Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Surface Water Operable Unit (On-Site)

Contact Persons:
U.S. Department of Energy: David Dollins
Paducah Remediation Services LLC: Tracey Brindley/Craig Jones/Jana White
Commonwealth of Kentucky: Jon Maybriar/Brian Baker
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup

Description: The Surface Water Operable Unit (On-Site) Project includes a site investigation to identify contamination zones posing unacceptable risks in ditches and outfalls, including Sections 3, 4, and 5 of the North-South Diversion Ditch. The site investigation scope also includes an evaluation of whether additional sediment control measures are needed, as well as actions for potential legacy releases associated with the storm sewer system. The results of the site investigation will be documented in a Site Investigation/Baseline Risk Assessment Report and non-time-critical removal action documentation, as appropriate.

Key documents:

- D2 Sampling and Analysis Plan for Site Investigation and Risk Assessment of the Surface Water Operable Unit (On-Site), DOE/OR/07-2137&D2/R2
- D2 SWOU (On-site) Site Investigation and Baseline Risk Assessment Report at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/LX/07-0001&D2
- D1 SWOU Removal Notification (On-Site), DOE/OR/07-0011&D1
- D1 SWOU Engineering Evaluation/Cost Analysis (On-Site), DOE/OR/07-0012&D1

Issues: None

Recent accomplishments:

- Received Kentucky approval (3/5/07) on the D1 SWOU Removal Notification
- Responded to comments received on the D1 SWOU SI/BRA report from EPA and KY and submitted the D2 report on 4/13/07
- EPA and KDEP requested a 30 day extension on their review of the D2 SWOU SI/BRA

Activity over next 60 days:

- Continue development of the SWOU (On-site) EE/CA
- Issue extension request for the AM and RAWP based upon the extension of the D2 SWOU SI/BRA
- Initiate the SWOU (On-site) Action Memorandum

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: DOE Material Storage Areas (DMSAs)

Contact Persons:
U.S. Department of Energy: Jeff Snook
Paducah Remediation Services LLC: John Samples
Commonwealth of Kentucky: Jon Maybriar/Leo Williamson
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: The 160 DMSAs are non-leased areas inside buildings, as well as outdoor areas. DOE accepted the return of the areas, and the material and equipment they contained from USEC on December 31, 1996, to facilitate NRC certification of the gaseous diffusion plants. At that time, most of the contents needed detailed inventory, characterization, and disposition. Since that time, DOE and contractors have been documenting contents, resolving environmental concerns such as draining and disposing of oils from old equipment, and segregating and disposing of wastes.

Key documents:

- PGDP Department of Energy Material Storage Area Characterization/Remediation Plan (BJC/PAD-186/R4), April 2001
- Agreed Order DWM-31434-042
- Documented Safety Analysis (DSA)

Issues:

- None

Recent accomplishments/activities:

- In May:
  - Characterized 4,920 ft^3 of material (including sampling)
  - Packaged 8,729 ft^3 of material
  - Disposed of 4,593 ft^3 of material

Activity over next 60 days:

- Continued characterization and disposition

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Scrap Metal Removal Project

Contact Persons:
U.S. Department of Energy: Reinhard Knerr
Paducah Remediation Services LLC: Chris Marshall
Commonwealth of Kentucky: Jon Maybriar
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: More than 30,500 tons of scrap metal exists at the PGDP, excluding nickel ingots. This project involves the removal of 22,784 tons of general scrap metal, 1,969 tons of aluminum ingots, and approximately 5,747 tons of classified scrap. The project does not include the recycling or disposal of 9,700 tons of nickel.

