

# **Presentation to the Citizens Advisory Board Combined Committee Meeting**

## **Status of Disposition of Depleted Uranium Oxide**

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# Acronyms

■	DOT	Department of Transportation
■	DU	Depleted Uranium
■	DUO	Depleted Uranium Oxide
■	FY	Fiscal Year
■	IP	Industrial Package
■	LSA	Low Specific Activity
■	MOX	Mixed Oxide Facility
■	NNSA	National Nuclear Security Administration
■	NTS	Nevada Test Site
■	RCRA	Resource Conservation and Recovery Act
■	SRS	Savannah River Site
■	WAC	Waste Acceptance Criteria
■	UT	Utah



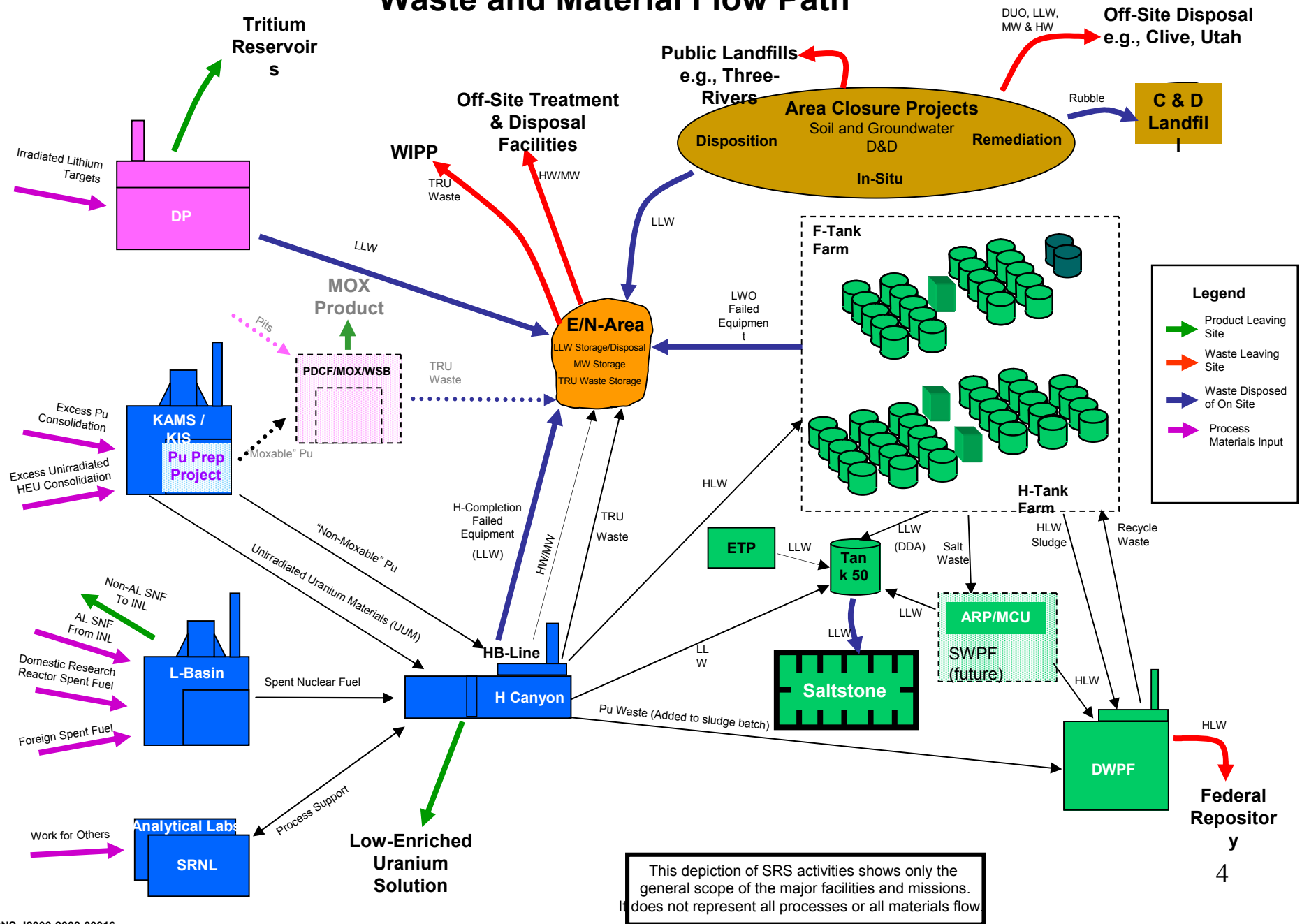
# Objective



Provide update of DUO inventory, storage conditions, and disposition activities.



# Savannah River Site Waste and Material Flow Path



# Background

- The nuclear weapons program left SRS with large inventories of DUO.
- Originally ~35,000+ drums DUO Packaged in 55-gallon, carbon steel drums, including several thousand overpacked in 85-gallon drums stored in 7 facilities at SRS.
- ~3,300 transported by rail to the Energy Solutions low level waste disposal facility in Clive, UT (previously Envirocare, UT) for disposal in FY03 using open-top gondola cars with tarps to cover and Superload Wrappers as the package.
- ~7,300 overpacked drums transported by rail to Clive, UT for disposal in FY04/05 using standard box cars.
- Two campaigns were recently completed that disposed of an additional ~9,400 drums.
- ~15,000 55-gallon drums remain in 2 storage facilities at SRS.



# Storage Buildings

- Originally 7 buildings
- Now 2 buildings
- 2 areas within SRS
- Storage conditions appropriate for material

Two buildings in F-Area; one now empty, other continues to store ~9,000 drums.



Two buildings in F-Area are empty and decommissioned to slab.



# DUO Characteristics

- DUO is low radiological hazard, DOT LSA 1.
- Contains no RCRA constituents.
