



PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

111 Memorial Drive • Paducah, Kentucky 42001 • (270) 554-3004 • PaducahCAB@bellsouth.net • www.pgdpcab.org

Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes September 15, 2005

The Citizens Advisory Board (CAB) met at the CAB office in Paducah, Kentucky September 15, 2005, at 6 p.m.

Board members present: John Anderson, Chad Kerley, Shirley Lanier, Linda Long, Janet Miller, John Russell, and Jim Smart

Board members absent: Allen Burnett, Barry Eadens, Bobby Lee and Rhonda McCorry

***Ex Officio* members and related regulatory agency employees present:** Mike Guffey, Kentucky Division of Waste Management; David Williams, Environmental Protection Agency; Doug Dawson, Kentucky Department Fish and Wildlife Resources

Deputy Designated Federal Official present: Rachel Blumenfeld

DOE-related employees present: Jeannie Brandstetter, Kim Crenshaw, Jim Ethridge, Greg Felts, Bruce Gardner, Bob Giroir, Guy Griswold, Bruce Phillips, Steve Kay, Reinhard Kuerr, Tom Stanberry, Joe Tarantino, and Elizabeth Trawick

Five members of the public attended the meeting.

Agenda

Kay asked for proposed modifications to the agenda. There were none. **The Board adopted the agenda by consensus.**

Minutes

Kay asked for proposed modifications to the draft August minutes. There were none. **The Board approved the minutes as submitted by consensus.**

Election of Chair and Chair-Elect

Kerley reported McCorry and Smart were nominated for Chair-Elect but Smart declined the nomination. Kay asked if there were any other nominations by the Board. Kay asked if there were any objections to electing McCorry as Chair-Elect by acclamation. There were no objections.

Deputy Designated Federal Official's Comments

Progress of the Paducah Project

Blumenfeld reported August progress:

- The C-400 Source Removal Record of Decision (ROD) was signed on August 9. C-400 Remedial Action bids were received by Bechtel Jacobs Company LLC (BJC) on August 31. Contract award is scheduled for November 15, 2005.
- A recertification from the Nevada Test Site was received on July 15, allowing scrap metal shipments to start the week of July 25, with 7-8 shipments weekly, totaling 855 tons through August. Over 3,800 tons of D-yard scrap has been downsized and about 40 percent of an estimated 10,000 tons has been removed to date. Completion is anticipated in early 2006. The final shipment of scrap metal turnings was made on August 19.
- In Legacy Waste disposition, 3,861 ft³ of Agreed Order waste and 5,400 ft³ of crushed drums was disposed in the C-746-U Landfill and 414 ft³ of Agreed Order waste was shipped to Envirocare. 10,853 ft³ of uranium tetrafluoride (UF₄) was shipped to Duratek pending processing for disposal at Envirocare.
- Shipments of UF₄ drums are 48 percent complete. Processing continues at Duratek to confirm contents are acceptable for disposal at Envirocare. Final shipment to Duratek is scheduled for completion by the end of fiscal year 2005.
- In outdoor low-level waste, documentation packages are being prepared to ship 1,950 ft³ of floor sweep to Envirocare. Data is being reviewed to determine the best disposal method for 16,650 ft³ of soils and debris. To date 5,400 ft³ of empty drums and debris have been disposed.

- At the C-410 Decontamination and Decommissioning complex, treatment of the second batch of 3,000 gallons of rainwater from roof leaks has been completed. Removal of fluorine cell stands and platforms in Sector 2 is continuing. Four fluorine cells were moved from the waste storage facility to begin blasting when solidified electrolyte was found on the surface, work was paused and evaluation for removal of the solidified electrolytes began. The contractor has begun mobilization on the nitrogen facility to remove pipes, valves and other small equipment; completion is scheduled for October 2005. The Engineering Evaluation/Cost Analysis (EE/CA) for the Limehouse, Contaminated Item Incinerator, and West End Smelter was issued for public comment through October 31, 2005. Fieldwork on the Lime House is scheduled to begin January 2006.
- 1,286 of 2,375 screening samples and 336 of 347 lab samples were collected through August 26 for the Surface Water Operable Unit (SWOU). Sampling of soils and sediments of the North-South Diversion Ditch (NSDD) Sections 3, 4 and 5, outfalls and internal ditches, and storm sewer discharge water is scheduled to be completed in October. The Site Investigation/Baseline Risk Assessment will be submitted to the regulators during the Summer of 2006.
- 16 out of 17 Outside DOE Material Storage Areas (DMSA) are now empty. 644,000 of 860,000 ft³ of DMSA material has been characterized. 278,000 ft³ has been packaged and 257,000 ft³ has been shipped.
- Field work began the week of July 18 on the maintenance and warehouse building foundation at the Depleted Uranium Hexafluoride conversion facility site. The warehouse building contract is expected to be complete by February 2006. The facility 90% design work was completed in March and is undergoing DOE review and approval.
- 208 tons of waste were disposed at the C-746-U Landfill in August. On July 6, Kentucky withdrew permit modifications for the S, T, and U landfills, including the leachate facility, due to internal procedural issues. The permit was reissued for public comment on July 11 and comment period ended on August 10. Reissuance of the permit modification is expected following completion of the comment period. Completion of the leachate treatment facility is now anticipated in December 2005.
- Discussions were held in July to resolve Kentucky and EPA comments on the D1 Southwest Plume Site Investigation (SI). The Federal Facilities Agreement was submitted to the regulators to realign milestones, including a modification of the milestone for the D2 SI Report to be submitted by October 7, 2005. The D1 C-746-S&T Landfill Site Evaluation Report will be submitted by the September 30 milestone.
- On June 30, the Burial Grounds Operable Unit (BGOU) Remedial Investigation/Feasibility Work Plan was submitted to regulators; comments are anticipated by September 30.

- The Source Evaluation Board (SEB) released the amended Request for Proposal (RFP) on June 20, 2005 for the remediation contract. Offerers within the competitive range had until August 4, 2005 to submit responses to the revised RFP. Offers received by the deadline will be evaluated by the SEB. DOE has extended the BJC contract through January 29, 2006.

Comments

Miller asked if the lining for the gondola cars used for transporting the scrap metal would become waste. Blumenfeld said the containers are placed “as is” in Envirocare, the waste disposal facility.

Miller asked if the best disposal method for the outdoor legacy low-level waste is determined by regulatory review. Blumenfeld said no, it is a project management decision.

Smart asked how many samples exceeded the limits on the SWOU project. Williams said there were 16 exceedences for polychlorinated biphenyl (PCB) and out of 2,147 total samples, 106 exceeded indicator levels.