Key documents:
- Engineering Evaluation and Cost Analysis
- Action Memorandum
- Removal Action Work Plans
- Agreed Order DWM-31434-042
- Documented Safety Analysis (DSA)

Issues: None

Recent accomplishments:

- On March 8, 2007, completed demobilization of field operations

Activity over next 60 days:

- Prepare completion report
- Submit Draft D0 Removal Action Report for the Scrap Metal Removal Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky by June 30, 2007 for DOE review and comment

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Decontamination & Decommissioning (D&D)

Contact Persons:
U.S. Department of Energy: Rob Seifert
Paducah Remediation Services LLC: Don Ulrich/Brad Montgomery
Commonwealth of Kentucky: Jon Maybriar
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: The D&D project has completed development of Comprehensive Environmental Response, Compensation, and Liability Act regulatory documentation and has initiated actual D&D of the C-410/420 Feed Plant Complex. The current scope of D&D includes infrastructure removal on the C-410/C-420 complex, as well as ongoing surveillance and maintenance of the C-340 Metals Plant complex and the balance of the C-410/C-420 complex. Scope also included development of Safety Basis Documentation for the removal of equipment, piping, and stored material from the C-410 Complex. Operations at both complexes ended in 1977. Also, included in this scope of work is the D&D of inactive facilities. Currently, CERCLA documentation has been completed for D&D of the C-402 Lime House, the C-405 Incinerator and the C-746-A West End Smelter. D&D was completed in August 2006 at the C-402 Lime House and is ongoing at the C-405 Incinerator.

Key documents (C-410 and Inactive Facilities):
- Engineering Evaluation/Cost Analysis (EE/CA)
- Action Memorandum
- Removal Action Work Plan (RAWP)
- Cultural Resources Assessment of C-410 Complex
- Agreed Order DWM-31434-042
- Removal Action Report

Issues: None

Recent accomplishments/activities:
- **C-410**
  - Continued asbestos abatement using glovebags in Zones 51 , 33, and 47.
  - Abatement complete in Zone 44, 38, and 39.
  - Completed Zone 34 abatement
  - Completed Zone 41 South enclosure construction and abatement
  - Completed construction and abatement in Zone 41 North containment. Construction ongoing in Zone 51 Mezzanine enclosures using of demolition abatement regulations following discussions with the Commonwealth of Kentucky
  - Approximately 35% complete on Zone 53 transite, cable, and cable tray removal, and approximately 5% complete in Zone 54 Transite Removal.
  - Shipped 5,800 cubic feet of asbestos waste and PCB Bulk Product Debris waste from C-410 activities for disposition at EnergySolutions in Utah.
- **C-405**
  - Completed asbestos abatement on the east incinerator
  - Pumped water from east sump
  - Initiated removal of east incinerator
- **C-746-A**
  - Submitted mobilization work package for approval

Activity over next 60 days:

- **C-410**
  - Continue packaging and characterization of loose materials and demolition debris
  - Continue piping and electrical equipment demolition in zones 35 through 52 to allow for asbestos abatement activities
  - Continue cable tray and transite removals in Zones 53 and 54.
  - Complete asbestos containment structure construction in Zone 51 Mezzanine, and begin asbestos abatement
  - Continue asbestos abatement using glovebag techniques in Zones 47, 33, and 51
- **C-405**
  - Complete removal of siding and removal of interior block wall in C-405; complete structural demolition to the concrete slab, back fill east and west sump pits
- **C-402**
  - Submit D1 Removal Action Report for regulatory review
- **C-746-A**
  - Complete loose material removal in C-746-A West End Smelter
  - Initiate fieldwork for C-746-A West End Smelter D&D

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Groundwater Operable Unit

Contact Persons:
U.S. Department of Energy: David Dollins
Paducah Remediation Services, LLC: Tracey Brindley/Mike Clark/Bryan Clayton
Commonwealth of Kentucky: Mike Guffey/Todd Mullins
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: Jim Smart/Bobby Lee

Purpose: Environmental Restoration

Description: This project addresses environmental remediation of groundwater contamination on a site-wide basis at the Paducah Gaseous Diffusion Plant. The main contaminants of concern are trichloroethylene (TCE) and technetium-99 (^{99}Tc). Remedial actions will be designed and implemented after completion and signing of Records of Decision (RODs).