- Heavy metal oxide health hazard.
- Low level waste that meets WAC for both NTS and the Clive, UT facility.





# FY03 DUO Pilot Disposition

In FY03 3,270 55-gallon drums were shipped by rail to Envirocare for disposal as low level waste.





# Disposition Project for 85-Gallon Overpacks

- **7,296 Overpacks qualified as IP-2 containers due to weight of drums.**
- **Weight in 1,600 to 1,800 pound range.**
- **Shipped in boxcars since overpacks were the DOT container.**
- **Shipments began in August 2004 and completed in January 2006.**



# Overpacks are taken from storage and loaded into boxcars



# Latest F-Area Campaign

- F-Area building containing 5,408 55-gallon drums were shipped by rail using SRS railcar fleet of gondola cars with hard tops.
- Rail cars originally from the Fernald Closure Project, now owned by SRS, qualify as IP-1 containers.
- NNSA paid for disposition to be able to use the building for MOX construction laydown.



# F-Area Campaign Loading





# Continued



# F-Area Campaign Shipping



# F-Area Before & After





# Arrival in Clive, UT



# R-Reactor DUO Campaign

- R-Area building containing 4,018 55-gallon drums are being shipped by truck to NTS for disposal.
- Truck shipping used versus rail because:
  - Rail cars were used for F-Area Campaign at the same time
  - No longer any rail spur to R-Area
- Shipping to NTS versus Clive because no cost to SRS for disposal.
- Reason for campaign is RCRA regulatory commitment to complete characterization of R-Reactor building in FY09 requires DUO to be removed.
- Sufficient drums removed by early October to complete characterization.



# R-Reactor Before



# R-Reactor Loading





# R-Reactor Loading cont.



# Summary



- Two campaigns containing ~10,600 drums completed FY03-06.
- Two campaigns containing ~9,400 drums in FY08-09.
- Remaining DUO is being stored safely until final disposition is accomplished.