Russell said the data that was presented at the July meeting within the Burial Grounds presentation included some data from the Southwest Plume and the C-746-S&T Landfills. He said the Waste Disposition Task Force requested the data from these projects separate from the other 10 years of data in a three dimensional presentation. He said he was informed this would cost \$6,000. Russell said this information was part of a database used to produce the other models. He asked why it would cost \$6,000 to pull out a portion of the information. Blumenfeld said the cost may be putting together an entirely different model possibly by another contractor. Russell said the data from those studies must have been presented separately in the past and asked if it be possible to see it. Williams said there were no graphical presentations on the Southwest Plume or the S&T Landfill. He said those documents were started a year before the burial grounds scoping meetings began. Russell said the CAB has not seen the data from those investigations as they relate to the questions of the Southwest Plume and S&T studies. Blumenfeld said the S&T Site Evaluation would answer some of these questions when it is available. She suggested Russell contact Dollins to obtain some of this information.

Russell asked if the scrap metal graphics slide could be added back into the presentation since the shipments have resumed. Blumenfeld said the slide would be added to the presentation when the revised schedule has been formalized.

Kerley asked if the CAB could be added to the regulator’s distribution lists for the correspondence to DOE relating to document comments and milestone dates. He said other CABs are receiving this information from their state and EPA. Williams said EPA would not want to “circumvent DOE.” Blumenfeld said pre-decisional phase documents could not be shared but general correspondence could be accessed under the Freedom of Information Act (FOIA). She suggested contacting Dollins on exactly what the CAB would like to receive.

Williams said document schedules, comments and extensions should be shared with the Board. He said the documents should include a comment response summary.

Ex-Officio Comments

Guffey said the Commonwealth of Kentucky is pleased to have the C-400 ROD signed and the progress on the inactive facilities is very encouraging. He said another closure plan for DMSAs is near and the site treatment plan is forthcoming. He said a tentative hearing may be scheduled if there is interest on holding hearings for the DMSA closures and the site treatment plan.

Williams said EPA obtained samples on the Northwest Plume and on the Northeast Plume at six feet to see whether or not there has been vaporization of the TCE into the soil. He said the results will be available in a couple of weeks.

Public Comments

Ruby English, citizen and Active Citizens for Truth (ACT) Chair, proposed that DOE and the CAB hold a public meeting to explain institutional controls on what has been implemented and what to expect, such as zoning and deeds on the plume areas. Blumenfeld said the only institutional controls that have been looked at is for DOE property. English said the DOE maps show institutional controls to areas down to the river. Williams said the Water Policy is considered an institutional control. Kay suggested adding this to the Long Range Task Force agenda.

Jurka said she could not tell the depth of the contamination in the presentation that Russell provided in August. She said several people are using wells where the Southwest Plume may be forming at less than 60 feet in depth. She said she was surprised there was no recommendation to follow the presentation. Jurka said that during drought conditions an individual showed her where water was pooling on the surface that had a tar-like substance with no sewage smell. She said she is concerned about the wetlands around the plant having contaminants. She said she does not have any geological data to determine where the level of the Regional Ground Aquifer (RGA) is in that environment. Russell said the presentation indicated ground levels down to the RGA. About 60 percent of that area is wetlands and if we had the definition of wetlands that we have today, some of the burial grounds would be wetlands but he is puzzled by the material that was coming to the surface. Jurka said the state tested the number of people still using wells and several were west of the plant. If contamination is reaching the RGA, there is potential for migration of these contaminants from the landfills into private drinking wells. Russell said the BGOU Workplan was to identify gaps in the information that existed to see if further investigation was required and he believes DOE conducted a thorough job looking at the data. He said the Southwest Plume does not extend beyond the plant boundary so it would be shocking to him if the privately owned wells showed contamination because there is no known plume extending in that direction. Long said there are springs in that vicinity. She said there is a spot on her property that is damp in dry weather. She said Dollins has assured her that someone would check to see if there was a spring coming from the groundwater in that area. Russell said this part of

Kentucky does have impermeable clay layers that do not allow vertical movement of water and forces horizontal movement. Some of the surface water will not get to the RGA and may come to the surface as a spring.

Task Forces/Presentations

Water Quality Task Force

Smart said the task force is sending a letter to Larry Sowder, state permit writer, to support the expedited issuance of the Kentucky Pollutant Discharge Elimination System permit, the state permit that sets limits on contaminant levels in discharge waters to outfalls around the plant. He said the draft letter is provided in the Board packet. The Board had no objections to sending the letter to Sowder. Smart said the task force received updates on the Southwest Plume and the SWOU projects. Miller asked if the Water task force could get the sampling results from the SWOU where the exceedences occurred. Smart said he would request the information for the next task force meeting. Williams said most of the exceedences were between the plant boundary and Ogden Landing Road.

Long-Range Strategy/Stewardship

Kerley said the site tour has been scheduled for October 22 and all Board members should notify the staff if they plan to attend.

Kerley said DOE would be conducting a public meeting on October 18 at 6:30 at the Environmental Information Center to discuss the 2005 End State Vision Annual Update with stakeholders.

Community Outreach

Kerley said Barry Eadens would provide the speaker's bureau presentation to producers at Channel 6 on October 7. He said Channel 6 has been invited to participate in the site tour for background/informational purposes, not for a news story.

Kerley said the Community Outreach task force requested that a member of DOE participate in their meetings. Blumenfeld requested that Eadens contact her to discuss the issue.

Administrative Issues

Review of October Agenda

Kerley requested adding the C-746-S&T Landfill presentation to the October agenda.

Action Items

There were no changes to the action items.

Subcommittee Report

Executive Committee

Kerley said the final Chairs Meeting templates that were submitted to DOE Headquarters are provided in the packet. He said McCorry, Lanier, Russell and Brandstetter would be representing the CAB in Idaho Falls. He said Burnett is in Mississippi working on Hurricane Katrina cleanup and is unable to attend the chairs meeting as previously planned.

Kerley said Executive Committee is postponed to September 27 due to chairs meeting travel.

The meeting adjourned at 8:45 p.m.