Specific projects include:
- NE & NW Plumes Pump and Treat
- Southwest Plume
- Dissolved Phase Plumes Remedy
- C-400 Interim Remedial Action

Key documents:

- Feasibility Study of the Groundwater Operable Unit at PGDP (DOE/OR/07-1857)
- Agreed Order DWM-31434-042
- Six-Phase Treatability Report (DOE/OR/07-2113)
- **C-400 Interim Action**
  - Proposed Remedial Action Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2114)
  - Record of Decision for Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2150&D2/R2) Remedial Design Work Plan for the Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2214&D2)
  - Remedial Design Work Plan for the Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2214&D2)
  - Remedial Design Support Investigation Characterization Plan for the Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2211&D2)
  - Land Use Control Implementation Plan: Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Contamination at the C-400 Cleaning Building (DOE/OR/07-2151&D2/R1)
  - 90% Remedial Design Drawings and Technical Specification Package, for the Groundwater Operable Unit Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/LX/07-0005&D1)
  - Remedial Action Work Plan for the Interim Remedial Action for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky (DOE/LX/07-0004&D1)

- **Southwest Plume**
    - Southwest Plume Site Investigation Work Plan (DOE/OR/07-2094)
    - Site Investigation Report for the Southwest Groundwater Plume (DOE/OR/07-2180&D2)

Issues: Discussions with the State of Kentucky and EPA are continuing concerning the use of TCE degradation factors utilized in groundwater modeling to support risk assessment development in the Southwest Plume SI/RA report. A technical working group to evaluate the potential for TCE degradation at the PGDP has been developed and is being led by the KRCEE. The group includes technical assistance from the Commonwealth of Kentucky; USEPA - Region 4; DOE – Savannah River; Idaho National Engineering Laboratory; DOE – Headquarters; DOE - PPPO office and Paducah Remediation Systems. A sampling and analysis plan has been developed by the technical working group and is being implemented during 2007.

Recent accomplishments:

- **C-400**
    - Transmitted the D1 Remedial Design Report (90% Design) to the EPA and Kentucky on 4/9/07
    - Transmitted the D1 Remedial Action Work Plan to the EPA and Kentucky on 5/9/07

- **Southwest Plume**
    - Submitted draft Comment Response Summary on 2/14/07 for the D2 Southwest Plume SI for review and acceptance and to initiate closure of the informal dispute resolution.
    - Development of a D2/R1 Southwest Plume SI is underway that encompasses the incorporation of the 2/14/2007 Comment Response Summary requirements and the 3/14/2007 Commonwealth of Kentucky requirements.
    - Groundwater samples have been obtained and being processed at the Idaho National Laboratory for enzyme analysis which can provide an indication of aerobic degradation of the TCE contaminant.

Activity over next 60 days:

- **C-400**
    - Evaluate and respond to regulator comments on the D1 Remedial Design Report and the D1 Remedial Action Work Plan
- **Southwest Plume**
    - Complete incorporation of EPA and Kentucky comments into a redline D2/R1 Southwest Plume Site Investigation Report
    - Perform second round of groundwater sampling from selected monitoring wells for stable carbon isotopes analysis to assist in TCE degradation analysis in support of the agreements made in closing the informal dispute made on the SW Plume

FFA Milestones:

- D1 Remedial Design Report (90% design) for C-400 by 4/7/07 (completed)
- D1 Remedial Action Work Plan for C-400 by 4/7/07 (milestone modification to 5/9/07 pending) (completed)
- D2/R1 SI Report for Southwest Plume within 60 days after close of the informal dispute period

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Solid Waste Contained Landfill

Contact Persons:
U.S. Department of Energy: Jeff Snook
Paducah Remediation Services LLC: Matt LaBarge/Paul Corpstein
Commonwealth of Kentucky: Todd Hendricks
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Waste Disposition

Description: The C-746-U operating landfill and support facilities are located on 60-acres of DOE property near Ogden Landing Road, operating under a permit from the Kentucky Division of Waste Management (KDWM). Landfill disposal operations began in 1997. DOE uses the landfill for disposal of solid waste generated from its operations at the Paducah site. Examples of wastes accepted include non-hazardous soil and debris from environmental cleanup and other DOE projects, protective clothing worn by workers, paper, packaging, and landfill office wastes. No waste classified as hazardous or radioactive is accepted.

