



U.S. DEPARTMENT OF
ENERGY



Savannah River Site Solid Waste Program

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Solid Waste Overview

- **What is Solid Waste?**

- Solid, semi-solid, liquid, or contained gaseous material which is discarded or has served its intended purpose

- **SRS Solid Waste Management**

- Responsible for disposition of SRS solid waste, including
 - *Transuranic (TRU) Waste*
 - *Low-Level Waste (LLW)*
 - *Hazardous and Mixed Waste (HW/MW)*
 - *Sanitary Waste*



SRS Solid Waste Generation

- Ongoing SRS Facility operations
- Basic science research
- Environmental restoration
- Decontamination and dismantling of facilities
- Examples:
 - Discarded personal protective equipment
 - Tools and equipment with residual contamination
 - Soil and groundwater cleanup materials
 - Empty containers
 - Research residues
 - Excess chemicals



Solid Waste Types

- **TRU Waste**

- Radioactive waste containing more than 100 nanocuries of alpha-emitting transuranic (atomic number greater than 92 (uranium)) radionuclides per gram of waste with half-lives greater than 20 years, except material determined to be High Level Waste (HLW)

- **LLW**

- Radioactive waste that is not HLW, spent nuclear fuel, TRU waste, byproduct material, or naturally occurring radioactive material

- **HW/MW**

- Any solid waste that is determined to be hazardous (e.g., toxic, corrosive, reactive, or ignitable) as defined by South Carolina Hazardous Waste Management Regulations (SCHWMMR) or Resource Conservation and Recovery Act (RCRA)
- Mixed waste is waste that contains both radioactive and hazardous components as defined by the Atomic Energy Act and SCHWMMR / RCRA, respectively

- **Sanitary Waste**

- Solid waste that includes both non-radioactive and non-hazardous components, typically classified as garbage or refuse

Solid Waste Management Facility (SWMF)



Transuranic (TRU) Waste

- Generated at SRS Facilities
- Stored at Solid Waste Management Facility (SWMF)
- Characterized at SWMF
- Offsite disposal at Waste Isolation Pilot Plant (WIPP) in Carlsbad NM



Low Level Radioactive Waste (LLW)

- **Generated at SRS and Naval Reactor (NR) Facilities**
- **Stored at Solid Waste Management Facility (SWMF), if needed**
- **Onsite disposal**
 - Different Disposal Unit types based on waste characteristics
- **Offsite disposal, if needed**
 - Disposal Vendor selected based on waste characteristics



Low Level Radioactive Waste (LLW) – Onsite Disposal Units



Hazardous and Mixed Low Level Radioactive Waste (HW/MW)

- **Generated at SRS Facilities**
- **Stored at SWMF in RCRA-Permitted Facilities**
 - Up to 1-year of storage allowed
- **No onsite disposal**
- **Offsite treatment, storage and disposal (TSD)**
 - TSD Vendor selected based on waste characteristics



Sanitary Waste

- Generated at SRS Facilities
- No onsite disposal or storage
- Offsite disposal at Three Rivers Solid Waste Authority Landfill



Typical Sanitary Waste Landfill Operations (not SRS)

Questions?