Progress at the PADUCAH PROJECT

Update to the Citizens Advisory Board

September 15, 2005

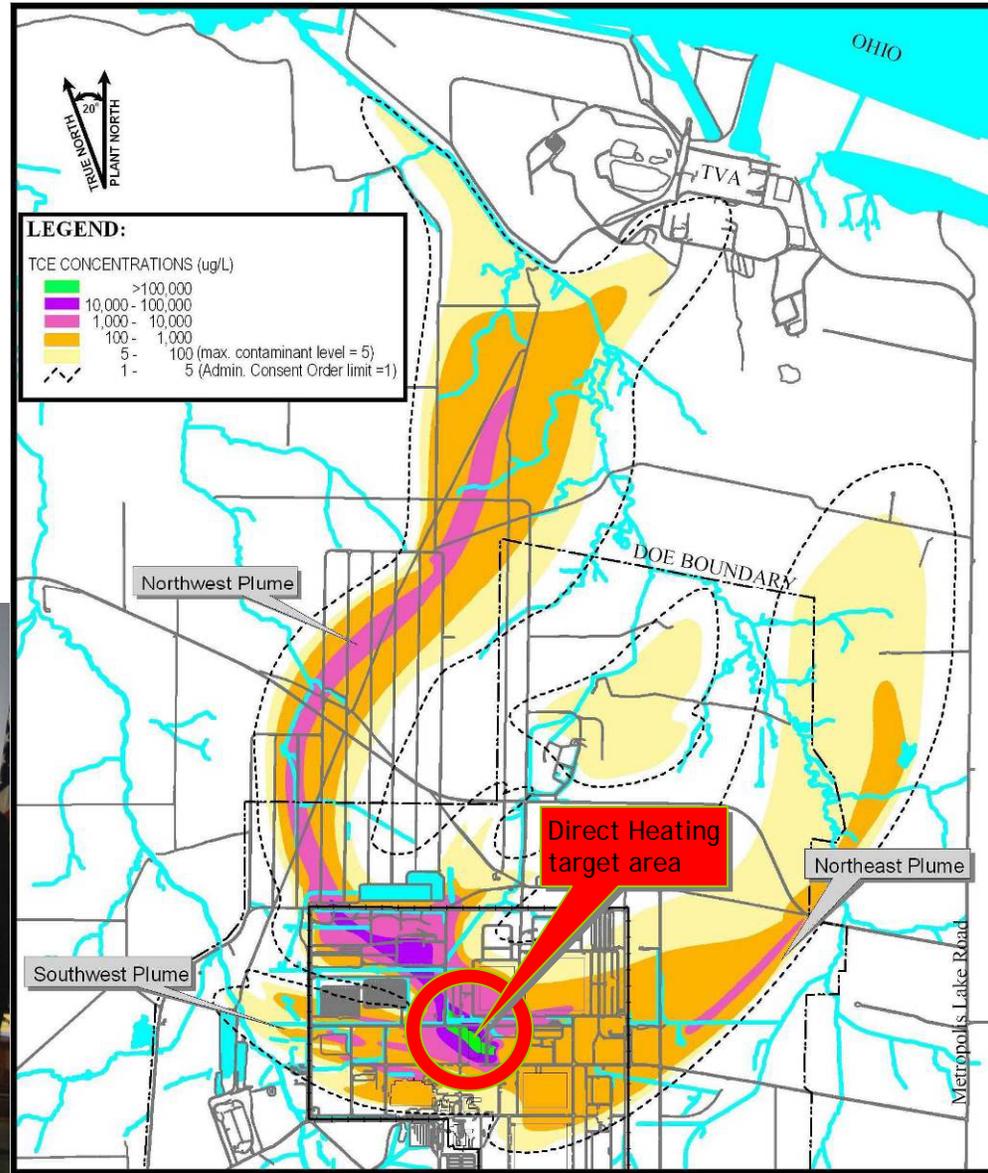


Rachel Blumenfeld
U.S. Department of Energy
Chief Operating Officer
Portsmouth/Paducah Project Office



Groundwater Remediation

- The C-400 ROD was signed August 9, 2005
- C-400 Remedial Action bids were received by BJC on August 31
- Contract award scheduled for November 15, 2005



Bill Murphie, DOE
Bruce Scott, KDWM
Ken LaPierre, EPA



Scrap Metal Removal

- NTS recertification received July 15; shipments from D-yard began week of July 25, with 7-8 shipments weekly, totaling 855 tons through August
- Over 3,800 tons of D-Yard scrap downsized; about 40 percent of an estimated 10,000 tons has been removed to date; anticipate completion early 2006



NTS shipment from D yard



Turnings pile before



Turnings pile after

- Final shipment of scrap metal turnings made August 19, 2005
- Original turnings estimated weight ~300 tons; actual weight 257 tons



Scrap Metal Container Shipments

- 161 of 222 SeaLand containers of scrap metal shipped to Envirocare through August
- Shipment of SeaLands in gondola cars completed September 15, 2005



