areas of the research project.

The building was renovated over several years to its current status. The actual visual tour began inside the control room where there were several engineers controlling and troubleshooting issues around the world with turbines that are in operation; this looked rather intense. The tour continued to a grid simulator area where the electrical characteristics are tested using different testing scenarios that occur when the wind turbines are in use.



SCE&G Energy Innovation Center in Charleston.



Dawn Gillas, Facilities Disposition and Site Remediation Committee Chair during the tour of the SCE&G center.

The group toured the area where a test rig is set up and saw how large an actual unit was. It was then we realized why the blade outside the building was so huge. As we moved forward we saw an even larger test rig, rated at 15MW, which became mind boggling to most of us at that point.

After the tour was completed at the testing facility, the group was able to tour the state of the art Zucker Family Graduate Education Facility. This Clemson University education center, allows engineers and scientist in the Charleston area to continue their education away from the Clemson main campus.

It's great to know there are many different groups are trying to solve our energy issues using the wind as a way to safely and efficiently harness energy and transfer it to customers. This is truly a state of the art facility that will play a central role in shaping America's energy for the future.

CAB Outreach, What a T.R.E.A.T.!

David Hoel, Vice Chair of the Strategic & Legacy Management Committee, spoke to members of the public at the 2017 Fall TREAT Workshop at Paine College in Augusta. The Teaching Radiation, Energy and Technology (TREAT) Workshop is an environmental justice initiative that provides opportunities for local math and science teachers, and community leaders to learn about SRS missions environmental radiation and SRS environmental monitoring. David's presentation informed the participants of the purpose of the Citizens Advisory Board and encouraged them to apply for membership.



David Hoel speaking at the 2017 Fall TREAT Workshop



Jack Craig, DOE Savannah River Site Manager, welcoming TREAT participants



Bob Doerr, Strategic & Legacy Management Chair, greeting tour participants

Site tours provide an opportunity for those interested in SRS to better understand the Department of Energy's facilities and workers that changed the face of Aiken, Barnwell and Allendale Counties, nearby cities and helped win the Cold War. CAB members also use these tours as an opportunity to inform the community of what the CAB is currently addressing, and answered questions. CAB members pass information about the CAB, newsletters, brochures, applications, and more. To learn more about SRS public tours visit: srs.gov/general/tour/public.htm

The SRS CAB Introduces a New Meeting Format

Written by: Nina Spinelli, CAB Chair

Over the last two decades, the Savannah River Site Citizens Advisory Board has brought together a host of participants, from community stakeholders to regulatory agencies, to meet, discuss and offer recommendations to the Department of Energy on topics such as site clean-up, strategic planning and waste management.

As the board continues to grow and evolve, so too has the meeting structure. In the past, individual committees would hear a presentation at their own meetings. The committee then forwarded the presentation to the full board, where it was presented again. Over the last few months, the structure of the committee meetings has changed.

Presentations are now reserved for the full board meetings, where all board members have the chance to hear the presentations and get questions answered. As a result, committee meetings are a time for the committees to reflect on the presentation and the questions posed by the whole board. From that presentation, the committee has a chance to produce recommendations based on information learned and questions that may still linger.

By taking away the redundancy of duplicate presentations, the CAB committees have more time to have public comment, offer greater discussion on presentations, and take time to hone recommendations.

While change can be daunting, it can also open up new possibilities. The mission of the CAB is to offer advice and recommendations to the Department of Energy. By having more time to meet as a committee, the CAB has increased time to produce preeminent recommendations. Please feel free to share your feedback on the new meeting format.



STAY CONNECTED

Search #SRSCAB to find us
on any of these social media sites!



New Era of Melter Operations Set to Begin at Defense Waste Processing Facility

Press release originally posted on srs.gov

Melter 3 is now in place in the melt cell at Defense Waste Processing Facility (DWPF), marking a new era of melter operations at SRS.

