



FACTS

ABOUT THE SAVANNAH RIVER SITE

Effluent Treatment Project

The F and H Effluent Treatment Project (ETP) treats low-level radioactive wastewater from the F and H area separations and waste management facilities, Central Lab, SRNL and miscellaneous sources such as SGCP well purge water. The ETP removes chemical and radioactive contaminants before releasing the water into Upper Three Runs Creek, a Savannah River Site (SRS) stream that flows to the Savannah River.

Construction and operation of the ETP were approved and permitted by the South Carolina Department of Health and Environmental Control (SCDHEC) and the Environmental Protection Agency (EPA).

Construction

Construction began in January 1987, with a process startup date of October 1988. ETP was designed and constructed to allow SRS to meet all environmental regulations associated with the Resource Conservation and Recovery Act and the National Pollutant Discharge Elimination System under the Clean Water Act. The total project cost was \$55 million.

ETP is designed to process 100,000 to 250,000 gallons of low-level radioactive wastewater from the two separations areas daily. Maximum permitted facility capacity is 430,000 gallons per day. The ETP encompasses wastewater collection and treatment operations that were modified for radioactive use. It was designed to remove heavy metals, organic chemicals and corrosive chemicals, as well as cesium and other radiological contaminants from the wastewater.

Discharge

ETP non-radiological effluents are discharged within limits of permits issued by SCDHEC. Because the Savannah River water eventually flows into municipal drinking water facilities, radiological effluents are governed by the federal Clean Water Act. This law establishes a safe standard for drinking water of 4 millirem (mrem) per year per person. Tritium releases from the ETP, when the site was operating at maximum production, were projected to result in an effective dose of less than 2.2 percent of the standard. Since then, the facility's discharges have consistently been significantly under the standard, year after year.

All personnel operating ETP are certified by the South Carolina Environmental Certification Board. The operator in charge holds an "A" Physical/Chemical Wastewater Certificate, the highest level of certification granted by the board.

February 2006

WASHINGTON SAVANNAH RIVER COMPANY

The WSRC Team: Washington Savannah River Company LLC • Bechtel Savannah River, Inc. • BNG America Savannah River Corporation • BWXT Savannah River Company • CH2 Savannah River Company