Key documents:
- Environmental Assessment for the Construction, Operation and Closure of the Solid Waste Landfill at the Paducah Gaseous Diffusion Plant (DOE/EA-1046)
- Environmental Assessment on the Implementation of the Authorized Limits Process for Waste Acceptance at the C-746-U Landfill (DOE/EA-1414)
- Waste Acceptance Criteria for the Department of Energy Treatment, Storage, and Disposal Units at the Paducah Gaseous Diffusion Plant (BJC/PAD-111R)
- C-746-U Landfill Solid Waste Disposal Facility Permit Number 073-00045

Issues:
- KDWM issued a final renewed permit for DOE consideration. Permit covers U, S and T Landfills. DOE is currently reviewing the permit and will submit comments to KDWM by June 24. DOE will submit additional information in support of the Request for Minor Modification by June 28, to include a revised attachment 27. KDWM issued NOD #2 based on the previous Minor Modification omitting a revision to the Closure plan in Attachment 27 of the 1995 Application.

Recent accomplishments/activities:
- Began operation of the Leachate Treatment Facility and discharge of treated leachate at Outfall 19. Treated 10,900 gallons by the end of the month.

Activity over next 60 days:
- Submit 2007 Annual Survey. Submit comments on permit renewal. Submit revised Closure Plan. Continue disposal of construction debris and other non-hazardous solid waste streams

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Burial Grounds Operable Unit

Contact Persons:
U.S. Department of Energy: Jeff Snook
Paducah Remediation Services LLC: Tracey Brindley/Karen Holland
Commonwealth of Kentucky: Mike Guffey
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: A Remedial Investigation/Feasibility Study (RI/FS) Scoping Document and the RI/FS Work Plan for the investigation of the Burial Ground Operable Unit (BGOU) at PGDP have been developed. The documents utilize a compilation of sampling information collected on and around the PGDP over the course of the last ten years. The BGOU includes Solid Waste Management Units (SWMUs) 2, 3, 4, 5, 6, 7, 30, and 145.

Key documents:
- Scoping Document for the Burial Grounds Operable Unit Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky
- Work Plan for the Burial Grounds Operable Unit Remedial Investigation/Feasibility Study at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky, DOE/OR/07-2179

Issues: None

Recent accomplishments:
- Sampling activities have been completed at SWMU 2, SWMU 3, SWMU 5, SWMU 6, SWMU 7, SWMU 30, and SWMU 145
- Completed evaluation of C-404 monitoring well network

Activity over next 60 days:
- Complete well rehabilitation activities for two existing monitoring wells in SWMUs 2 and 3 area
- Sample Data Validation
- Drafting Remedial Investigation (RI) Report

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Waste Disposition

Contact Persons:
U.S. Department of Energy: Rob Seifert
Paducah Remediation Services LLC: Matt LaBarge/Greg Shaia
Commonwealth of Kentucky: Jon Maybriar
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Waste Disposition

Description: DOE is responsible for disposal and/or recycling of legacy wastes (wastes generated at the PGDP prior to establishment of USEC on July 1, 1993); wastes generated from ongoing DOE projects; and a limited amount of waste generated by USEC. After characterization to assure selection of the appropriate disposition method, non-hazardous and non-radioactive wastes are disposed of in the DOE Solid Waste Contained Landfill. *(Please see landfill update sheet.)* Hazardous and radioactive wastes are treated if necessary and shipped off-site to approved DOE or commercial disposal facilities. Wastewater (collected from sumps in diked areas in DOE waste storage facilities at PGDP) is treated and discharged in accordance with the Kentucky Pollutant Discharge Elimination System permit.

