



# **DUF<sub>6</sub> Project Update**

**August 18, 2005**



# Presentation Outline

- 1. Project Overview**
- 2. Project Status**
  - Summary
  - Construction
  - Operations
  - Future Activities
- 3. Summary**



# Overview

- Depleted Uranium Hexafluoride ( $\text{DUF}_6$ ) is a by-product of uranium enrichment
- $\text{DUF}_6$  was placed in cylinders that accumulated over time in cylinder storage yards at three DOE gaseous diffusion plants

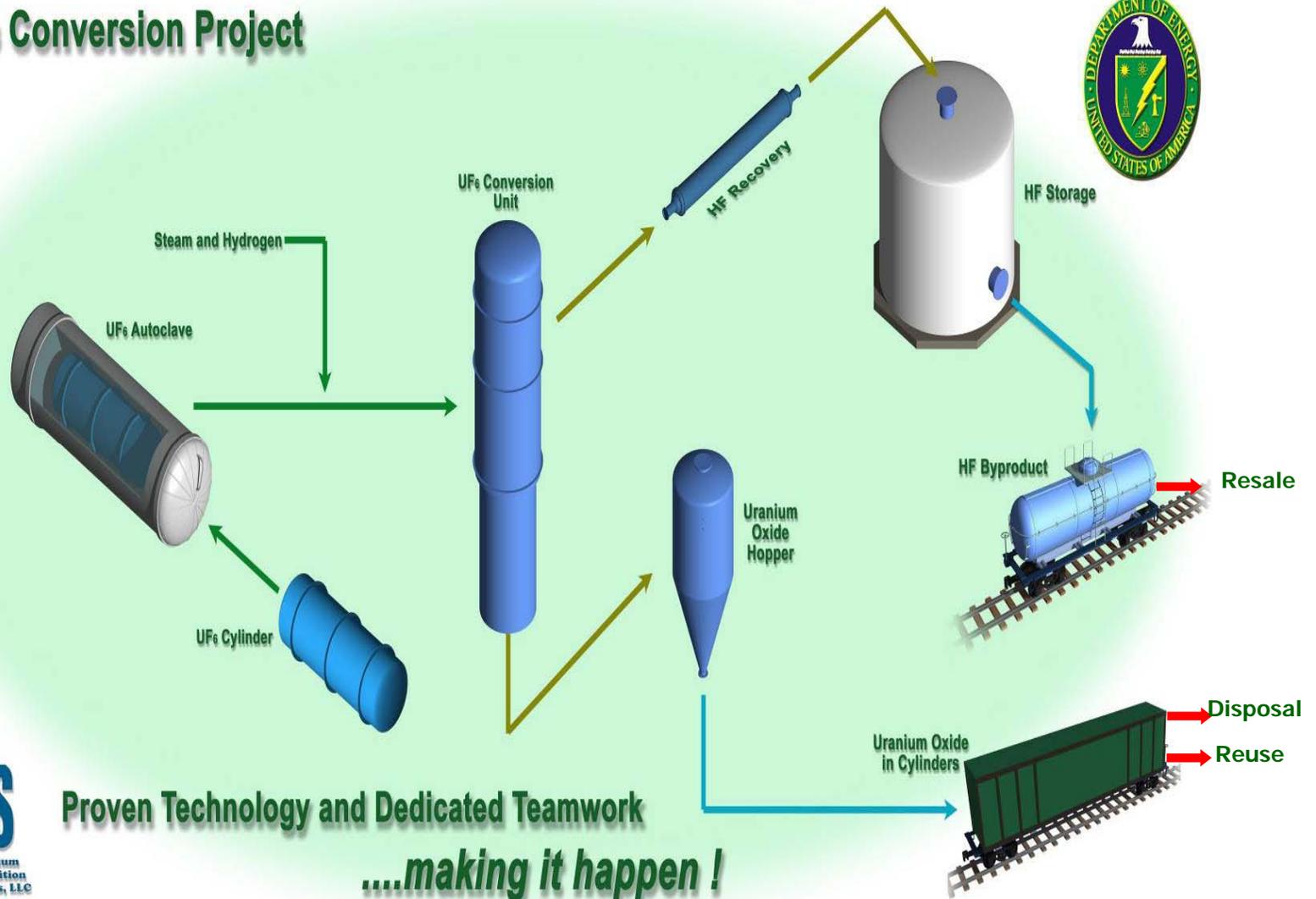
DOE Facility	# $\text{DUF}_6$ Cylinders
Paducah Gaseous Diffusion Plant	36,191
Portsmouth Gaseous Diffusion Plant	16,109
East Tennessee Technology Park (ETTP)	4,822
Total Amount and Number of Cylinders	700K MT 57,122





# DUF<sub>6</sub> Conversion Process Overview

## DUF<sub>6</sub> Conversion Project



Proven Technology and Dedicated Teamwork  
....making it happen !

