



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Status Building 235-F Project

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DOE-Savannah River

Citizens Advisory Board

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Provide information regarding ongoing risk reduction activities in the 235-F Facility

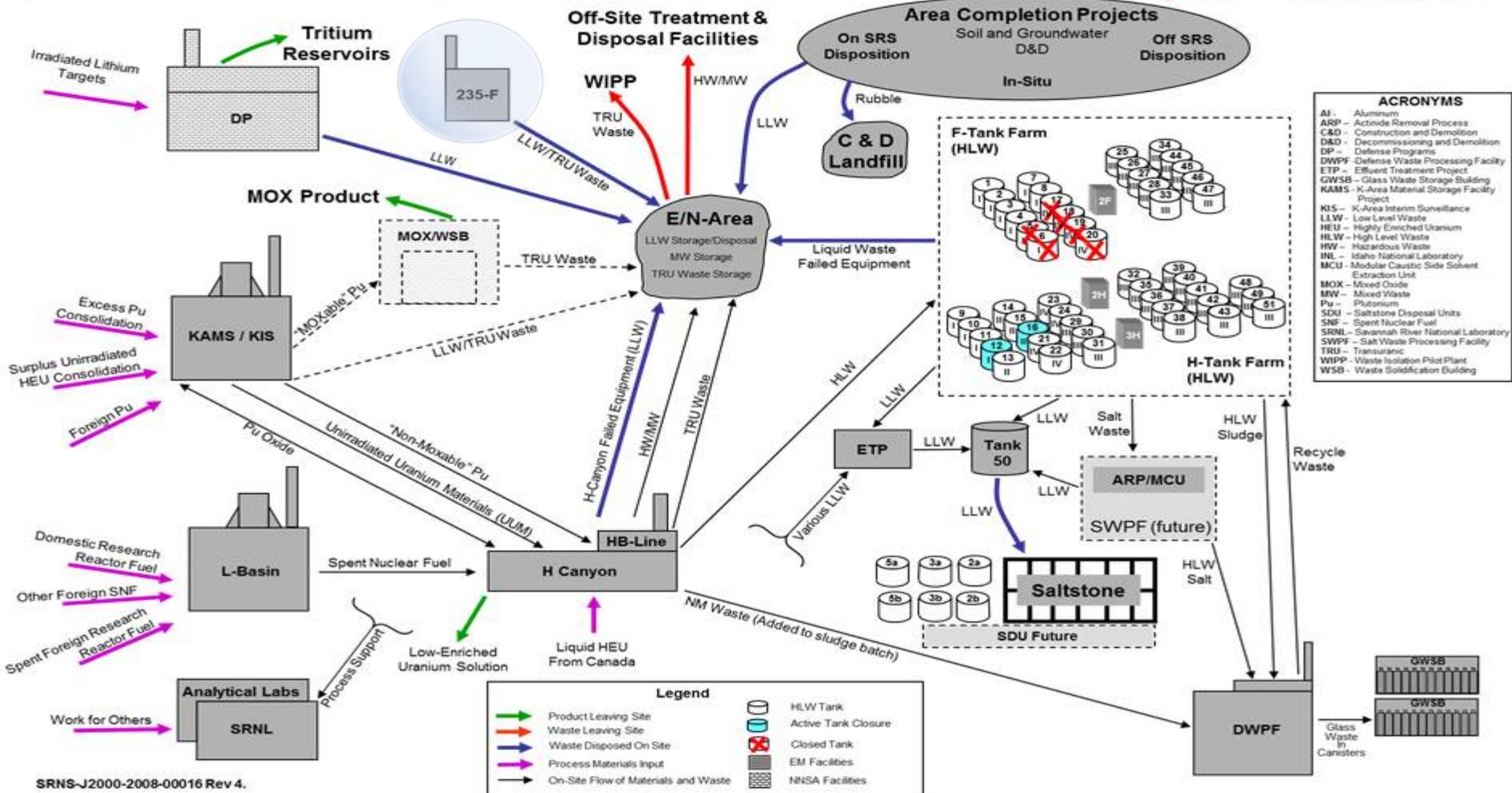


Savannah River Site Waste and Material Flow Path



This depiction of SRS activities shows only the general scope of the major facilities and missions. It does not represent all processes or all materials flow.

Off-Site Disposal
e.g., Clive, Utah,
Three Rivers Landfill



ACRONYMS	
Al	Aluminum
ARP	Actinide Removal Process
C&D	Construction and Demolition
D&D	Decommissioning and Demolition
DP	Defense Programs
DWPF	Defense Waste Processing Facility
ETP	Effluent Treatment Plant
GWSSB	Glass Waste Storage Building
KAMS	K-Area Material Storage Facility
KIS	K-Area Interim Surveillance Project
HEU	Highly Enriched Uranium
HLW	High Level Waste
HW	Hazardous Waste
INL	Idaho National Laboratory
MCU	Modular Caustic Side Solvent Extraction Unit
MOX	Mixed Oxide
MW	Mixed Waste
Pu	Plutonium
SDU	Saltstone Disposal Units
SNF	Spent Nuclear Fuel
SRNL	Savannah River National Laboratory
SWPF	Salt Waste Processing Facility
TRU	Transuranic
WIPP	Waste Isolation Pilot Plant
WSB	Waste Solidification Building

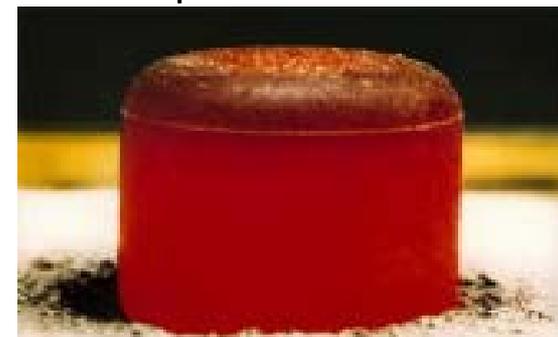


Building 235-F Background

- Building 235-F has had numerous missions over the years, with the most recent being fabrication of Pu-238 in the Plutonium Fuel Form Facility (PuFF) for use in construction of power sources for NASA deep space missions in the 1980's
- Residual material in the nine PuFF facility cells was last measured in 2006
- About 1.5 kilograms of Pu-238 material remain in the cells
- In a seismically induced full facility fire accident scenario the calculated unmitigated dose is about 29,000 rem onsite and 11.4 rem offsite
- The building is safely maintained in the surveillance and maintenance mode
- The project objective is to reduce the unmitigated onsite dose to less than 100 rem by reducing Pu-238 levels in PuFF
- The facility end state will be determined through an agreement with State Regulators



Space Mission



Fuel Form

Key Accomplishments



Radioactive Material Measurement

- Completed readiness reviews and authorized field work to begin
- Completed mechanical and electrical isolation of cells 6 – 9
- Removed outer shield windows and cleaned inner windows of cells 3 – 9
- Established cell lighting in cells 3 – 9
- Completed measurements of the amount of material in cells 3– 9

Key Plans for FY 2017

- Remove outer manipulator control arms from cells 1 – 2
- Remove outer shield windows and clean inner windows of cells 1 – 2
- Established cell lighting in cells 1 – 2
- Complete measurements of the amount of material in cells 1 – 2
- Complete mechanical and electrical isolation of cells 3 - 5

PuFF Cells 4 and 5 Current State