The melter, known as the heart of DWPF, is a teapot-shaped vessel that treats high-level radioactive liquid waste being stored in SRS waste tanks by blending it with a borosilicate glass, or “frit,” to form a molten glass mixture, a process known as vitrification. The mixture is poured into stainless-steel canisters, which are decontaminated and stored safely on-site until a permanent storage facility is identified.

The melter replacement is one of two major projects in the liquid waste system that requires other facility outages and specialized work within the interconnected liquid waste operations. Jack Craig, DOE-SR Manager, said the melter replacement occurred at an optimum time for the liquid waste system.



Melter 3 arrives at the Defense Waste Processing Facility. It was moved into the melt cell inside the facility last week.

“The melter replacement allowed for preventive and corrective maintenance on systems that cannot be shut down for extended periods during melter operations. It also presented an opportunity for some critical tasks in the SWPF tie-in to be completed early,” Craig said.

At 75 tons, the melter vessel is 10 feet tall and 8 feet wide. The metal framework surrounding the melter, designed to permit remote handling, is 24 feet long, 12 feet wide, and 17 feet tall.

Final testing took place in an on-site mock-up facility before Melter 3 was moved by tractor-trailer to an outer holding well attached to the facility. The melter then went through a post-transport electrical checkout before being moved by crane into the melt cell, the area inside DWPF where melter operations take place.

To prepare for Melter 3’s tenancy, the melt cell underwent remote cleaning by a specialized robot. The robot, a commercially available machine modified by the Savannah River National Laboratory, was used to remove the radioactive debris on the melt cell floor left over from Melter 2 operations and removal. The robot had an attached broom and dustpan and swept the debris into larger piles for disposal.

Savannah River Remediation (SRR), the contractor that manages all the liquid waste facilities at SRS, has been working on the melter replacement. Tom Foster, SRR President and Project Manager, said the team completed this significant scope with a commitment to safety and with exemplary expertise.

“I’m very proud of the SRR team for its outstanding job accomplishing this melter replacement,” Foster said. “Workers from all across the organization came together to accomplish this task safely and efficiently.”

He added, “The life of Melter 2 was truly a success story, and the Liquid Waste Program is looking forward to using the lessons learned from Melter 2 operations and apply them to Melter 3.”

Melter 3 operations are scheduled to begin toward the end of the year.

2018 CAB Full Board Tentative Meeting Schedule

<u>Date</u>	<u>Location</u>
January 22-23	Omni Hotel & Resort Hilton Head, SC
March 26-27	TBA
May 21-22	The DeSoto Hotel Savannah, GA
July 23-24	TBA
September 24-25	DoubleTree Columbia Columbia, SC
November 5-6	The Partridge Inn Augusta, GA

Issues-based committees will meet in combined session on Monday beginning at 1 p.m. Tuesday Full Board meetings begin at 8:30 a.m.



Join us for a SRS CAB Committee Meeting in 2018!

Upcoming CAB committee meetings:

<p>April 17: Nuclear Materials 4:30-6:20 p.m. Waste Management 6:30-8:20 p.m.</p>	<p>April 18: Facilities Disposition & Site Remediation 4:30-6:20 p.m. Strategic & Legacy Management 6:30-8:20 p.m.</p>
---	--

<p>June 12: Nuclear Materials 4:30-6:20 p.m. Waste Management 6:30-8:20 p.m.</p>	<p>June 19: Facilities Disposition & Site Remediation 4:30-6:20 p.m. Strategic & Legacy Management 6:30-8:20 p.m.</p>
--	---

<p>Aug. 14: Nuclear Materials 4:30-6:20 p.m. Waste Management 6:30-8:20 p.m.</p>	<p>Aug. 21: Facilities Disposition & Site Remediation 4:30 - 6:20 p.m. Strategic & Legacy Management 6:30 - 8:20 p.m.</p>
--	---

All committee meetings are hosted at the
DOE Meeting Center
230 Village Green Blvd. Suite 220
Aiken, SC 29803



Innovation Leads to Low-Cost, Natural Cleanup Technology for Savannah River Site Groundwater

Press release originally posted on srs.gov

The groundwater contamination is a result of using industrial solvents to remove grease from materials manufactured for use in the site's now closed nuclear reactors.