Lining a gondola car prior to loading SeaLand containers



Loading SeaLand containers into gondola rail cars

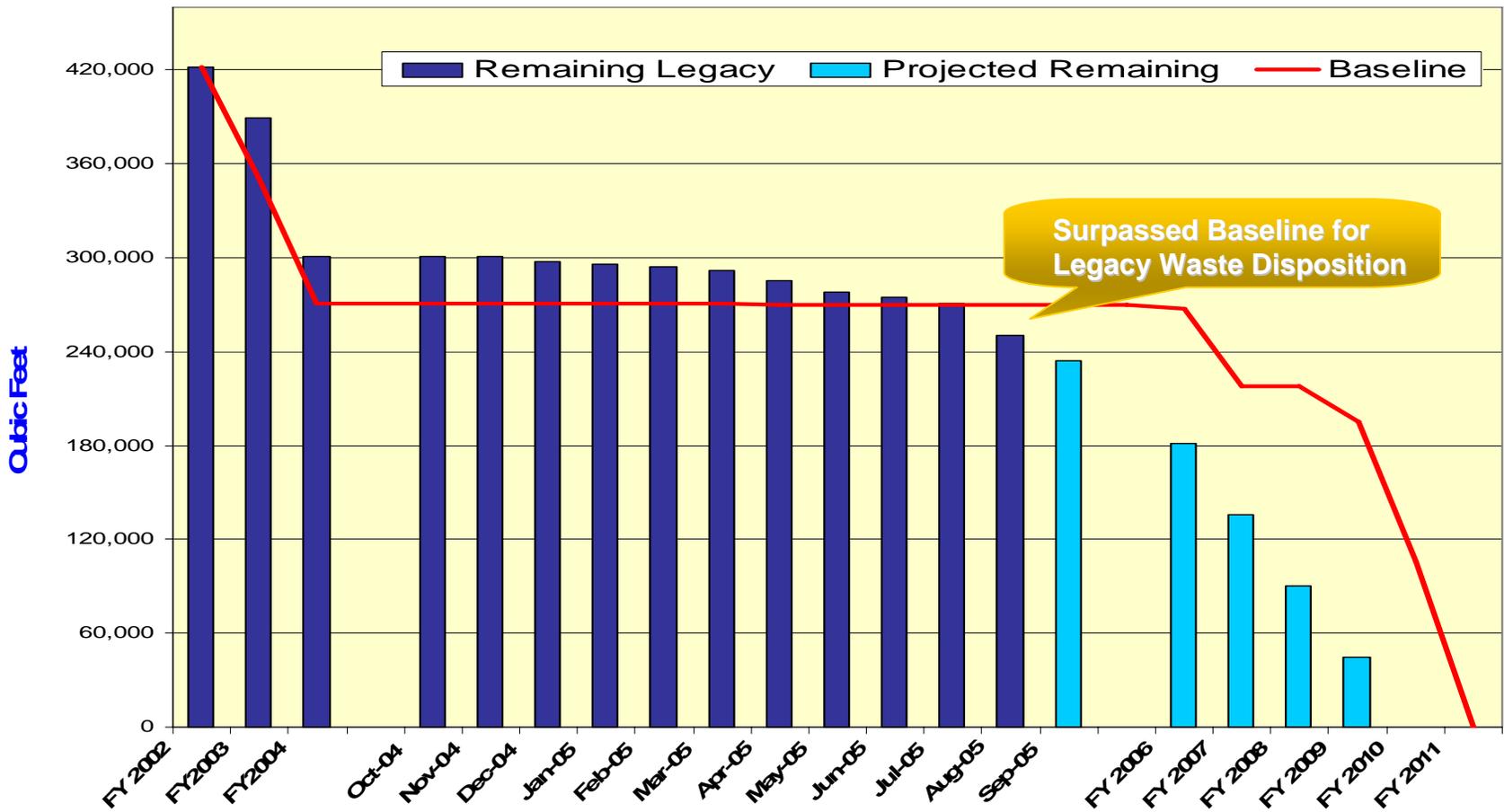


Scrap metal gondola cars in transit to Envirocare



Legacy Waste Disposition

- Disposed of 3,861 cubic feet Agreed Order waste in C-746-U Landfill
- Disposed 5,400 cubic feet of crushed drums in C-746-U Landfill
- Shipped 414 cubic feet of Agreed Order waste to Envirocare
- Shipped 10,853 cubic feet of UF4 to Duratek pending processing for disposal at Envirocare





Expedited Cleanup Projects

UF4 Drums



UF4 Drums
FY 2007 to FY 2005

- Multiple shipments continue since week of July 25, 2005
- Now 48% complete (975 of 1900 drums shipped through August)

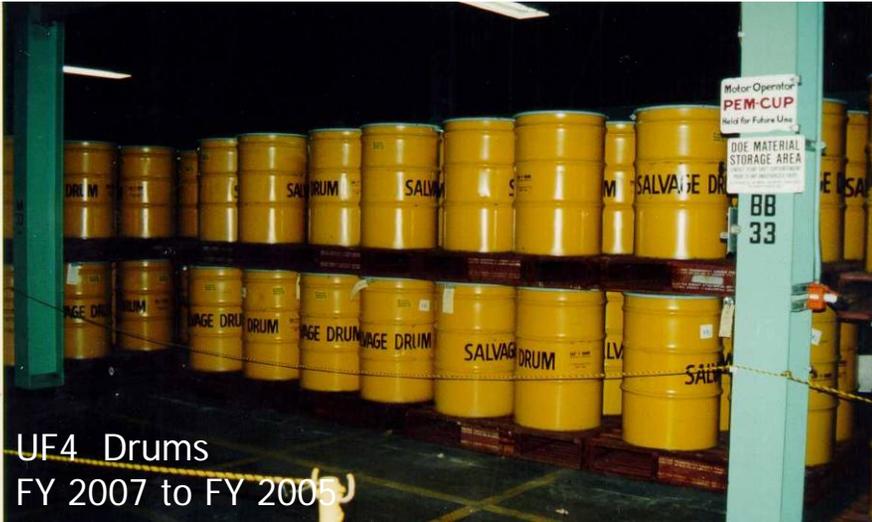
*DMSA 331-17
now empty*





Expedited Cleanup Projects

UF4 Drums



UF4 Drums
FY 2007 to FY 2005

- Processing continues at Duratek to confirm contents are acceptable for disposal at Envirocare

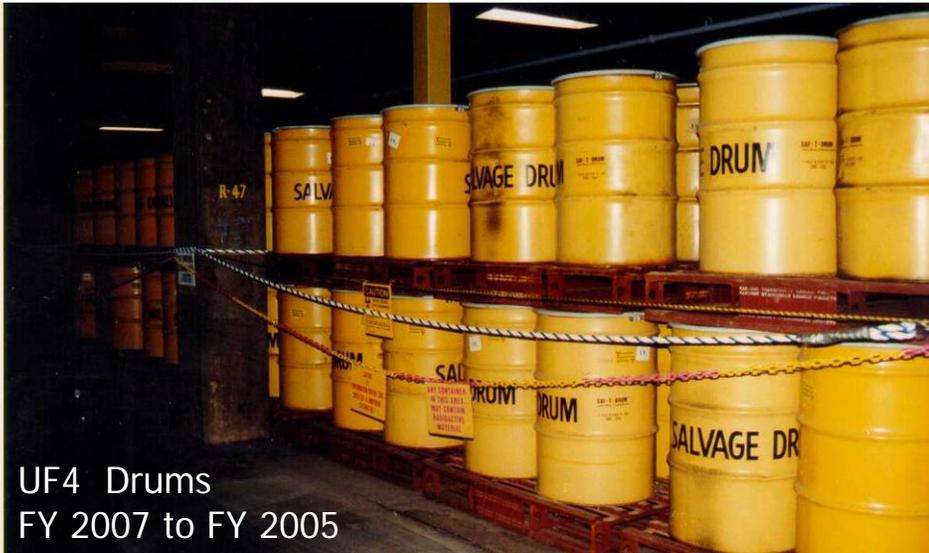
*DMSA 331-18
now empty*





Expedited Cleanup Projects

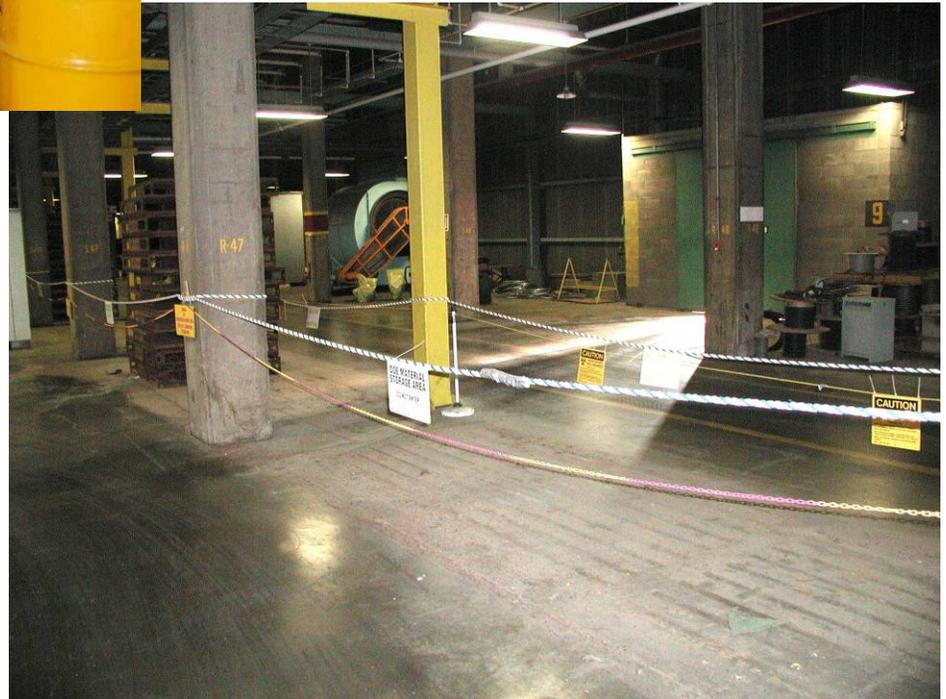
UF4 Drums



UF4 Drums
FY 2007 to FY 2005

- Final shipment to Duratek on track for completion by end of FY 2005 (September 2005)
- Final shipment from Duratek to Envirocare planned for November 2005

