**TANK CLOSURE PROJECT GOES OPERATIONAL AT SRS**

DOE-ENVIRONMENTAL MANAGEMENT (DOE-EM) HAS BEGUN OPERATING A SIGNIFICANT TANK CLOSURE PROJECT AT SRS, REPRESENTING A MAJOR STEP FORWARD IN THE LIQUID WASTE CLEANUP MISSION AT SRS AND ACROSS THE DOE COMPLEX.

EM and SRR last month initiated operations for Tank Closure Cesium Removal (TCCR), a demonstration project designed to accelerate removal of radioactive waste from the SRS underground tanks to support tank closure.

The process involves waste treatment technology that uses filters, ion exchange columns, and a specially engineered resin to remove cesium — a radioactive chemical element — from the salt waste. Salt waste accounts for more than 90 percent of waste in the SRS tank farms.

DOE-Savannah River Manager Mike Budney said the TCCR operation, if proven feasible, will be key to accelerating DOE-EM’s waste retrieval and tank closure efforts.

“The Tank Closure Cesium Removal project will supplement existing and planned facilities in the removal of radioactive cesium from liquid waste stored at the site, keeping with the DOE priority of protecting people and the environment,” Budney said.

The modular enclosure is deployed at Tanks 10 and 11 in H Tank Farm. The waste from Tank 10 will pass through the TCCR process, including a set of pre-filters and multiple ion exchange columns. The waste stream is treated with an engineered resin inside the ion exchange columns to remove the cesium. The cesium-rich resin and ion exchange columns will then be dried and sent to an interim safe storage area onsite and monitored prior to future disposal. The decontaminated salt solution will be transferred to Tank 11 and on to the Saltstone Production Facility for disposal at SRS.

The high-level waste constituents, such as cesium, must be removed from the tanks before the tanks can be operationally closed and removed from service. Cesium’s characteristics make it a top priority for removal.

TCCR will process several batches during this demonstration period. The first step in batch processing is salt dissolution, where water is used to dissolve the solid salt waste in the tank, called salt cake. After salt dissolution, but prior to processing the waste through TCCR, the batches of material will be sampled and analyzed, and its chemical constituents verified to be within the safety basis requirements before sending it through the TCCR process.

TCCR is expected to process 600,000 to 750,000 gallons of dissolved salt waste over a nine-month operating period. At the end of the demonstration period, DOE and SRR will evaluate the effectiveness of the TCCR system to decontaminate radioactive salt waste for disposal and the feasibility of continued TCCR operation and future units.

EM’s Savannah River National Laboratory contributed to research and development of ion exchange technology at SRS in support of the TCCR program. Westinghouse Electric Co. and Columbia Energy and Environmental Services supplied the TCCR unit.

**SRR DONATES TO SRS RETIREE ASSOCIATION**

Savannah River Remediation (SRR) recently donated $2,500 to the Savannah River Site (SRS) Retiree Association (RA) to provide operations support for the SRSRA Resource Center.

From left, Tom Foster, SRR President and Project Manager, presents a $2,500 check to David Fauth, SRS Retiree Association Chairman.
SRR ON TRACK TO HIRE HUNDREDS OF NEW EMPLOYEES

SRR HIRED MORE THAN 375 NEW EMPLOYEES LAST YEAR AND IS ON TRACK TO HIRE AT THAT LEVEL DURING THE NEXT YEAR.

In 2018, SRR brought on 378 new employees to join its team of now roughly 2,450 workers. New hires filled positions in varying disciplines, including engineering, production operations, electrical and mechanical maintenance, work planning, safety, and radiological protection.

The 2018 hiring initiative helped SRR “break even” on attrition rates. Additionally, the hiring increase will support new missions: The Saltstone Production Facility is transitioning to 24-hour operations to support the future operation of the Salt Waste Processing Facility.

At 37 years, the average age of the new SRR hires in 2018 is significant, according to Dave Hollan, SRR Administrative Services Director. When the SRR contract began in 2009, the average employee age was 54. Now the average is 48 and continuing to decrease as the younger generation enters the workforce.

“The missions at the Savannah River Site have been going strong since the 1950s,” Hollan said. “Naturally, we are seeing more and more waves of employees reaching their retirement milestone. SRR is actively seeking to balance this growing rate of attrition by bringing in the next generation workforce.”

It’s especially beneficial to be diligent in this hiring process now, while new hires can learn alongside experienced workers, Hollan added.

“Transfer of institutional knowledge is key,” Hollan said. “A subject matter expert with 30 years of experience with our processes who can mentor and coach a new employee hands-on becomes invaluable to the learning curve of that new worker.”

Of note, almost a third of the new hires in 2018 are U.S. military veterans.

“Military veterans display impeccable leadership capabilities and know how to succeed within a team,” Hollan said. “These individuals come to the SRR workforce as a great asset with unique skillsets ready to help us meet our mission.”

The job area that saw the greatest increase was production operation; the current operator training class includes more than 160 trainees. The trainees are part of the Liquid Waste Operator Fundamentals program, which is about 20 weeks and includes the requisite site general/regulatory training. Following the fundamentals training, trainees take facility-specific training programs required prior to being a qualified operator.

SRS FACILITY PRODUCES 30 MILLION GALLONS OF DECONTAMINATED SALT SOLUTION

An SRS facility has produced more than 30 million gallons of decontaminated salt solution mixed with a cement-like grout since beginning operations in 1990, a vital cog in the system that removes waste from tanks and moves it ultimately into safe storage.

The Saltstone Production Facility (SPF) is the last stop for this solution after it is sent from the site’s 43 remaining underground waste tanks — eight have been closed — to other SRS liquid waste facilities for processing. Sludge and salt are the two forms of radioactive liquid waste inside the tanks, and salt waste accounts for 90 percent of the tanks’ contents.

Processing salt waste to achieve tank closure is critical to reducing the risk the waste poses, said Jim Folk, DOE-Savannah River Assistant Manager for Waste Disposition.

“Innovation, together with hard work, has brought us to where we are today in producing over 30 million gallons of saltstone,” said Folk. “DOE is committed to safely executing the liquid waste mission at SRS, and this milestone continues to demonstrate the long-term success of this process.”

The salt waste is treated at interim salt processing facilities known as the Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit. This integrated system removes radionuclides from the salt, resulting in the decontaminated salt solution. This solution is the sent to the SPF to create the saltstone, a safe and permanent disposal solution for decontaminated salt waste at SRS.

Saltstone is stored in the Saltstone Disposal Units, which are reinforced concrete tanks that are modeled after commercial water storage tanks.