In the 1950s, during the Cold War with the Soviet Union, it was common practice throughout the nation to place byproducts, such as used degreasers, in nearby unlined basins (manmade ponds of water).

"We have been actively remediating the groundwater plume beneath A and M Areas since the mid-1980s as it slowly moves towards the center of the site," said Mike Griffith, SRNS Manager, Area Completion Projects. "We have used a variety of technologies over the years to continually remove contaminants from this plume, which is about four square miles in size. As a result, the level of concentration in some areas has been reduced to very low levels."

Working with South Carolina DHEC and the Savannah River National Laboratory, the site is now conducting a field demonstration using humate and other nutrients to promote an increase in the population of organisms naturally found within groundwater native to this region. These organisms excrete enzymes that attack and degrade the solvents, converting them into a benign substance. Another benefit of the humate is that it helps the contaminant, known as TCE, stick to the soil and reduce the contaminants movement in groundwater.



Seth Dray, North Wind Inc., Darren Gillis, SRNS Environmental Control & Area Completion Projects (EC&ACP) Waste Generator Services, and Jeff Ross, EC&ACP Technical Lead, along with Scott Sommers (background), EC&ACP Design Authority, initiate injection of humate into the groundwater system at SRS.

The first phase of this project will involve a year-long process of injecting humate and nutrients down a specially equipped "recirculating" well about 200 feet deep where concentrations of the contaminant are the highest within that area of the plume. This well will establish a 40 foot thick treatment zone within the aquifer. Over the next two years SRNS scientists and engineers will use ten wells in the vicinity to monitor the effectiveness of the biological degradation process.

"If we achieve the degree of success expected, we plan to expand the treatment within the M Area TCE plume and offer this environmental cleanup technology to other Department of Energy sites across the U.S.," said Griffith.

Griffith explained that the cost of this approach to cleanup of underground chemicals is inexpensive compared to other methods used in the past. "We're using a few tanks, small pumps, hoses and some off-the-shelf commercial parts and equipment to inject the fluids down an existing well. We're confident this is going to be a very cost effective way to accelerate what nature is already doing, harnessing natural processes."

Since 1983, nearly 1.6 million of the estimated 3.5 million pounds of solvent released have been recovered using conventional techniques, such as highly mechanized air strippers and soil vapor extraction units.

The use of humate as a bio-remediation technology is another example of the innovative research and development capabilities possessed at SRS, where science is put to work to address some of the world's most pressing industrial and nuclear challenges.

The SRS CAB is always looking for new members to join the Board!

Do you live in an area affected by cleanup activities at SRS?

Would you be interested in learning about SRS and working as a team to help inform local communities?

If the answer is “yes,” you would be perfect for the SRS Citizens Advisory Board. We are currently recruiting new members to the CAB for the next term.



Please fill out an application at: <http://cab.srs.gov>

You can email us at: srscitizensadvisoryboard@srs.gov

Or you can give us a call at : 803-952-7884 or (800-249-8155)

Savannah River Site Citizens Advisory Board

Key criteria for Board membership includes a time commitment and the willingness to study the issues and work toward clear, implementable recommendations. To apply for membership to the Citizens Advisory Board, please call 1-800-249-8155, or visit the CAB website and complete an application at: cab.srs.gov

Please call, mail, fax, or email your comments and suggestions to:

de’Lisa Carrico

Assistant Federal Coordinator

SRS Citizens Advisory Board

P.O. Box A

Building 730-B, Room 1185

Aiken, SC 29802

Phone: 1-800-249-8155

Local: 803-952-7884

Fax: 803-952-9228

Email: srscitizensadvisoryboard@srs.gov