FACT SHEET

Effluent Treatment Facility

The F and H Effluent Treatment Facility (ETF) treats low-level radioactive wastewater from the F and H Area separations and waste management facilities, F/H Laboratory, the Savannah River National Laboratory, and miscellaneous sources, such as environmental cleanup of well purge water. ETF removes chemical and radioactive contaminants before releasing the water into Upper Three Runs Creek, a Savannah River Site (SRS) stream that flows into the Savannah River.

Operation of the ETF is approved and permitted by the South Carolina Department of Health and Environmental Control (SCDHEC) and the U.S. Environmental Protection Agency.

Construction

ETF Construction began in January 1987, with a process startup date of October 1988. ETF 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 South Carolina Pollution Control Act. The total project cost was $55 million.

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

Savannah River Remediation LLC manages the Savannah River Site's Liquid Waste contract for the U.S. Department of Energy. SRR is dedicated to the reduction of risks through safe stabilization treatment, and disposition of legacy radioactive waste.

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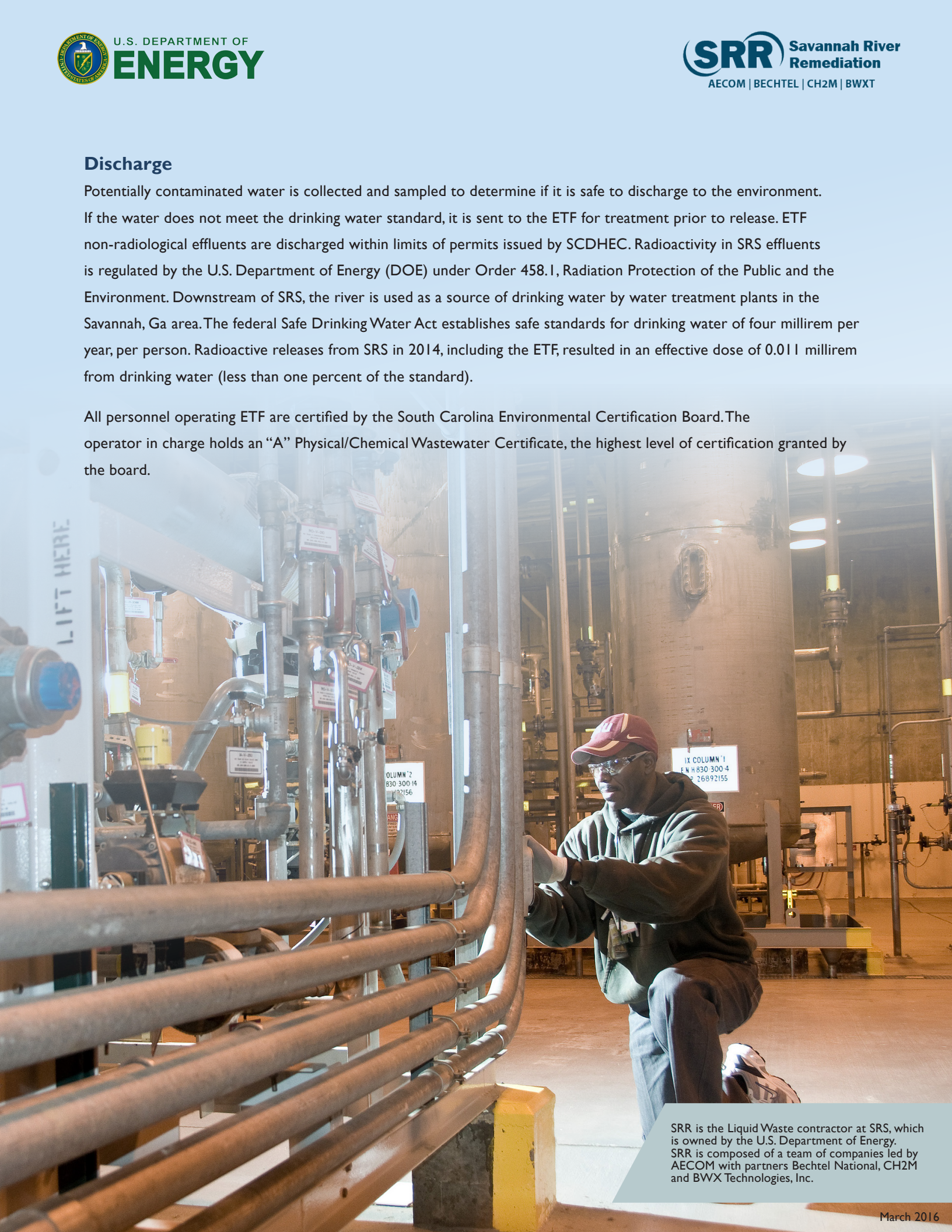
Discharge

Potentially contaminated water is collected and sampled to determine if it is safe to discharge to the environment. If the water does not meet the drinking water standard, it is sent to the ETF for treatment prior to release. ETF non-radiological effluents are discharged within limits of permits issued by SCDHEC. Radioactivity in SRS effluents is regulated by the U.S. Department of Energy (DOE) under Order 458.1, Radiation Protection of the Public and the Environment. Downstream of SRS, the river is used as a source of drinking water by water treatment plants in the Savannah, Ga area. The federal Safe Drinking Water Act establishes safe standards for drinking water of four millirem per year, per person. Radioactive releases from SRS in 2014, including the ETF, resulted in an effective dose of 0.011 millirem from drinking water (less than one percent of the standard).

All personnel operating ETF 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.



SRR is the Liquid Waste contractor at SRS, which is owned by the U.S. Department of Energy. SRR is composed of a team of companies led by AECOM with partners Bechtel National, CH2M and BWX Technologies, Inc.