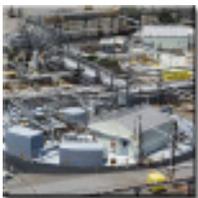


SRS UPDATE

NEWS FROM THE SAVANNAH RIVER SITE • JULY/AUGUST 2004



Before the Mobile Platform for Explosives Darming was shipped to Iraq, tests were conducted at the Wackenhut Services firing range at SRS (page 3).



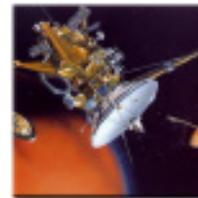
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Rollbacks restore H Tank Farm areas

A decade ago, respiratory equipment was required to access many areas on and around Tanks 9-12, commonly referred to as “The Hole.”

The Hole is just that, four tanks built in an excavated hole. Although drainage had always been a problem, many attempts were made to prevent the spread of contamination from water collecting on the tank tops and surrounding asphalt areas.

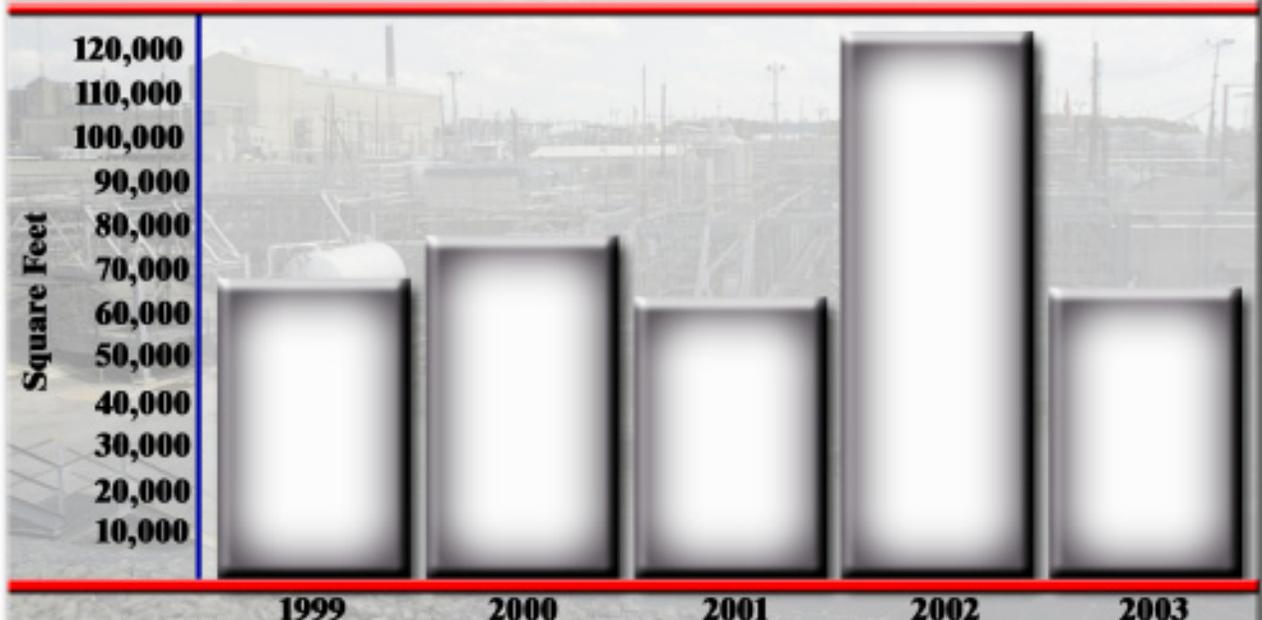
Even though attempts were made to clean the area, with the next heavy rainfall it reverted to its original condition. Several years ago, upgrades to the storm water system alleviated the problem of flooding The Hole, but heavy rains still spread contamination to the roadway.

To allow access to The Hole, an initiative was implemented to roll the contamination area back to a clean area. An asphalt berm was constructed to divert rainwater run-off to selected storm drains. After decontaminating much of the surface, an asphalt sealer was used as a fixative coating to cover any remaining nonremovable contamination.

