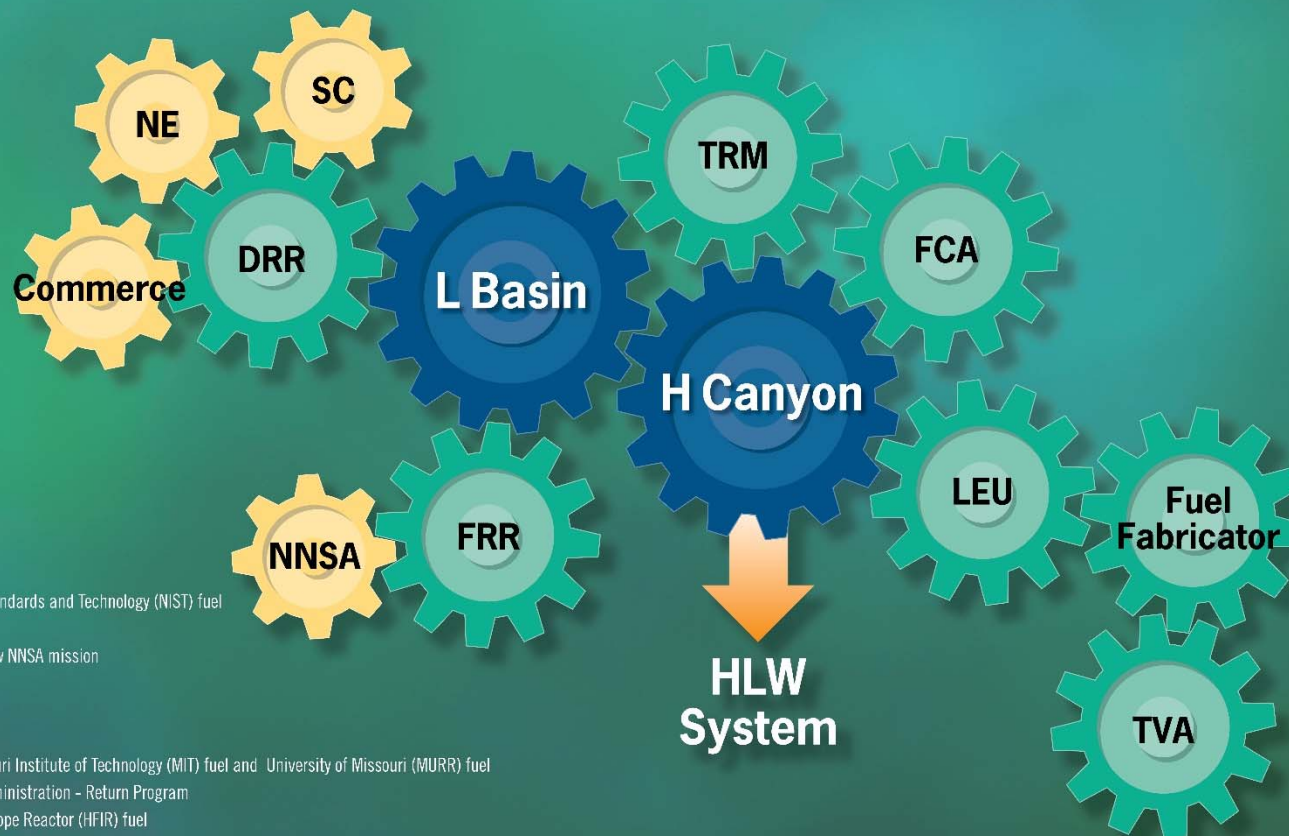


# Savannah River Site

# Integration of Nuclear Materials Program

ENVIRONMENTAL STEWARDSHIP • NATIONAL SECURITY • SCIENCE AND ENERGY



**Commerce:** National Institute of Standards and Technology (NIST) fuel

**DRR:** Domestic Research Reactors

**FCA:** Fast Critical Assembly fuel - new NNSA mission

**FRR:** Foreign Research Reactors

**HLW:** High Level Waste

**LEU:** Low Enriched Uranium

**NE:** Office of Nuclear Energy – Missouri Institute of Technology (MIT) fuel and University of Missouri (MURR) fuel

**NNSA:** National Nuclear Security Administration - Return Program

**SC:** Office of Science – High Flux Isotope Reactor (HFIR) fuel

**TRM:** Target Residue Materials - new NNSA mission

**TVA:** Tennessee Valley Authority – Commercial Power

## Key Points

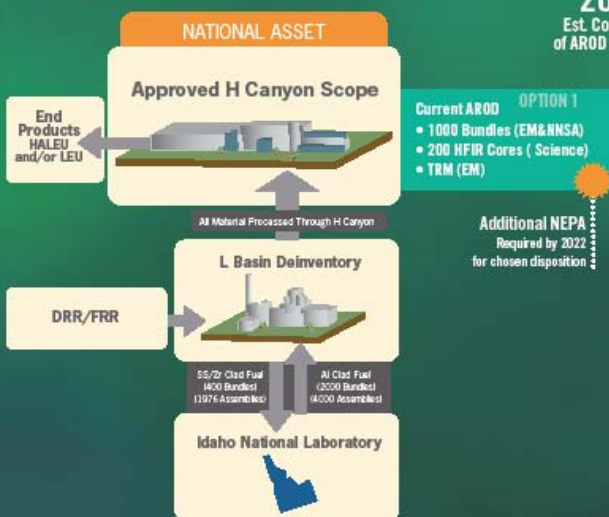
- U.S. Law states that H Canyon must remain in a high state of readiness and operational, but the Integrated Life Cycle Estimate has H Canyon shutting down by 2024