*DMSA 337-26
now empty*





Expedited Cleanup Projects

Outdoor Legacy LLW

- Preparing documentation packages to ship 1,950 cubic feet (ft³) of floor sweep to Envirocare
- Reviewing data to determine best disposal method for 16,650 ft³ of soils and debris
- Work started in June (2 ½ yrs earlier than baselined) and is scheduled for completion by Dec. 31, 2005 (about 3 years early)
- To date 5,400 ft³ of empty drums and debris have been disposed



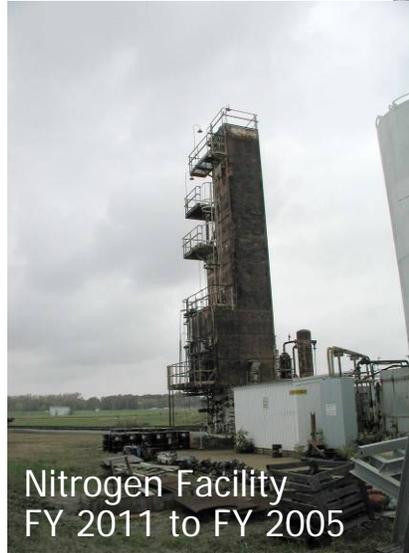
Outdoor Legacy Waste
FY 2009 to FY 2006



Inactive Facilities D&D

Nitrogen Facility

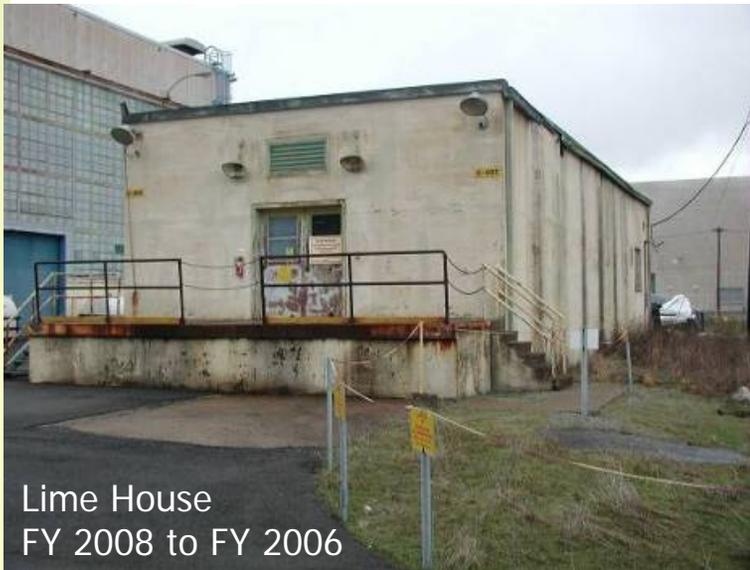
- Awarded subcontract and contractor mobilized; removing pipes, valves and other small equipment
- Scheduled for completion by October 2005



Nitrogen Facility
FY 2011 to FY 2005



Contractor staging
area for C-603



Lime House
FY 2008 to FY 2006

Lime House, Contaminated Item Incinerator, and West End Smelter

- D2 EE/CA issued for public comment September 15, 2005; comment period through October 31; document website: www.bechteljacobs.com/pad_reports.shtml
- Collecting samples to characterize Lime House
- Fieldwork on Lime House to begin January 2006



C-410 D&D

- Completed lighting, HVAC, and equipment installation, and installation of two of three Personnel Contamination Monitors
- Continued removal of fluorine cell stands and platforms from Sector 2
- Moved four fluorine cells from waste storage facility to begin blasting, found solidified electrolyte on the surface, paused work and began evaluation for removal of solidified electrolyte
- Completed treatment of 2nd 3,000 gallon batch of rainwater from roof leaks
- Completed electrical isolation on Zone 64, C-411 in preparation for demolition



"Air-gapped" transformer in C-411



Surface Water Operable Unit

- 2,286 of 2,375 screening samples and 336 of 347 lab samples were collected through August 26, 2005
- Sampling of soils and sediments of NSDD Sections 3, 4 and 5, outfalls and internal ditches, and storm sewer discharge water to be completed in October
- Site Investigation/Baseline Risk Assessment will be submitted to the regulators during the summer of 2006



SWOU sampling



DMSAs

- Eleven coolers from DMSA OS-15 have been shipped for disposal; four coolers and one booster remaining
- 16 of 17 Outside DMSAs now emptied

August

Project Life

- | | | |
|-----------------|------------------|-------------------------------|
| • Characterized | 2,500 cubic feet | 644,000 of 860,000 cubic feet |
| • Packaged | 7,300 cubic feet | 278,000 cubic feet |
| • Shipped | 5,700 cubic feet | 257,00 cubic feet |

DMSA OS-14 rail car lift



DMSA OS-14 rail car loading on truck



DUF₆ Conversion Project

- Maintenance and Warehouse Building foundation field work began week of July 18, 2005; foundation slabs were poured in August and September
- Expect Warehouse completion February 2006
- Six construction subcontracts awarded
- Facility 90% design work completed in March 2005 and undergoing DOE review and approval

Foundation work underway for
Maintenance and Warehouse Building





C-746-U Landfill

- Disposed of 208 tons of waste in August
- Kentucky withdrew permit modification for S, T and U landfills (including the leachate treatment facility) on July 6
- Permit was reissued for public comment July 11; comment period ended August 10 and reissuance is anticipated
- Leachate treatment building ready for shipment to PGDP
- Treatment system equipment undergoing final modifications
- Anticipating completion of leachate treatment facility in December 2005



Leachate treatment system equipment being tested at vendor's facility prior to final modifications



Groundwater Operable Unit

Southwest Plume

- FFA modification submitted to regulators to realign milestones due to extensions for document review, including a modification of the milestone for the D2 Site Investigation Report to October 7, 2005
- Discussions held in July to resolve Kentucky and EPA comments on D1 Site Investigation Report
- Follow up discussions with Kentucky and EPA occurred in August