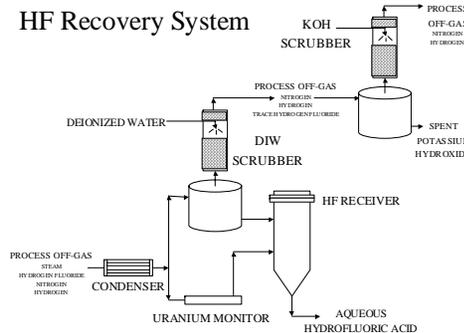
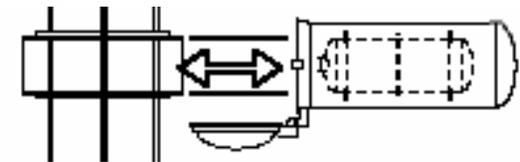
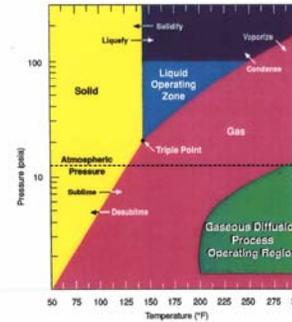




# Overview

## Key Safety Aspects

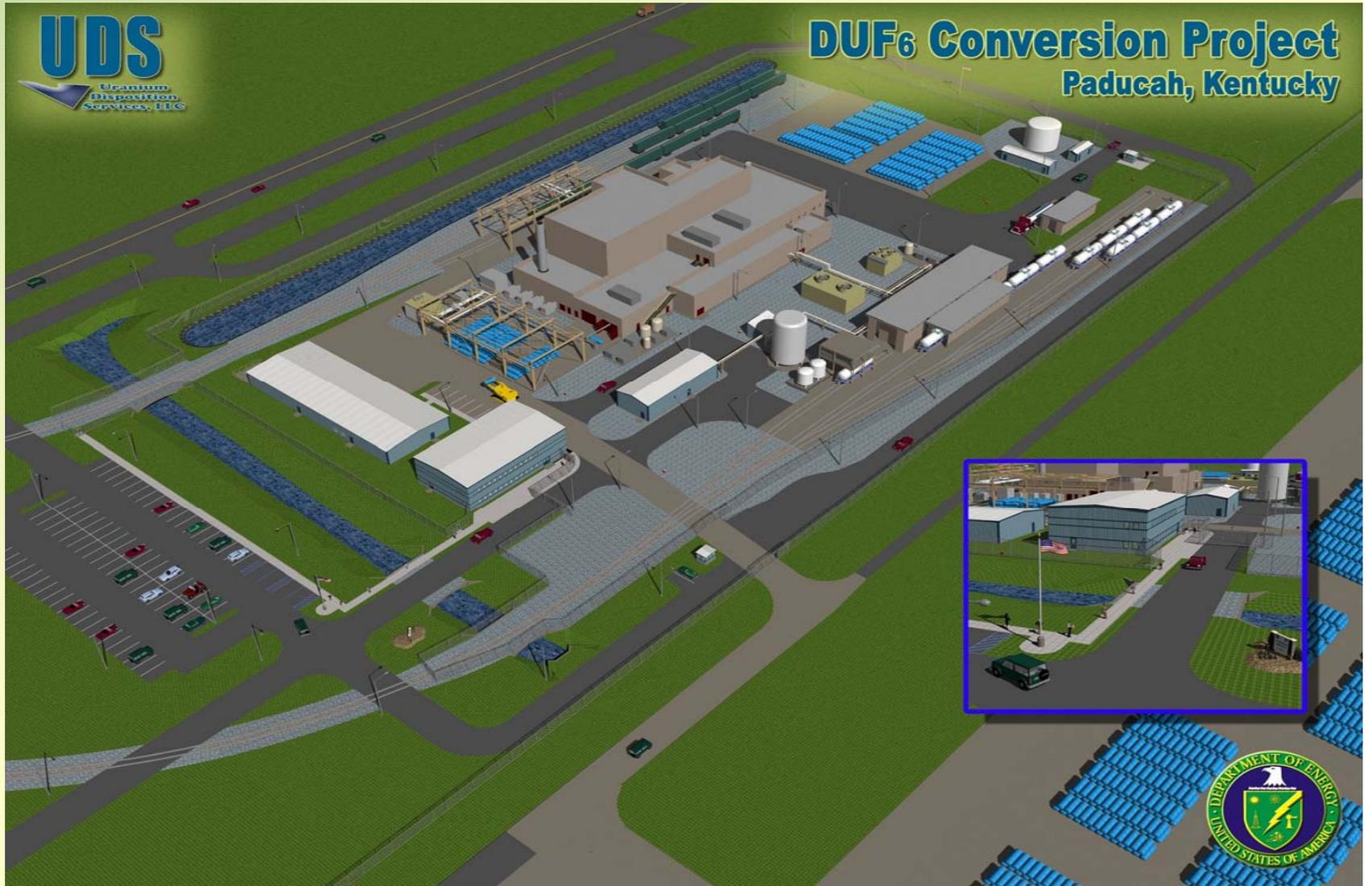
- Conversion process operates at near atmospheric pressures
- UF<sub>6</sub> vaporization via electrical power for better temperature control
- Cylinder autoclave is an ASME rated pressure vessel in case of a cylinder rupture
- Sintered metal filters remove all uranium, additional down stream detector
- HF condenser removes most HF, then scrubbers eliminate balance
- Centralized, automated process controls
- Air Emissions within regulatory limits
- Air Permit awaiting final KY signature