- H Canyon is the nation's only operating production-scale nuclear chemical separation facility, making it a national asset. ALL DOE offices should be considered during decision making
- H Canyon is currently the only technically proven disposition path for Spent Nuclear Fuel
- Existing MOUs define EM's responsibility (and financial liability) for SNF disposition

## Rate of Production

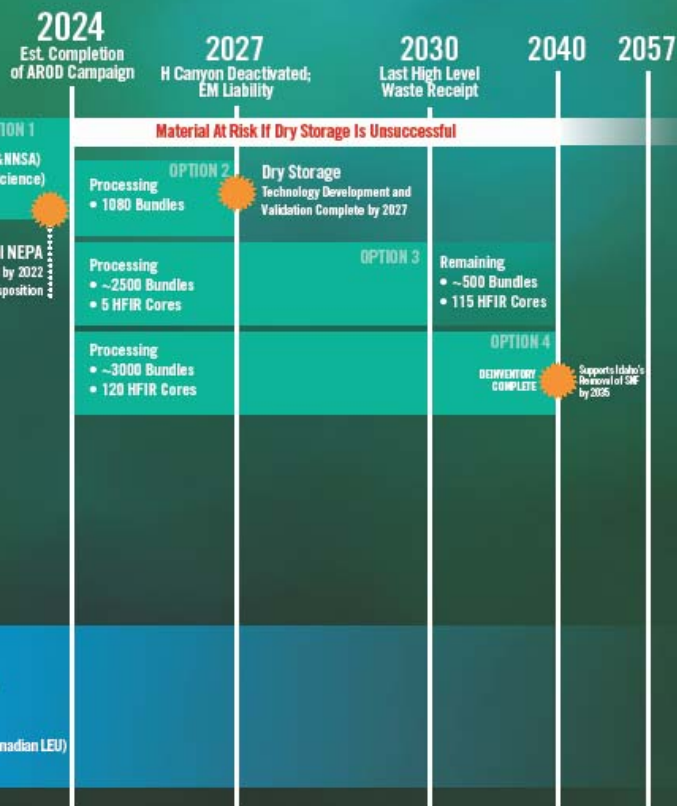
(H Canyon Cost Only)



## Current Mission (EM ~\$200M/yr)



## Potential Future Missions



## Key Decisions

### How fast/long does it run?

- Slow/Flat Funding
- Accelerated (Full) Operations
  - Option 1 Through AROD (2024)
  - Option 2 Through Dry Storage (2027)
  - Option 3 Up Until HLW Decoupling (2030)
  - Option 4 Through ALL SNF Processing (2040)

## Other Decisions

### What feed to process?

- MTR
- HFIR
- TRM
- ATR
- FCA

### What product?

- LEU
- HALEU