Key documents:
- Paducah Waste Acceptance Criteria (BJC/PAD-11, Revision 4)
- Final Environmental Assessment for Proposed Disposition of Waste from the Paducah Site (DOE/EA-1339 and Addendum DOE/EA-1339-A) (FONSI)
- Agreed Order DWM-31434-042
- Site Treatment Plan (STP) DWM-30039-042

Issues:
- None

Recent accomplishments/activities:
- Disposed 6200 cubic feet newly generated waste in C-746-U Landfill
- Disposed 8440 cubic feet legacy waste in C-746-U Landfill
- Continued work planning for MLLW off-site shipments

Activity over next 60 days:
- Prepare MLLW for off-site shipment
- Continue disposition of newly generated waste

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Soils Operable Unit

Contact Persons:
U.S. Department of Energy: David Dollins
Paducah Remediation Services LLC: Tracey Brindley/Craig Jones/Aric Cowne
Commonwealth of Kentucky: Jon Maybriar
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: Judy Clayton

Purpose: Environmental Restoration

Description: The objective of this Soils Operable Unit is to plan and conduct the facility and equipment demolition and removal for the C-218 Firing Range, the C-403 Neutralization Pit, and the C-410-B Sludge Lagoon. The three facilities will be demolished to the slab, if applicable, or to at grade components. Subgrade areas, including but not limited to, basements, depressions, and sumps will have the walls removed and be backfilled seeded as applicable with material suitable to prevent surface water accumulation and erosion. A civil survey will be performed at the four corners of the C-403 and C-410-B areas to aid with the potential need to locate these areas in the future. Finally, waste material generated associated with the demolition of these facilities will be dispositioned at an appropriate receiving facility.

Issues:
- Discovery of contaminated soil piles along Little Bayou Creek; work is ongoing; not officially assigned to Soils OU at this time, however, the Soil Piles Sampling and Analysis Plan and Addenda 1-A was submitted to Kentucky and EPA on February 09, 2007. Comments were received from KDEP on 02/26/07.

Recent accomplishments:
- Obtained regulatory approval of the Removal Notification for Soils OU
- Issued the D2 SAP and Addendum 1-A to the regulators for approval on 04/25/07
- Initiated sampling of soil piles along Little Bayou Creek on 4/13/07

Activity over next 60 days:
- Issuance to the regulators for review the D1 EE/CA for the 3 Inactive Facilities
- Obtain regulatory approval on the Soil Piles SAP and Addendum 1-A
- Issue to the regulators the Addendum 2 within 15 days of receiving regulator approval of 1-A
- Issue to the regulators the Time Critical Removal Notification for Soil and Rubble Areas

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Potential On-Site Waste Disposal Facility

Contact Persons:
U.S. Department of Energy: Jeff Snook
Paducah Remediation Services LLC: Tracey Brindley/Craig Jones/Dave Guyan
Commonwealth of Kentucky: Jon Maybriar
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board:

Purpose: Waste Disposition

Description: Evaluate the feasibility of designing, constructing, and operating an on-site disposal cell for remediation generated contaminated/hazardous waste.
Conduct a Facility Assessment that includes a screening site study, waste generation volume/type assessment, preliminary waste acceptance criteria development, life cycle cost analysis, and conceptual design. Prepare necessary CERCLA documents for approval by the Regulators that includes and RI/FS Report, Proposed Plan and Record of Decision

Key documents:

- Technical Memorandum for siting a Potential Waste Disposal Facility at the Paducah Gaseous Diffusion Plant (PRS-ENM-0029)
- Conceptual Design Plan for a Potential Waste Disposal Facility at the Paducah Gaseous Diffusion Plant (PRS-ENM-0032)

Issues: None

Recent accomplishments:

- Completed waste volume assessment for PGDP environmental restoration and D&D activities
- Technical Memorandum for siting a potential on-site waste disposal facility at the Paducah Gaseous Diffusion Plant undergoing internal review
- Conceptual Design Plan undergoing internal review
- Began development of Preliminary Waste Acceptance Criteria
- Began preparation of Life Cycle Cost Analysis
- Began preparation of the RI/FS

Activity over next 60 days:

- Issue Technical Memorandum
- Issue Conceptual Design Plan
- Continue development of the Preliminary Waste Acceptance Criteria
- Continue preparation of Life Cycle Cost Analysis
- Continue preparation of RI/FS

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Depleted Uranium Hexafluoride (DUF_6) Project Surveillance & Maintenance & DUF_6 Operations Readiness

Contact Persons:
U.S. Department of Energy: John Sheppard
Uranium Disposition Services: Barry Tilden
Commonwealth of Kentucky:
U.S. Environmental Protection Agency:
Citizens Advisory Board:

Purpose: Maintain safe storage of DOE DUF_6 cylinder inventory pending disposition. Prepare the operations staff to operate the DUF_6 facility once construction is complete.

