

# *Facility Stabilization - Focused on Outcomes*



**P. M. Knollmeyer**

**Assistant Manager, Nuclear Materials and Facility Stabilization**

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## Facility Stabilization - Focused on Outcomes

### Mission

	Nuclear Material Stabilization Project	River Corridor Project
•Manage safe storage of Special Materials (Pu, U)	✓	✓
•Deactivate nuclear facilities to reduce risks and reduce Surveillance & Maintenance costs	✓	✓
•Stabilize high-risk nuclear materials	✓	
•Assist other deactivation projects in the DOE Complex Through National Facilities Deactivation Initiative		✓



## Facility Stabilization - Focused on Outcomes

### Scope

- **Manage 101 facilities & 216 waste sites in a safe & compliant condition until deactivation**
- **Provide safeguards & security for 4 metric tons of Plutonium & other Special Nuclear Materials at PFP**
- **Stabilize 6015 items of Plutonium Metal, Alloys, Plutonium Oxide and Polycubes. Stabilize 4,300 L of Plutonium Solution, & complete cementation of 3,400 kg bulk Plutonium residues.**



## Facility Stabilization - Focused on Outcomes

### Scope (Continued)

- Relocate radioactive materials to include Spent Fuel assemblies and remote handled transuranic waste, located in the 324/327 complex, away from the River Corridor to the Central Plateau
- Remove contaminated equipment and highly radioactive dispersible material from 324 B-Cell
- Decontaminate and stabilize the hot cells and 7 buildings within the 324/327 complex.
- Stabilize 15 buildings that are a part of the 300 Area Fuel Supply Facilities and disposition ~1800 metric tons of uranium materials



### Assumptions

- **Plutonium stabilization at PFP must continue to meet Secretary of Energy commitments to the Defense Nuclear Facilities Safety Board**
- **324 B-Cell closure activities will be prioritized ahead of Pu stabilization under new FY02 prioritization criteria**
- **Tank 241-Z-361 funding requirements uncertain pending completion of core sample analysis and regulatory path**
- **“Base Cost” are reduced in FY 2001 & 2002 facilitating an increased level of cleanup progress to be accomplished in those years**



## Facility Stabilization - Focused on Outcomes

### Priorities: River Corridor

- **324/327 Deactivation and Closure (including TPA M-89, M-92)**
- **300 Area Uranium Disposition (MX-92-06T)**
- **300 Area Miscellaneous Facility S & M and Deactivation**
- **300 Area Nuclear Material Safeguards and Security**
- **300 Area Accelerated Cleanup \***
- **309/PRTR Deactivation \***

\* Funded in +10% over target increments



## Facility Stabilization - Focused on Outcomes

### Priorities: Central Plateau

- PFP Plutonium Stabilization (solutions, oxides, metals, residues, polycubes)
- PFP Plutonium Packaging, Storage, Disposition
- PFP Plutonium Safeguards and Security
- Tank 241-Z-361
- 200 Area Miscellaneous Facility S & M and Deactivation



## Facility Stabilization - Focused on Outcomes

# Accomplishments

### River Corridor:

- **Continued progress at 324 Building B-Cell**
  - **Complete size reduction of the 2A Rack**
  - **Complete procurement of the ASTD funded B-Cell robotics platform**
  - **Transfer waste materials to the Low Level Burial Grounds and Central Waste Complex**
- **Initiate Uranium Disposition activities**



## Facility Stabilization - Focused on Outcomes

### Accomplishments (Continued)

#### Central Plateau:

- Installation and startup of  $\text{Mg}(\text{OH})_2$  solution stabilization process
- Initiate disposition of plutonium bearing residues
- Complete thermal stabilization of up to 15% of plutonium solids; includes startup of three additional furnaces
- Initiate operation of bagless transfer system packaging; i.e. inner welded container
- Complete Tank 241-Z-361 sample characterization and recommend regulatory path forward



# Facility Stabilization - Focused on Outcomes

## Workscope Comparison (Continued)

Description	FY2000	FY2001	FY2002	
Safe and Secure Plutonium Storage	✓	✓	✓	CP
Manage excess facilities in the 200 Areas	✓	✓	✓	CP
Manage excess facilities in the 300 Area	✓	✓	✓	RC
309/PRTR deactivation *	✓	✓	✓	RC
200 Area Miscellaneous Facility Deactivation	unfunded	unfunded	unfunded	CP
300 Area Miscellaneous Facility Deactivation	unfunded	unfunded	unfunded	RC

✓ = Fully Funded

\* = Funded @ 10% over target



## Facility Stabilization - Focused on Outcomes

### Workscope Comparison (Continued)

Description	FY2000	FY2001	FY2002	
PUREX/B Plant roof replacement	unfunded	unfunded	unfunded	CP
Support IAEA Activities	✓	✓	✓	CP
Tank 361 Characterization/ Remediation	✓	✓	✓	CP
Plutonium Stabilization DNFSB 94-1	✓	✓	✓	CP
Pu Packaging at PFP	✓	✓	✓	CP
PFP deactivation	Unfunded	Unfunded	Unfunded	CP
324 Closure B Cell (TPA M-89)	✓	✓	✓	RC

✓ = Fully Funded



# Facility Stabilization - Focused on Outcomes

## Workscope Comparison (Continued)

Description	FY2000	FY2001	FY2002	
Begin Deactivation of 324 and 327 hot cells (balance of plant)			Unfunded	RC
300 Area Uranium Disposition	Unfunded	Unfunded	Unfunded	RC
300 Area Accelerated Cleanup			✓ *	RC
324 Legacy Waste Removal		✓ *	✓ *	RC
324 Liquid Waste Handling System		Unfunded	✓ *	RC

✓ = Fully Funded

\* = Funded @ 10% over target



## Facility Stabilization - Focused on Outcomes

# Workscope Comparison (Continued)

Description	FY2000	FY2001	FY2002	
300 Area Fuel Supply/RCRA Closure Activities (303K Building)	Unfunded	✓	Complete	RC
Complete 300 Area Fuel Supply Deactivation	Unfunded	Unfunded	Unfunded	RC

✓ = Fully Funded



## Funding Profile