Today, nearly 40,000 square feet of tank top surface is accessible in street clothes. Similar efforts are under way on the surfaces of Tank 16 and H Diversion Box-2 (HDB-2). A primer and fixative coatings were applied to the top of Tank 16, and a substantial amount of metal grating and stairs were cut up and disposed of to decontaminate its top. “I’ve worked on the tank farm for many years and have never seen HDB-2 look that good,” remarked Bill Lanham, H Disposition Projects Operations.

SRS MILESTONES

Nearly 400,000 thousand square feet of radioactive surface area at SRS has been decontaminated over the last five years



Savannah River National Laboratory engineers craft robot to disarm improvised explosive devices

Two prototype bomb disposal robots developed by the Savannah River National Laboratory (SRNL) are being deployed for military use in Iraq.

The Mobile Platform for Explosives Darming (MoPED) robots were developed under the direction and funding of the Defense Threat Reduction Agency (DTRA). The Combat Support branch of DTRA provides combat support to the military services.

The SRNL developed the MoPED to provide the military with a low cost robotic apparatus for use by U.S. Army Explosive Ordnance Disposal bomb technicians. The MoPED is designed to disable or disarm improvised explosive devices in Iraq and other military theaters.

The MoPED was designed to DTRA specifications based upon feedback provided by Explosive Ordnance Disposal bomb technicians recently deployed to Iraq. The robotic device is powered by a military Humvee and can deploy several different dearming tools provided by the military.

“MoPED is designed to deal with a variety of explosive devices,” said Rick Pelfrey, manager of the SRNL design team. “Its job is to render explosive devices safe, while protecting our soldiers and Iraqi citizens. Successful use of the MoPED is expected to save numerous lives.”

Science Bowl award trip brings students closer to nature

How many high school students wish that they could get a “birds-eye” view of a red-cockaded woodpecker and spend a day as an ecologist at the Savannah River Site?

DOE Science Bowl finalists from A&M Consolidated High School, College Station, Texas, had a chance to fulfill that wish during a recent visit to SRS as a reward for their excellent performance at the DOE Science Bowl held in May in Washington, D.C. The five-member team and their coach placed second in the competition.

Their award trip included a chance to participate in tours and activities designed to interest them in careers in science, math and technology. Their three-day stay at SRS, followed by a three-day tour of the Charleston, S.C., area and wet-

lands, was billed as “Wet, Wild and Wonderful,” because most of their activities focused on the area’s ecology. Activities included a boat trip on the Savannah River, a night trip on boats looking for alligators, an investigation of an archaeological site, facility tours of the Defense Waste Processing Facility and Savannah River National Laboratory’s Remote Systems Laboratory, and other activities.

Kristen Jones, A&M Consolidated High School teacher and science bowl coach was ecstatic about returning to SRS for the second year in a row. “Our trip to SRS was fantastic!” said Jones. “The students found hundreds of real-world applications of the knowledge that they had gained in the classroom and in science bowl preparation. This trip helped me to understand the extremely broad role that the DOE takes in our nation’s scientific research community. If I had to pick a word to describe the trip, it would be incredible.”

In addition to DOE, hosts for the trip included Westinghouse Savannah River Company and its partners, the USDA Forest Service-Savannah River, Wackenhut Services Inc. and the Savannah River Ecology Laboratory.



High school students from College Station, Texas, get hands-on experience as “Ecologists For A Day.”

SRNL supports DOE's Science Education Initiative

The U.S. Department of Energy's Savannah River National Laboratory (SRNL), the country's newest national lab, is aiding in the DOE's new initiative to promote science education and help prepare the next generation of scientists and engineers.

"Secretary Abraham's commitment to science education complements the long-standing partnership the Savannah River Site has had with our local schools," said SRNL Director Dr. Todd Wright. "Through our education outreach programs, we seek to promote the curiosity, appreciation

and awareness of science and mathematics so that young people's desire for discovering how things work is translated into an interest in science, and to consider a ca-

reer in science or engineering."

Energy Secretary Spencer Abraham outlined a seven-step program named STARS: Scientists Teaching and Reaching Students at a gathering of researchers and graduate students at DOE's Stanford Linear Accelerator Center. The program is designed to enhance the training of America's mathematics and science teachers; grow students' interest in science and math; and encourage young people and prospective teachers to pursue ca-

reers in math and science by spotlighting the work of the Department of Energy's talented scientists and engineers.