Description: The Atomic Energy Act, as amended, gives DOE responsibility for the DUF_6 inventory, which is a by-product from enriching uranium for nuclear fuel. At Paducah, approximately 36,700 cylinders contain approximately 440,775 metric tons of DUF_6. There are also 182 cylinders of low-enriched UF_6, about 669 cylinders of "normal" UF_6 (which has not gone through the enrichment process), and 276 empty cylinders. The DOE inventory at Paducah includes the material generated from 1952 until the establishment of USEC in July 1993, and material transferred from USEC to DOE since that time. Surveillance and maintenance involves safely storing DUF_6. Most of the 60-acre DOE cylinder yard complex now consists of concrete yards, which provide for improved storage and inspection.

Prior to beginning operations for the DUF_6 conversion facility, DOE requires a comprehensive process to demonstrate that the operating staff is trained and qualified and that the plant equipment is ready for operation with hazardous materials. Preparations also include documenting the safety basis for the plant in a Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) document.

Key Documents for DUF6 Operations:
- Handling and Inspection of DOE 48-Inch Diameter UF_6 Cylinders at Paducah (UDS-C-CYP-2400)
- Agreed Order DWM-31434-030
- Final Environmental Impact Statement for the Construction and Operation of the DUF_6 Conversion Facility at the Paducah Site (DOE/EIS-0359)
- Record of Decision for Construction and Operation of the DUF_6 Conversion Facility
- Documented Safety Analysis for the DOE Cylinder Yards, DUF6-C-G-DSA-002
- Technical Safety Requirements for the DOE Cylinder Yards, UDS-C-TSR-001

Recent accomplishments/activities:
- As of the end of May, UDS has completed 90% of the annual cylinder inspections, 83% of the quadrennial cylinder inspections and 85% of the radiological surveys required for the fiscal year that ends September 30, 2007
- During May, 179 cylinders were re-located from the C-745-C cylinder storage yard (inside the limited security area of the site) to the Property Protection Area adjacent to the DUF_6 Conversion Facility construction site. 500 cylinders remained in the C-745-C yard as of the end of May.
- On May 31, UDS submitted the draft DSA and TSRs for the Portsmouth DUF_6 conversion facility to DOE for review. The Paducah DSA/TSR will be very similar and is scheduled for submittal later this summer.

Activity over next 60 days for surveillance/maintenance:

- Continue moving cylinders from C-745-C cylinder storage yard in the northwest portion of the site to the DOE cylinder storage yards located near the conversion facility.
- Continue annual and quadrennial inspections and radiological surveys of cylinders.
- Continue to add DUF_6 operations and engineering staff in order to develop DUF_6 facility operating procedures and training modules and to formulate the test plans for accepting DUF_6 facility equipment.

Project Status Update for DOE Paducah Citizens Advisory Board
June 21, 2007
Project: Depleted Uranium Hexafluoride (DUF_6) Conversion Facility

Contact Persons:
DOE Site Office: John Sheppard
Uranium Disposition Services: Guy Griswold
Commonwealth of Kentucky:
U.S. Environmental Protection Agency:
Citizens Advisory Board:

Purpose: Design, build, and operate the DOE DUF_6 Conversion Facility.

Description: The Atomic Energy Act, as amended, gives DOE responsibility for the DUF_6 inventory, which is a by-product from enriching uranium for nuclear fuel. At Paducah, approximately 36,200 cylinders contain approximately 436,400 metric tons of DUF_6. DOE selected Uranium Disposition Services LLC to design, build, and operate facilities in Paducah and Portsmouth to convert DUF_6 to a more stable form for disposal or recycling.

The project site occupies approximately 11 acres immediately adjacent to DOE's DUF_6 cylinder storage yards. The completed capital costs for the facility at Paducah are estimated to be ≈ $91,000,000. The major facilities on the DUF_6 project include the Conversion Building, Administration Building, Warehouse and Maintenance Building, KOH Regeneration Building, and the HF Neutralization Building. The project work also includes a railroad connection, rail sidings, load out facilities, roads, storage areas for full and empty cylinders, and all utilities.

