

K Area Burning/Rubble Pit and K Area Rubble Pile

Background

The K Area Burning/Rubble Pit, 131-K, and the K Area Rubble Pile, 631-20G, are located east of the K Reactor at the Savannah River Site (SRS). The burning/rubble pit was approximately 240 feet long by 30 feet wide by 10 feet deep. The 631-20G rubble pile was approximately 300 feet long by 50-125 feet wide by 4-6 feet deep.

From 1955 to 1973, Pit 131-K was used for the disposal and monthly burning of combustibles of unknown origin and use, such as waste oils, rags, paper, plastics, wood, telephone poles, and rubber. In 1973, SRS stopped its practice of burning these wastes and covered the pit debris with a layer of native soil. The pit was then filled to capacity with rubble such as concrete, brick, tile, asphalt, plastics, wallboard, rubber, and non-returnable empty drums. The pit was then covered with a final layer of native soil. All burning/rubble pits were closed by 1981.

Rubble Pile 631-20G received construction waste from mid-1950 until the early 1970s. Visual surveys have identified concrete, wood, asphalt, vegetation, tree stumps, scrap metal, coal fines, and old metal containers within the rubble pile.

Environmental Concerns

SRS conducted preliminary soil, soil gas, and groundwater screening of the area in 1988 and 1991. The screening showed solvents in groundwater and low concentrations of arsenic, chromium, lead, and components of insecticides within the soil. Groundwater monitoring data results have shown that these substances are present at levels exceeding the U.S. Environmental Protection Agency's (USEPA) Safe Drinking Water Act maximum contaminant level.

Environmental Actions and Plans

In 1996, SRS conducted a Phase II Characterization at the two locations. These studies defined the nature and extent of environmental contamination and recommended actions for cleanup at the two locations.

In 1997, SRS submitted a RCRA Facility Investigation/Remedial Investigation and Baseline Risk Assessment that was approved by the USEPA and the South Carolina Department of Health and Environmental Control. In 1998, SRS submitted a Statement of Basis/Proposed Plan summarizing the characterization studies and recommending cleanup alternatives to the regulatory agencies. This proposed plan

recommended covering the contaminated pit and pile areas with native soil and utilizing mixing zone/monitored natural attenuation for the groundwater plume. Both agencies approved the proposed plan following the public comment period, and a Record of Decision was issued and signed in 2000. The remedial action field work began in October 2001.

A Post Construction Report was issued in August 2002 documenting the successful completion of the construction of the soil cover over the pit and pile areas of the Waste Unit. SRS is maintaining institutional controls over the soil cover area. Performance monitoring and annual reporting of the groundwater plume will continue until the contaminant levels fall and remain below the maximum contaminant levels established in the approved groundwater mixing zone application.