SRS has a long tradition of involvement with education, including the Traveling Science Lecture program, in which scientists and engineers lead the students in hands-on activities.

SRS's first radioactive sludge waste in line for disposition

The first sludge waste produced at SRS in 1954 is now in line for disposition at the Defense Waste Processing Facility.

The waste, which began as a uranium charge in R Reactor and was separated in F Canyon, was introduced into F Tank Farm's Tank 1 on Nov. 5, 1954.

Over the next several years, F Canyon filled Tanks 1-8 with sludge and liquid waste. In 1969, the sludge was moved to Tank 7 during the first waste removal program. Then, in 2003, it was transferred to Tank 51.

Finally, on March 22, 2004, the material – commonly referred to as Sludge Batch 3 – began its transfer to the Defense Waste Processing Facility. It is now in the site's Tank 40, awaiting vitrification.

The largest radioactive waste glassification plant in the world, the Defense Waste Processing Facility converts the high-level liquid nuclear waste currently stored at the site into a solid glass form suitable for long-term storage and disposal.

DWPF began radioactive operations in March 1996.



A sludge batch in Tank 40.



These pictures show how F Area looked before and after demolition of 221-14F.

Removal of 221-14F leaves canyon visible

When you come into F Area, you can now see more of the canyon than ever before. That's because 704-F and 221-14F have both been demolished in recent weeks, and their absence makes a decided change in the area's appearance.

The schedule calls for 58 buildings in F Area, including six in the 247-F complex, to be demolished by the end of FY06.

The Savannah River Site's 221-14F facility was the 18th F Area building to be demolished. For the remainder of this fiscal year, F Area work will concentrate on 703-F, 729-F and 221-25F. At 221-25F, demolition began in late July. Demolition work is expected to begin on 703-F in August. Deactivation of that facility is nearly complete.

Tritium construction workers recognized



Defense Programs Manager Chuck Spencer congratulates TEF and TCON crews for excellent work.

Personnel from the National Nuclear Security Administration Savannah River Site Office joined with the Westinghouse Savannah River Company Team on July 1 to recognize the hundreds of craft personnel and other employees who contributed to exceptional progress on two key tritium projects.

"The \$506 million Tritium Extraction Facility (TEF) and the \$142 million Tritium Consolidation (TCON) project represent a substantial investment by the United States in modernizing its nuclear weapons facilities," said Rick Arkin, NNSA's SR Manager. "The hard work of these people ... will ensure the long-term operation of the Tritium Facilities at SRS for many years to come."

In late May, TEF construction personnel turned over the first two process systems to operations personnel three months ahead of schedule.

Construction of TEF is now about 90 percent complete. TCON, which will consolidate tritium processing and handling activities into the newest of the tritium facilities, is on schedule for completion in September.

Group uses “Stagecoach” to save money and time

Workers in F Canyon have come up with a way to safely and economically store radiological waste, tools and equipment while working outdoors.

Dawn Manning, a member of one of F Canyon’s project teams, reasoned that if an outdoor area were housekept while work was in progress, it would eliminate hazardous conditions and prevent contaminated materials from getting outside radiological boundaries.

The result is the Stagecoach, a folding box covered with tarp material and designed to withstand outside weather conditions. It provides a means to store radiological waste overnight, or in other instances when work is not being performed,

and protects potentially contaminated tools and equipment from the elements.

As a further improvement, Jimmy Morris, Mike Potchebski and Bill Buchner built a sheet metal inside cover to keep the top

from collapsing when rainwater gathers on top.

This innovative storage method saves costs by not requiring all waste to be sealed and disposed of when the waste bags are not full. Waste can be maintained inside the Stagecoach until full and ready for “official” dispo-



Radcon Inspector Richie Enlow and Deactivation Specialist Dawn Manning show the Stagecoach.

sition.

Dawn Manning is part of the Savannah River Site’s F Canyon’s Project Team 2, led by Steve Mayle.

Fast forward: 247-F Closure Project

When Bill Stephens lost his trained, efficient 247-F Closure Project crews in February, he thought he could not possibly get back on schedule this fiscal year.

Now, seven months later, he’s not only caught back up – his crews are five months ahead of the execution baseline. Of the 100 zones in 247-F, thirty-five have been completed, and more are in progress. Over 130 containers of debris, totaling more than 102,000 cubic feet from within 247-F have been hauled away.

