

Pollution Prevention Program

The Savannah River Site (SRS) has a mature Pollution Prevention (P2) Program that focuses on continuous improvement in environmental stewardship utilizing proven P2 strategies. Pollution prevention is integral to the SRS Environmental Management System and Integrated Safety Management System. SRS embraces pollution prevention as a primary strategy to operate in a compliant, cost-effective manner that protects the environment and the safety and health of employees and the public. SRS's P2 Program is based on a preference for pollutant source reduction and recycling over waste treatment, storage, and disposal and on the preferred use of energy efficient and resource conservative practices and operations.

The Department of Energy, in conjunction with the Westinghouse Savannah River Company Team, establishes SRS's pollution prevention goals and program objectives through a Solid Waste Management Committee. A Pollution Prevention Group provides overall program leadership, coordination and guidance in the development and implementation of pollution prevention systems. A Waste Minimization Subcommittee, comprised of representatives from across the site, assists with development and implementation of waste minimization projects and strategies and dissemination of information.

The Pollution Prevention Program (P2) is made up of the following six elements:

Solid Waste Minimization

Since 1991, when the SRS P2 program was formally organized, waste generators have achieved over an 80 percent volume reduction (>800,000 cubic feet per year) of routinely generated solid hazardous and radioactive waste. The P2 Program has implemented over 800 pollution prevention projects since 1995 (beginning of formal P2 project performance tracking), allowing the site to avoid generating over 1.3 million cubic feet of radioactive and hazardous waste. These projects have resulted in the avoidance of ~\$180 million in waste management and labor costs; the site averages a life-cycle savings of about \$10 for every \$1 spent on pollution prevention projects. These reductions were primarily due to improved waste generator work practices including: improved employee awareness, substitution of reusable for consumable goods in radiological areas, enhanced work planning, non-hazardous solvent substitution, recovery of radiological areas, and use of new pollution prevention technologies.

Toxic Chemicals Reduction

SRS has met the federal goal, established in 1993's Executive Order 12856, to reduce chemical releases by 50 percent by 1999. Reportable toxic chemical releases have been reduced by ~2 million pounds since 1987 when the SRS filed its first Toxic Chemical Release Inventory Report to EPA. The site's Chemical Commodity Management Center will continue to strive to reduce chemical releases by substituting less hazardous chemicals and coordinating between chemical use, excess, and procurement activities.

Energy Conservation

SRS has established a strategy to enhance energy efficiency and conservation in all buildings by establishing an Energy Management Council and implementing a new Energy Services Company contract. SRS's Energy Management Program has already achieved the 2010 energy conservation goals mandated by Executive Order 12902, "Energy Efficiency and Water Conservation at Federal Facilities."

Environmental Emissions Reduction

The SRS Air and Water Programs ensure that all emissions to the environment meet regulatory requirements. Strategies are continually identified to meet compliance and environmental ALARA (As Low As Reasonably Achievable) guidelines.

Recycle and Reuse

SRS has an on-going comprehensive recycling program. Since 2000, SRS has recycled more than 17,000 tons of materials through its Salvage Operations and Office Recycle Programs. Examples of materials recycled from fiscal years 2000 to 2003 include:

- Scrap metal – 5,800 tons
- Office paper and cardboard – 3,600 tons
- Scrap aluminum - 66 tons
- Laser printer toner cartridges – 26,000 each

SRS has worked with the regulators and public to obtain approval for burning paper waste for energy recovery. This program, implemented at the end of FY2002, will save over \$300,000 per year in sanitary waste management and coal procurement cost.

Remediation

Environmental cleanup is a significant part of the site's current mission. The SRS strives to reduce waste generated by cleanup and stabilization initiatives by more than 10 percent per year. The P2 Program identifies techniques to reduce the environmental impact of existing waste at these sites and to minimize the generation of new waste during site closure and corrective action activities. The Radiological Operations Support Center (ROSC) was established in FY2002 to accelerate deployment

of new technologies and practices in the field. Part of the ROSC is the Containment Fabrication Facility, which works to streamline the fabrication, use, and reuse of radiological containments. These containments are custom fit for function and size to optimize work efficiency and control contaminate releases. The ROSC also works to identify and make technologies available to field operations and to disseminate information on new equipment, technologies and techniques that provide cost-effective and ALARA (As Low as Reasonably Achievable) methods for reducing pollution and waste generated by radiological work. The combinations of these two functions benefit all SRS operations and the DOE complex by being a supplier of choice for radiological control technologies and information.