Groundbreaking occurred in July 2004 and construction has continued since that time. At the conclusion of construction, all systems will be tested and the plant will undergo an Operational Readiness Review. The facility construction is to be complete in 2007. Following Readiness Reviews, facility operations are scheduled to commence in 2008.

Key Documents for the Conversion Project:
- Final Environmental Impact Statement for the Construction and Operation of the DUF_6 Conversion Facility at the Paducah Site (DOE/EIS-0359)
- Record of Decision for Construction and Operation of the DUF_6 Conversion Facility
- Paducah Conversion Facility Preliminary Documented Safety Analysis, DUF6-C-G-PSA-001, Rev. 0

Recent accomplishments/activities:
- Warehouse Building – 100% complete.
- Administration Building – 100% complete – Installing of system furniture has begun and plans have been developed to accommodate Information Technology requirements for computer systems.
- Conversion Building - Completed all elevated concrete roof slabs (39,500 square feet) and 25,000 square feet elevated floor slabs. Completed installing structural steel members to lift oxide hoppers into place. Steel for monorails at various locations installed in building Roof membrane 63% complete.
- BOP Foundations – Bulk of foundations complete, entire project 96% complete. Forms and structural steel for the Nitrogen pad foundation are being placed.
- KOH Building – All structural steel erected, roof installed, and metal siding being placed. Mechanical equipment placed inside structure prior to the siding being installed.

- Mechanical Piping & Equipment –Continued setting mechanical equipment in the conversion building mechanical equipment room and installing pipe. Installing equipment and piping to cooling tower. Placed all 10 autoclaves in conversion building. Placed equipment in scrubber room, and delivered equipment to the powder transfer and condenser rooms.
- HVAC – Subcontractor has fabricated and delivered HVAC duct sections. Subcontractor has installed duct hangers and duct throughout the Conversion Building.
- Electrical –Electrical grid installed in the electrical room and 42% of all cable tray installed throughout project. Electrical switchgear and components delivered and initially positioned in the electrical room. Exterior duct banks and added electrical manhole set. Electrical equipment and material deliveries continue.
- Power to Facilities – Power cable to facility is 100% complete.
- Continue receiving equipment at site. Received deliveries for 198 packages (approximately 83% of BOP equipment and approximately 62% of process equipment received)

Construction activity scheduled over next 60 days:

- Connect UDS 15kV cables to power circuits in USEC switchyard
- Place concrete slab for Nitrogen Pad and exterior equipment pads
- Turn Potable water on for DUF_6 Site
- Sign amended Interface Control Document for connection to USEC utilities to add electric metering and fire protection signal connection
- Install all eight (8) conversion unit shells.
- Continue to anchor exterior electrical components to permanent pad locations
- Place interior electrical components in electrical room, connect buss bars to transformers and install ceiling grid
- Complete erecting the KOH Building
- Fabricate, deliver and install Conversion Building metal stairs
- Mobilize subcontractor awarded S-32 Architectural Finishes contract
- Set both Oxide Hoppers
- Complete East side French drains and area gravel fill
- Mobilize subcontractor for S-48 Conversion Building Service Elevator Subcontracts
- Mobilize fire protection and begin construction

Procurement activity planned next 60 days:

- Mobilize Subcontractor on Architectural Finishes – S-32
- Mobilize Subcontractor on onsite rail subcontract – S-34
- Award S-35 Site Final Grading, Landscaping, Paving and Fencing Subcontract
- Mobilize subcontract for insulation for piping and equipment – S-36
- Award interior sealant painting for the Conversion Building S-38 and general facility painting S-37
- Bid and award work to install electric metering.
- Bid and award work to install new hydrogen line – S-52
- Bid the S-47 Airtight Double Doors
- Continue to Bid and Procure Major Equipment

Project Notes:

- Paducah project schedule affected by Conversion Building seismic issues/design
- The revised process for generating hydrogen will require us to provide a natural gas supply