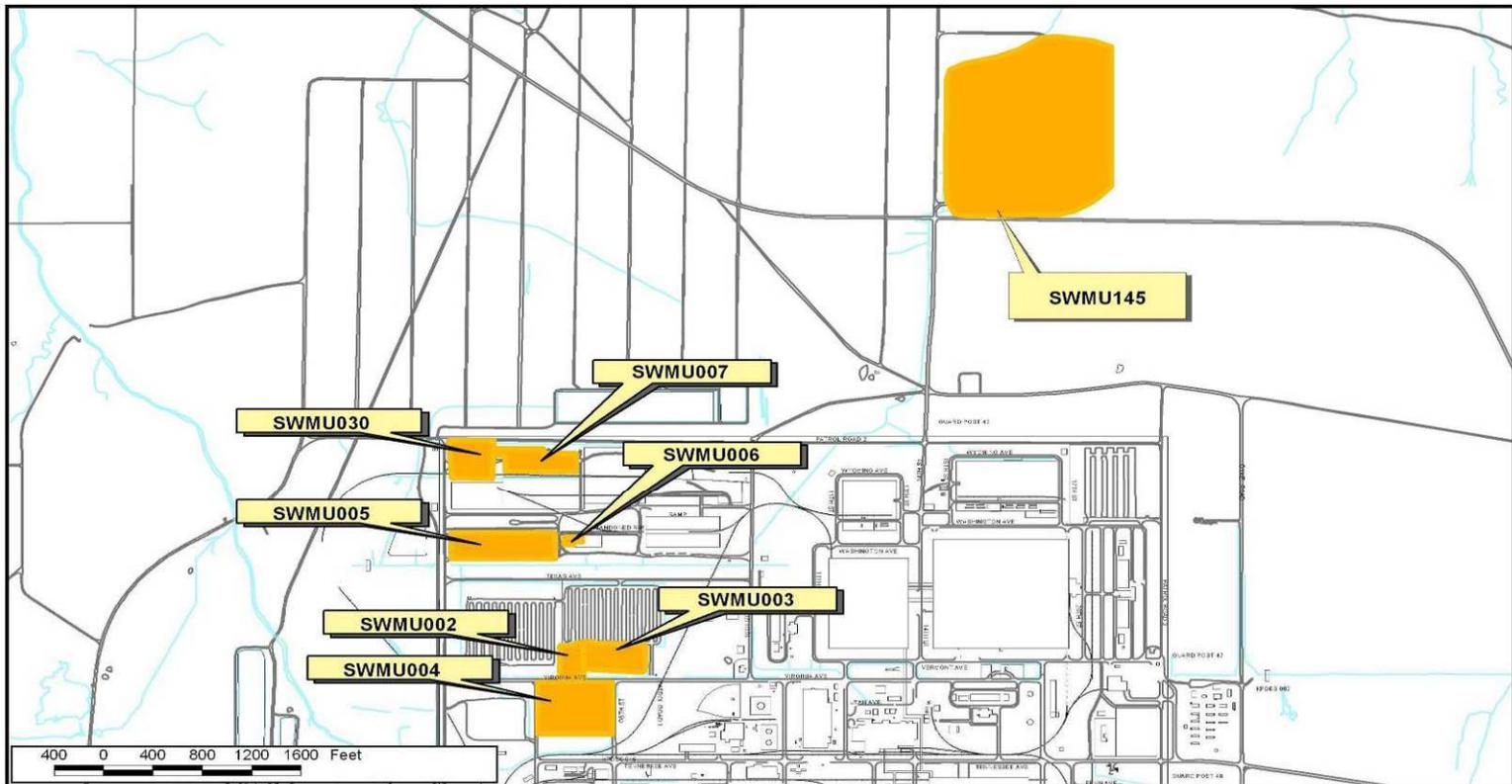
S & T Landfill

- D1 Site Evaluation Report will be submitted by the September 30 milestone



Burial Grounds Operable Unit

- DOE submitted D1 RI/FS Work Plan to regulators, meeting June 30, 2005 milestone
- EPA and Kentucky Work Plan comments anticipated by September 30



LEGEND

 Burial Grounds

U.S. DEPARTMENT OF ENERGY
DOE OAK RIDGE OPERATIONS,
PADUCAH GASEOUS DIFFUSION PLANT

BECHTEL BECHTEL JACOBS COMPANY LLC
The agent for the U.S. DEPARTMENT OF ENERGY under
U.S. GOVERNMENT CONTRACT EEC-A-45-94-9027-00C
Oak Ridge, Tennessee • Paducah, Kentucky • Portsmouth, Ohio

 TETRA TECH, INC.
800 Oak Ridge Turnpike, A-600 • Oak Ridge, Tennessee 37830
(423) 483-9900 • FAX: (423) 483-2014 • www.tetrattech.com

FIGURE No. c5ac90000sk356.apr
DATE 10-19-04



Remediation Contract

- The Source Evaluation Board (SEB) released the amended Request for Proposals on June 20, 2005. Offerors within the competitive range had until August 4, 2005 to submit responses to the revised RFP
- Offers received by the deadline will be evaluated by the SEB
- DOE has extended the Bechtel Jacobs contract through January 29, 2006.



**Project Status Update for Paducah DOE Citizens Advisory Board
September 8, 2005**

Project: Depleted Uranium Hexafluoride (DUF₆) Project Surveillance & Maintenance

Contact Persons:

DOE Site Office: John Sheppard
Uranium Disposition Services: Dick Veazey
Commonwealth of Kentucky:
U.S. Environmental Protection Agency:
Citizens Advisory Board:

Purpose: Maintain safe storage of DOE DUF₆ cylinder inventory pending disposition.

Description: The Atomic Energy Act, as amended, gives DOE responsibility for the DUF₆ 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 DUF₆. There are also 182 cylinders of low-enriched UF₆, about 1,500 cylinders of "normal" UF₆ (which has not gone through the enrichment process), and 275 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 DUF₆. Most of the 60-acre DOE cylinder yard complex now consists of concrete yards, which provide for improved storage and inspection. In recent years, DOE cleaned and painted 3,368 cylinders which had surface corrosion. DOE continually monitors and inspects its cylinder inventory to assure safe storage.

Key Documents for surveillance/maintenance:

- Handling and Inspection of DOE 48-Inch Diameter UF₆ Cylinders at Paducah (PA-2400)
- Agreed Order DWM-31434-030
- Final Environmental Impact Statement for the Construction and Operation of the DUF₆ Conversion Facility at the Paducah Site (DOE/EIS-0359)
- Record of Decision for Construction and Operation of the DUF₆ Conversion Facility
- Documented Safety Analysis for the DOE Cylinder Yards, BJC/PAD-459
- Technical Safety Requirements for the DOE Cylinder Yards, BJC/PAD-461

Issues: None

Recent accomplishments/activities:

- Cylinder yards transitioned from BJC to UDS on June 27, 2005
- UDS began S&M operations on June 30, 2005
- An agreement with the Bonneville Power Administration (BPA) has been approved to transfer 672 cylinders of DUF₆ to BPA to supply power reactor fuel
- Cylinder yards on the south side of the plant have been reconfigured to a Property Protection Area (PPA). Work in the PPA does not require security clearance; UDS controls access according to a DOE approved security plan.