“When the construction crews left, I would never have predicted we’d be this far ahead,” says Stephens, Site D&D project manager for 247-F. “I can’t say enough about how great these folks are.”

Closure is slated to be complete in November of 2006. Right now, the project is on pace to finish in June of 2006.

“I think we’ll beat that, too,” Stephens says. “If we get the manpower, we could finish by the end of 2005 or early 2006.”

For 247-F, “finished” means demolishing six complex nuclear facilities down to a slab. Six months ago, over half of the 42 people now doing this work – and doing it well – had never performed D&D work before. Originally part of other organizations around the Closure Business Unit, they were transferred to D&D to keep the work going when subcontractors and construction workers were released in February.



Workers remove an uranium hexafluoride line from building 247-F.

Employees watch Cassini closely



(From left) Chuck Goergen, Craig Martin and Rick Burns were part of the management team at the time of the Cassini campaign in H Area. Behind them are four Cassini t-shirts, and Chuck is holding a model Pu-238 pellet. All are wearing Cassini pins.

manager through the Cassini campaign, with Rick as his operations manager. Chuck was H Canyon facility manager. All of them made the trip to Florida to watch the launch in 1997 and have been following Cassini's progress on the NASA web site in the seven years since.

"This is NASA's last big space probe," says Craig. "It's fascinating to think that the science gathered on this mission will be instrumental in space exploration for decades to come."

The Pu-238 is contained in three radioisotopic thermoelectric generators (RTGs). The RTGs will reliably supply the 700 watts of electrical power to the many scientific instruments, control systems and communication devices required to complete the Cassini mission.

RTGs now have been carried on 24 deep space missions.

SERVICE ANNIVERSARIES

35 Years: Dan Fabrick, Jimmy Miller, Phyllis Oldaker, Johnny Stokes, Elmer Wilhite.

30 Years: Jeffrey Bollibon, Paul Delorme, Kenneth Habegger, Jay Pittman, George Rodrigues.

25 Years: Rhonda Arnold, Larry Baxley, Fay Bodiford, Pamela Briatico, William Bryant III, Marshall Carroll, Pichi Chow, Arthur Cooper, Gregory Creech, Diane Drake, Vernon Dudley, Gloria Dunagan, Kenneth Durland, Marvin Flanders, Leonard Fulmer Jr., Michael Gibson, Steven Had-

dock, Gertrude Hankerson, Iris Harrill, Patrick Haywood, Julie Hoskins, Richard Hoskins, Patricia Ingram, Natraj Iyer, Leroy Jones, Russell Lawson, Gordon Leopard Jr., Harold Lotz, Barry McDougal, Gilbert Means, Pamela Morgan, Linda Moss, Jeffrey Overcash, Linda Payne, Robert Piercy, Steven Proctor, David Roof, Barbara Schmidt, Charles Sczesny, James Singletary, Haskell Staley, Gregory Tindal, James Vaughan, Charlie Williams, Walter Wilson, Deborah Woods.

Retirements: Diane Barker, Cora Berry, Earl Cushman, William Elliott, Rebecca Jolly, Sandra Kargaard, Rosemary Metts, Lyman Pitman Jr., Johnny Reese, James Robinette, Betty Rouse, Harrison Sanders, Robert Vance, Willie Walker Sr., Elisha Watson, Jasper White, Irving Williams.



SRS employees were recently honored for their military service.

Honoring those who serve our country

SRS employees were recognized recently for their military service since the September 11, 2001, terrorist attacks on the United States.

While most of the SRS service men and women were in attendance at a special ceremony, some are still on active military duty.

Held in Graniteville, S.C., on July 22, the event honored the 72 SRS employees and their families with a barbecue dinner and a patriotic program. In addition to the honorees and their families, those in attendance included local elected officials, business owners, community and civic leaders, and other SRS stakeholders. In all, about 240 people participated in the event.

The honorees were given plaques to recognize their “dedicated military service defending our country, our citizens here at home and in other critical locations around the world.”

Also, Bob Pedde received on behalf of WSRC the Seven Seals Award from Brigadier General Mitchell Willoughby, Assistant Adjutant General S.C. Army National Guard, and Luther Beason, S.C. Committee for Employer Support for the Guard and Reserve. The award is given to organizations that support its employees while they are serving on active duty.



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