

Principal Media Contact: DT Townsend  
Savannah River Nuclear Solutions, LLC  
803.952.7566  
[dt-lawrence.townsend@srs.gov](mailto:dt-lawrence.townsend@srs.gov)

**FOR IMMEDIATE RELEASE**

## ‘What are Those Pipes For?’ SRS Sheds Light on Steam Generation History

AIKEN, S.C., February 8, 2021 – Large silver pipes that crisscross the Savannah River Site (SRS) and run along many of its roadways may prompt visitors, new employees and others to ask, ‘What are all those huge pipes used for?’

Andrew Ellsworth, maintenance coordinator with Savannah River Nuclear Solutions (SRNS), the site’s management and operations contractor, provided a response:

“Steam is generated and distributed across the site through 10 miles of insulated pipe for a wide variety of purposes. Most of the pipes are largely left over from when SRS was built in the 1950s,” he said.

In the site’s early years, using coal to produce steam was an extremely cost-efficient way to heat facilities and provide an effective source of energy for operations, Ellsworth said.

“With stricter Environmental Protection Agency emission standards and aging plant conditions, replacing the coal-fired plants with state-of-the-art biomass steam plants was the best option to continue this service,” he said. “With the new plants in service, our steam generation and distribution systems are now in excellent condition.”

Biomass plants burn excess wood from the logging industry and other sources to heat huge boilers, which create a vast volume of steam to export for site operations. The biomass process produces lower environmental



*Brad Clark, Savannah River Nuclear Solutions (SRNS) operations support specialist, left, and Andrew Ellsworth, SRNS maintenance coordinator, inspect a steam trap. The iconic large silver pipes used to distribute steam across the 310-square-mile Savannah River Site are pictured behind the two employees.*

# News from Savannah River Nuclear Solutions

SAVANNAH RIVER SITE • AIKEN • SC 29808

---

emissions, lessens energy consumption, and decreases operating and maintenance costs, while maintaining compliance with federal clean air and water laws.

Among the five biomass plants at SRS, the first was built in 2008 in an area of the 310-square-mile site near the Savannah River National Laboratory and several administrative facilities. That biomass plant replaced one of the original coal-fired steam plants built at SRS.

SRNS is responsible for the maintenance and operation of one of the five plants. The rest are operated by DOE contractor Ameresco Federal Solutions.

The largest biomass plant at SRS uses a portion of the steam produced to propel a turbine, which can generate up to 20 megawatts of electricity, meeting approximately 30 percent of the site's electrical needs. The electricity generated by the plant reduces the amount of power SRNS is required to purchase from an offsite utility.

That plant exports an average of 50,000 pounds of steam per hour — enough to generate heat for 1,350 2,000-square-foot homes for a day.

To ensure a continuous supply of water for steam production, approximately 800 gallons of water per minute are delivered to Ameresco's primary facility from the Savannah River.

"Some things last the test of time," said Ellsworth. "The SRS steam generation and distribution system is certainly one of them."

Workers recently completed a major steam maintenance outage, which included over 175 maintenance tasks just on the steam lines. Steam users took advantage of this outage to perform repairs on their systems to ensure long-term efficient operation.

"Our engineers, operations and maintenance teams work together to ensure the system continually operates at peak efficiency," Ellsworth added.

*Savannah River Nuclear Solutions, a Fluor-led company with Newport News Nuclear and Honeywell, is responsible for the management and operations of the Department of Energy's Savannah River Site, including the Savannah River National Laboratory, located near Aiken, South Carolina.*

Visit us on the web at [www.savannahrivernuclearsolutions.com](http://www.savannahrivernuclearsolutions.com)

SRNS-2021-998