Activity over next 60 days for surveillance/maintenance:

- An agreement with USEC has been approved to "clean up" 743 cylinders of off-spec "normal" UF₆

**Project Status Update for Paducah DOE Citizens Advisory Board
September 8, 2005
Project: Depleted Uranium Hexafluoride (DUF₆) Conversion Facility**

Contact Persons:

DOE Site Office: John Sheppard
Uranium Disposition Services: Dick Veazey
Commonwealth of Kentucky:
U.S. Environmental Protection Agency:
Citizens Advisory Board:

Purpose: Design, build, and operate the DOE DUF₆ Conversion Facility.

Description: The Atomic Energy Act, as amended, gives DOE responsibility for the DUF₆ 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 DUF₆. There are also 182 cylinders of low-enriched UF₆, about 1,500 cylinders of "normal" UF₆ (which has not gone through the enrichment process), and 275 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.

Conversion is expected to begin in 2007. DOE selected Uranium Disposition Services LLC to design, build, and operate facilities in Paducah and Portsmouth to convert DUF₆ to a more stable form for disposal or recycling. Site preparation construction began in July 2004.

Issues: None

Recent accomplishments/activities:

- Site preparation subcontract complete.
- Underground Utilities yard piping subcontract complete.
- Underground Utilities yard electrical subcontract complete.
- Cylinder Yard Fence subcontract complete.
- Construction Trailer Set-up subcontract complete.
- Construction of the Conversion Project warehouse foundation has been started.

Activity over next 60 days for surveillance/maintenance:

- Begin warehouse building construction.
- Award contract and begin construction activities for soil stabilization for conversion building.
- Begin construction of the Administration building.
- Conversion building pre-cast panels being designed.
- Award contract for conversion building foundation.

Project Status Update for Paducah DOE Citizens Advisory Board
September 8, 2005
Project: Solid Waste Contained Landfill

Contact Persons:

Bechtel Jacobs Company LLC: Jim Ehlers/Steve Davis
Commonwealth of Kentucky: Todd Hendricks
U.S. Environmental Protection Agency: David Williams
Citizens Advisory Board: John Russell

Purpose: Waste Disposition

Description: The 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-111R4)
- C-746-U Landfill Solid Waste Disposal Facility Permit Number 073-00045

Issues:

- The Kentucky Division of Waste Management (KDWM) issued a letter of withdrawal on July 6, 2005 for the S, T and U permit modification due to an administrative error. The public comment period had not expired and the permit was issued prematurely. Currently the landfill facility is operating on the exiting permit which expires in 2006. Permit was reissued for public comment on July 11, 2005. Permission to construct Leachate Treatment Facility was withdrawn pending reissuance of the Permit. The comment period closed August 10, 2005. KDWM is addressing comments received.

Recent accomplishments/activities:

- Disposed of 208 tons of waste in August
- Subcontract for construction of leachate treatment facility (A&K Construction) anticipates delivery of leachate treatment unit in early September.

Activity over next 60 days:

- Continue disposal of construction debris and other non-hazardous solid waste streams
- Support the Kentucky Research Consortium for Energy and Environment Holocene Displacement Study
- Initiate construction of leachate treatment facility within two weeks of reissuance of Permit.

Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005
Project: Waste Disposition

Contact Persons:

Bechtel Jacobs Company LLC: Pat Gourieux/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 DWM-30039-42

Issues:

- None

Recent accomplishments/activities:

- Shipment and processing of UF₄ to Duratek/Bear Creek continues
- Shipped 10,853 cubic feet of UF₄ to Duratek/Bear Creek
- Disposed 5400 cubic feet of outside (crushed drums) waste in the C-746-U landfill
- Processing of Agreed Order waste for landfill disposal and shipment to Envirocare continues
- Disposed 3861 cubic feet of Agreed Order waste in the C-746-U landfill
- Shipped 414 cubic feet of Agreed Order waste to Envirocare
- Initiated processing activities for Sewer Sludge (low level waste) for future shipment to Envirocare

Activity over next 60 days:

- Complete shipment of UF₄ to Duratek and Envirocare
- Complete disposition of ~ 4750 containers of Agreed Order “no-longer contains” waste at Envirocare or the C-476-U Landfill, as appropriate
- Ship four trucks of mixed low-level waste to Perma Fix facilities and Envirocare
- Ship tanker of liquid waste to TSCA Incinerator
- Continue disposition of approximately 2000 containers of LLW stored in outside facilities
- Begin shipment of Sewer Sludge waste to Envirocare

**Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005**

Project: Decontamination & Decommissioning (D&D)

Contact Persons:

Bechtel Jacobs Company LLC: 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-410/C-420 complex and the C-340 Metals Plant 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.

Key documents (C-410):

- 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

Issues:

- None

Recent accomplishments/activities:

- Continued removal of fluorine cell stands and platforms in Sector 2
- Completed HVAC and electrical installations in boundary control station and installed two of three personal contamination monitors (half body monitors).
- Subcontractor initiated mobilization for C-603 Nitrogen Generating Facility demolition
- Submitted D2 Engineering Evaluation and Cost Analysis (EE/CA) for C-402 Lime House, C-405 Contaminated Items Incinerator, and C-746-A West End Smelter.
- Received approval from the Environmental Protection Agency and the Commonwealth of Kentucky on the EE/CA for C-402 Lime House, C-405 Contaminated Items Incinerator, and C-746-A West End Smelter
- Preparations underway for public comment period
- Initiated electrical isolation and demolition in Zone 64 (C-411 portion of C-410 Complex).

Activity over next 60 days:

- Continue packaging of loose materials in C-410 Complex
- Continue electrical isolation and demolition in Zone 64 (C-411 portion of C-410 Complex)
- Train staff on use of new personal contamination monitors and begin use of C-410 Complex Boundary Control Station
- Disposition material from C-410-A Hydrogen Holder in landfill
- Demolition activities at C-603 Nitrogen Generating Facility

Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005
Project: DOE Material Storage Areas (DMSAs)

Contact Persons:

Bechtel Jacobs Company LLC: Rick Keeling
Commonwealth of Kentucky: Jon Maybriar/Mike Guffey
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 that are now the DMSAs, 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:

- Increased rigor in characterizing painted items for PCB content has impacted characterization, packaging, and disposal activities. Effort is under way to resolve different requirements and allowances between Kentucky and EPA regulations for solid waste disposal of painted items.