**UDS**  
Uranium  
Disposition  
Services, LLC

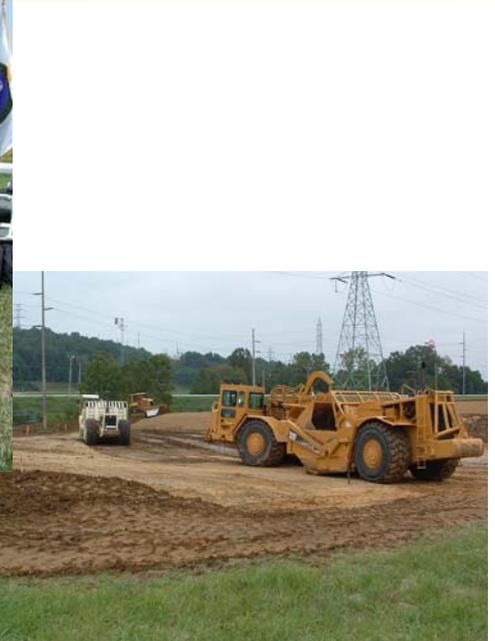
# DUF<sub>6</sub> Conversion Project Paducah, Kentucky





# DUF<sub>6</sub> Project Status Summary

- **Project Background**
  - Contract awarded to UDS August 02
  - Preliminary Design initiated August 03
  - ROD signed July 20, 2004
  - Construction initiated:
    - Paducah July 27, 2004
- **Engineering**
  - Final Design in process
  - Review & Approval in process
- **Construction**
  - Site preparation work complete
  - Above Ground Facilities July, 2005
  - Peak construction activities ~ summer, 2006
  - Operational Readiness Review 2007
- **Operations**
  - Began Cylinder S&M June 27, 2005
  - Full Operations 2007





# Construction Status

<b><i>Subcontracts Site Work CD-3A June 2005</i></b>	<b>Value</b>
<i>– Civil/Site Clearing, S-10 = 100% complete</i>	\$2,590,000
<i>– Site Area Utility Piping, S-12 = 100% complete</i>	\$1,100,000
<i>– Site Area Electrical, S-13 = 100% complete</i>	\$1,170,000
<i>– Cylinder Yard Fencing, S-16 = 100% complete</i>	\$ 670,000
<i>– Field Office Temporary, S-17 = 60% complete</i>	\$ 200,000



# Future Construction

## ***Subcontracts Site Work and Building Packages***

## **Status**

- Bayou Creek Bridge/Rail Spur, S-11 Bid
- Utility Tie In, S-14 (USEC) Evaluation
- Ground Modification Conversion Bldg., S-19 Evaluation
- Warehouse Foundation, S-20 Construction
- Conversion Building, S-21 Awarded Engineering
- Warehouse Building, S-24 Awarded
- Administration Building, S-25 Bid

Total Construction Value 7 Packages - \$11,358,000



# Construction Status

- Local subcontractor involvement
- National Labor Agreement
- Project capital construction estimate - \$91,000,000
- ES&H performance – Excellent
- Temporary power/street lighting activated May 19, 2005
- Thirty (30) subcontract packages



# Cylinder Yard Operations Status

- **Paducah cylinder yard was transitioned from BJC to UDS on June 27, 2005**
  - Cylinder yards reconfigured to Property Protection Area
  - Personnel orientation, signup, training and qualification conducted June 27-29.
  - S&M Operations began June 30.





# Operations Status

## Employment

- UDS Company employees
  - July 2005 – 16 personnel
  - July - September, 2005 – 2 - 4 additional
  - Permanent Staff – 150
  - Ramp up 6 months prior to Operation Readiness Review
  
- Operations, Technical and Management Positions



# ISMS Performance Metrics

- **Metrics**
  - 72,565 Site Hours Worked (thru July 31)
  - 0 Non-recordable Accident/Illness Event
  - 0 Recordable Injuries/Illnesses
  - 0 Lost/Restricted Work Cases
  - 0 Notice of Violations (Environmental, Security, Transportation)



# Future Operations Activities

- Operate and Maintain Cylinder Yards
- Complete Conversion Operations Planning and Procedures
- Staff and Train Personnel
- Participate in Operation Readiness Review and Start Up
- Interface with DOE