



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

SRS Spent Nuclear Fuel Program Update

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SRS Spent Nuclear Fuel (SNF) Facility (L-Area)

- L Area Facility
- L Basin
- SRS Spent Fuel Program Mission
- Foreign Research Reactor (FRR) Fuel Receipts
- Domestic Research Reactor (DRR) Fuel Receipts
- Spent Fuel Cask Examples
- Cask Processing
- Summary

L-Area Facility

- One of the five original Reactors at SRS
- L-Area Reactor History
 - 1951 – Construction
 - 1954 – Startup
 - 1968 – Shutdown
 - 1985 – Restart
 - 1988 – Last Operation
- Spent Fuel Facility
 - 1996 – Reconfigured to Store RR SNF
 - 2003 – Completed Consolidation of all Site spent fuel



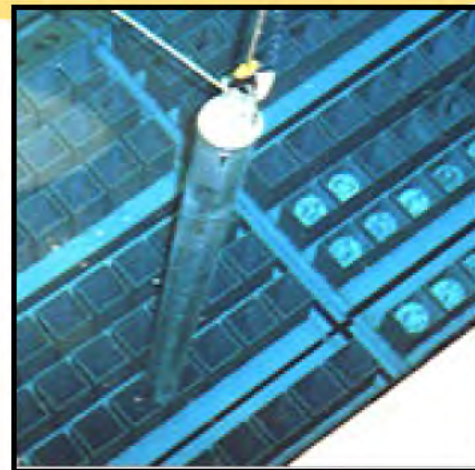
L-Area Facility

L-Basin

- 32,000 Sq ft
- 3.4 Million Gallons
- 17' to 50' Depth
- Water Clarity
- Water Purity



L-Basin



Vertical Tub Storage

SRS Spent Fuel Program Mission

- Support National Nuclear Security Administration's (NNSA) nonproliferation objectives
- Support Office of Nuclear Energy and the Office of Science
- Store legacy SRS nuclear materials
- Package and ship fuel for dissolution



High Flux Isotope Reactor (HFIR) Cores in L-Basin

Foreign Research Reactor (FRR) Fuel Receipts

Shipments Received 32 Countries and Taiwan



Domestic Research Reactor (DRR) Fuel Receipts

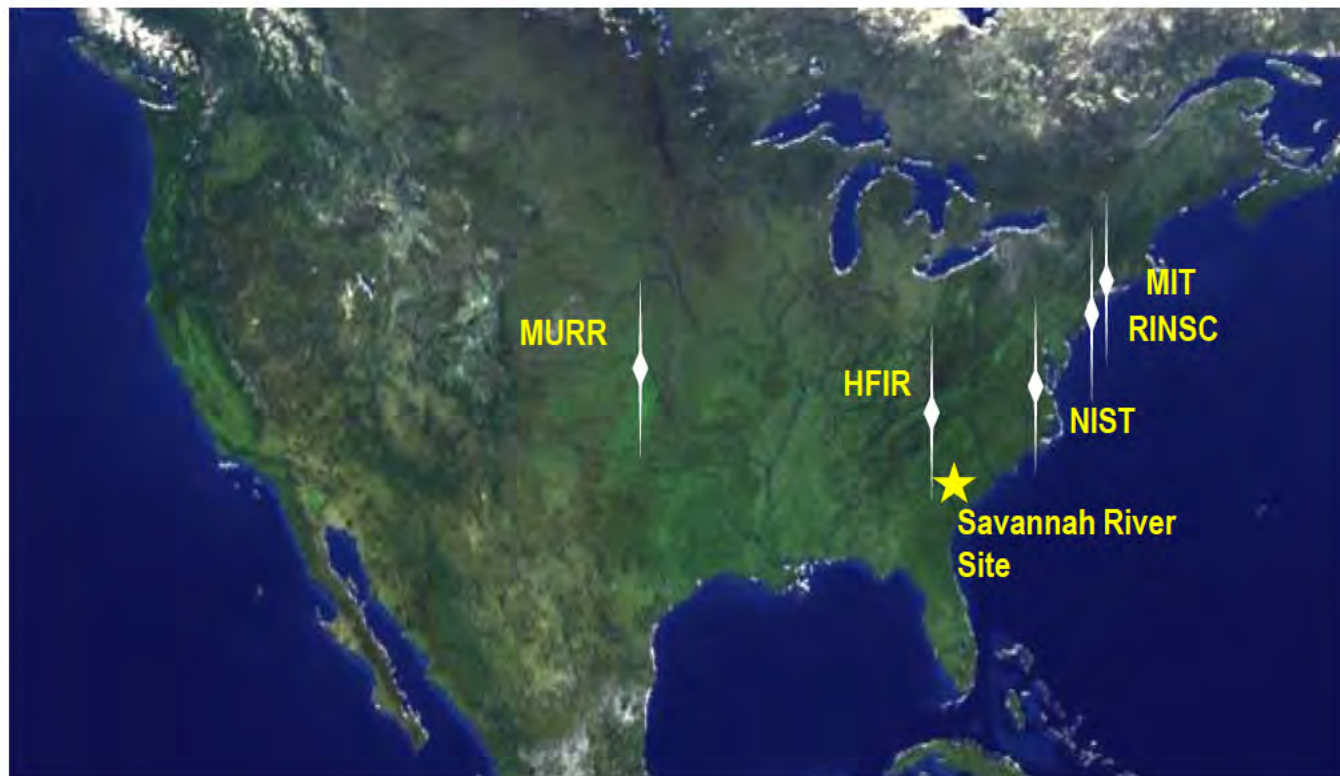
HFIR- High Flux
Isotope Reactor

MIT – Massachusetts
Institute of Technology

MURR – Missouri
University Research
Reactor

NIST – National
Institute of Standards
and Technology

RINSC – Rhode Island
Nuclear Science Center



Spent Fuel Cask Examples



TN-7/2



JRF-90Y-950K



GE-2000



LWT



JMS-87Y-18.5T



BRR



JRC-80Y-20T

Cask Processing



**Receive Cask/
Removed Impact Limiters**



Cask Placed Under Water



Lid Removed



Cask with fuel ready for verification



**Fuel Removal & placed in bucket for
transfer to Basin from Transfer Bay**



**Decon, Reassembly &
Ship Empty Cask**

Summary

- Department continues to safely store SNF in L-Basin.
- Department will continue to receive and store FRR/DRR for processing in H-Canyon.
- Basin inventory volume will continue to be managed by balancing H-Canyon processing with future SNF receipts.