Recent accomplishments/activities:

- Over 1,100 cubic ft. of material was processed for characterization during August
- Over 7,400 cubic ft. after size reduction packaged for disposal in the month of August
- ~5,800 cubic ft. disposed in August after size reduction
- Eleven PG Coolers from DMSA OS-15 have been shipped for disposal; four PG Coolers and One PG Booster await sizing, packaging, and shipment for disposition
- Rail Cars stored in DMSAs OS-04 and OS-14 were removed and transferred to OS-06 for sizing packaging, and disposition in August, emptying DMSAs OS-04 and OS-14.

Activity over next 60 days:

- Continue packaging and disposition of DMSA OS-15 material
- Pursue disposition of OS-4 and OS-14 material
- Pursue boundary removal of OS-02, C-331-04, -07, and -20
- Continue characterization of "Priority B" DMSAs under the Agreed Order

Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005
Project: Groundwater Operable Unit

Contact Persons:

Bechtel Jacobs Company LLC: Bryan Clayton/Lance Fleming

Commonwealth of Kentucky: Jon Maybriar/Todd Mullins

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: Jim Smart

Purpose: Environmental Cleanup

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 (⁹⁹Tc). Remedial actions will be designed and implemented after completion and signing of Records of Decision (RODs).

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)
- Proposed Remedial Action Plan for the Volatile Organic Compound Contamination at the C-400 Cleaning Building (DOE/OR/07-2114)
- Southwest Plume Site Investigation Workplan (DOE/OR/07-2094)
- S&T Landfill Site Investigation Workplan (DOE/OR/07-2098)
- Record of Decision for Interim Remedial Action for the Groundwater Operable Unit for the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant (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 Building...(DOE/OR/07-2214&D1)

Issues: Discussions with the State of Kentucky and EPA are continuing concerning the use of biodegradation factors utilized in groundwater modeling to support risk assessment development. The groups are continuing to discuss potential actions to resolve the use of the values.

Recent accomplishments:

- Signed and issued the C-400 Interim Remedial Groundwater Action ROD on August 9, 2005
- Issued the D1 Remedial Design Work Plan to support development of the C-400 Remedial Action design and construction specifications for submission to the State and EPA on August 11, 2005
- Received contract proposals from contractors responding to the Request for Proposal for a remediation contractor to design, build and operate the Electrical Resistance Heating at the C-400 Building.

Activity over next 60 days:

- Submit the C-746-S&T Landfill Site Investigation Report
- Evaluate C-400 contract proposals to implement Interim Remedial Action
- Resolve biodegradation factors use and values applied to groundwater modeling in support of risk assessments evaluating groundwater risk in the Regional Gravel Aquifer.
- Receive comments on D1 RDWP for C-400 Interim Action, revise the document and reissue as a D1 document for approval.

FFA Milestones:

- Submit the D2 Southwest Plume Site Investigation Report by September 7, 2005. (Milestone being modified pending resolution of the biodegradation factor use in groundwater models.)
- Submit the D1 S&T Landfill Site Evaluation Report by September 30, 2005
- Southwest Plume Proposed Remedial Action Plan, due on October 7, also being modified due to groundwater biodegradation factors. DOE has requested an extension to November 6, 2005.

Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005
Project: Surface Water Operable Unit (On-Site)

Contact Persons:

Bechtel Jacobs Company LLC: Dave Guyan/Lance Fleming

Commonwealth of Kentucky: Jon Maybriar

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: Jim Smart

Purpose: Environmental Cleanup

Description: The Surface Water Operable Unit (On-Site) Project includes a site investigation to identify hot spots 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:

- Sampling and Analysis Plan for Site Investigation and Risk Assessment of the Surface Water Operable Unit (On-Site), DOE/OR/07-2137&D2/R2.

Issues: None

Recent accomplishments:

- Sampling for the SWOU began June 20, 2005
- Planned soil samples from the ditches are 92% completed as of September 2, 2005
- Two months of the three-month-long storm sewer sampling has been completed

Activity over next 60 days:

- Begin contingency soil sampling to further delineate extent of contamination at locations that exceeded the indicator chemicals in NSDD Sections 3, 4 and 5 and at the internal ditches
- Complete the third (final) month of the storm sewer water sampling
- Conduct upgradient storm sewer sampling at one of the four storm sewer discharges that exceeded the indicator chemicals

FFA Milestones:

- Issue Site Investigation/Risk Assessment Report by April 27, 2006
- Issue Removal Notification by June 23, 2006.

**Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005
Project: Scrap Metal Removal Project**

Contact Persons:

DOE Site Office:

Bechtel Jacobs Company LLC: Wes Bass/Chris Marshall/Craig Jones

Commonwealth of Kentucky: Jon Maybriar

U.S. Environmental Protection Agency: David Williams

Citizens Advisory Board: Jim Smart/John Russell

Purpose: Environmental Cleanup/Waste Disposition

Description: About 54,000 tons of scrap metal exists at the PGDP. This project involves the removal of 26,700 tons of general scrap metal, 2,000 tons of aluminum ingots, and 15,600 tons of classified material. This 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:

- 1,905 tons of scrap metal were shipped by truck in August from C-746-D yard to NTS
- During August, 156 tons of turnings waste were shipped to Envirocare, completing the turnings shipments. All together, a total of 257 tons of turnings waste were shipped to Envirocare.
- Shipped 44 gondola rail cars carrying a total of 1,530 tons of scrap to Envirocare during August, bringing the total number of rail cars shipped to 60, i.e. 180 sealand containers.

Activity over next 60 days:

- Continue disposition operations by inspecting, sorting, size-reducing and packaging scrap metal
- Complete shipment of cargo containers of scrap metal to Envirocare via rail for disposal
- Continue shipment of scrap metal to NTS
- Initiate pallet removal in C-747-A Scrap Yard.

**Project Status Update for DOE Paducah Citizens Advisory Board
September 8, 2005
Project: Burial Grounds OU**

Contact Persons:

Bechtel Jacobs Company LLC: John Young/Lance Fleming
Commonwealth of Kentucky: Jon Maybriar
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 subject of this scoping document is the BGOU (Solid Waste Management Units [SWMUs] 2, 3, 4, 5, 6, 7, 30, and 145).

Key documents:

- D1 Burial Grounds OU Scoping Document
- D1 Burial Grounds RI/FS Work Plan

Issues: None

Recent accomplishments:

- D1 Burial Grounds OU Scoping Document was issued November 2004
- State and EPA comments were discussed in a series of meetings and all comment and concerns will be addressed in the Workplan.
- D1 Workplan was completed and distributed on June 30, 2005

Activity over next 60 days:

- D1 Workplan is in review with the regulators and comments are due September 30, 2005
- Issue Request for Proposals to implement Workplan.