



PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes March 20, 2008

The Citizens Advisory Board (CAB) met at the CAB office in Paducah, Kentucky, March 20, 2008, at 6 p.m.

Board members present: John Anderson, Allen Burnett, Judy Clayton, Shirley Lanier, Jim Smart and Don Swearingen

Board members absent: Bobby Lee, Alex Roman, Elton Priddy and John Russell

Board Liaisons and related regulatory agency employees: Todd Mullins, Kentucky Division of Waste Management

Deputy Designated Federal Official: Reinhard Knerr

DOE Federal Coordinator: Mitch Hicks

U.S. Department of Energy (DOE) related employees: David Ashburn, Rich Bonczek, Russ Boyd, Paul Corpstein, Kim Crenshaw, Tracey Duncan, Bruce Gardner, Steve Manning, Jerry Mayes, Jim McVey, Bill Murphie, Todd Nelson, and Eric Roberts

Public: Gary Long

Agenda

The proposed March agenda was modified to include DOE presentations on the C-746-U Landfill Leachate Treatment System and the Fiscal Year (FY) 2010 DOE Environmental Management (EM) Budget Development at the Paducah Gaseous Diffusion Plant (PGDP). In addition, discussion of the policy statement on the management of DOE's excess uranium inventory was included. **The Board approved the agenda as modified.**

Deputy Designated Federal Official Comments

Knerr presented project updates and presentations to the Board on the C-746-U Landfill Leachate Treatment System and the FY 2010 DOE EM Budget Development at the PGDP. All presentations are available on the CAB Website at www.pgdpcab.org. Questions and answers (paraphrased) appear below.

Questions/Comments	Answers
Project Updates	
Burnett: Were cure notices issued to the Depleted Uranium Hexafluoride (DUF ₆) Conversion Facility contractors at both Paducah and Portsmouth?	Murphie: Yes.
Burnett: The United States Enrichment Corporation (USEC) had requested that DOE transfer some of the DUF ₆ tails to them. What is the status of the request?	Murphie: There have been several other companies with the same request. All of the requests have been denied and it is anticipated that there will be a competitive procurement process and possible legislative issues beyond DOE's control.
Burnett: Has DOE agreed to the Environmental Protection Agency's (EPA) position on treatment at the source for the Southwest Plume?	Knerr: DOE, EPA and Kentucky have the same goals for cleanup. DOE is following the EPA direction.
Burnett: Are the proposed enforceable milestones in the D1 FY08 Site Management Plan (SMP)?	Knerr: Yes, the milestones within the three year window are included in the SMP.
Burnett: Will the Electrical Resistance Heating at C-400 begin in November as planned?	Knerr: That will depend on how quickly comments are received from EPA and Kentucky and the nature of the comments. The Remedial Action Work Plan and the Remedial Design must be approved before fieldwork can begin. DOE is working on procurement and fieldwork preparation to minimize schedule delays.
C-746-U Landfill Leachate Treatment System	
Burnett: Will the existing capacity of the C-746-U-Landfill be exhausted in August 2008?	Knerr: September 2008 is the current date. DOE is anticipating having additional leachate tank capacity in place with Phases 4 and 5 operational to support operational needs and avoid any slow down of waste disposition activities.
Burnett: Does the Kentucky Pollutant Discharge Elimination System permit only address solids and volatile organics? There have been past public concerns of radioactive materials in the leachate such as uranium.	Knerr: DOE samples for uranium in outfall discharges. All limits are met for the discharges and all sampling data is reported to the state. The treated leachate is sampled once a month at the outfall.

FY 2010 DOE EM Budget Development at the PGDP

<p>Burnett: How does DOE plan to meet the milestones with the decrease in the budget?</p>	<p>Knerr: A few projects have been delayed due to DOE and regulator agreements on the cleanup actions. DOE does not anticipate missing current milestones or any layoffs for the remediation work due to the shortfalls.</p> <p>Murphie: There is a large amount of carryover funds at this time and there is a flywheel effect with Decontamination and Decommissioning (D&D) activities that are not driven by regulatory commitments. Paducah DOE is fortunate to have an FY09 budget request that meets milestone commitments. Some of the other sites are not able to meet their milestone commitments.</p>
<p>Burnett: Headquarters has asked the CABs to review the site budgets and provide input.</p>	<p>Murphie: The goal for this presentation is to begin discussions on the budget.</p>
<p>Smart: Will the \$20 million shortfall for FY09 affect the cleanup efforts in Paducah?</p>	<p>Knerr: It will not affect the ability for DOE to meet the Federal Facilities Agreement milestones in the SMP.</p> <p>Murphie: FY 2010 and later milestones may be affected because carryover funds may not be available.</p>

Excess Uranium Inventory Policy Statement

Murphie discussed the Secretary of Energy’s policy statement on management of DOE’s excess uranium inventory. The policy states that DOE is looking to create different options that would result in the potential sale and/or re-enrichment of the tails, reduce the amount of natural uranium for enrichment, and downgrade the highly enriched uranium for non-proliferation objectives. This is potentially DOE’s first step to enter into the process of the sale or disposition of the depleted uranium that might return to the site and extend the life of the PGDP. The policy will be distributed to the Board.

Liaison Comments

Knerr said David Williams, EPA, has been promoted at Region 4. Jennifer Tufts will provide support until a new FFA Manager has been named. Tufts work schedule does not include Board meeting dates and asked if the Board would be interested in changing the regularly scheduled meeting to Tuesdays for EPA participation. FFA meetings would be changed to Tuesdays if the Board opted to change their schedule.

Public Comments

Todd Nelson, United Steel Workers, said there will be a Congressional Hearing regarding the uranium tails on April 3. The Union President will be testifying at the hearing and could provide an invitation list to the CAB, if interested.

Administrative Issues

Motions

Burnett presented a recommendation to DOE regarding Long Term Strategy for Disposal of Recyclable Material at the PGDP. The recommendation suggests development of a strategy for disposal of all recyclable metals that will be generated during the Decontamination and Decommissioning of the gaseous diffusion plants to maximize reuse/reclamation. This strategy should include:

- Preparation of an overall strategy for disposition of all D&D recyclable metals, including final disposition of nickel in process equipment
- Formulation of an incremental release strategy for recyclable metals to avoid unacceptable market upsets
- Development of acceptable release criteria to private sector for radiation levels within all recyclable metals.
- Reconsideration of moratorium conditions for free release of volumetrically contaminated metals.

The Board approved the proposed recommendation.

The top three issues selected by the Board for the Spring Chairs Meeting are long term strategy for disposal of recyclable materials, C-400 area groundwater remediation and proposed waste disposal options. Timeliness of DOE documents and the shortfall of the EM budget are important issues and may be considered a top issue for the Fall Chairs Meeting. Murphie requested that the CAB inform DOE which particular documents the CAB has concern. Some of the timeliness issues DOE may be able to help with and some are outside their control. The Executive Committee will revise the subpoints of each issue before issuing to DOE Headquarters on March 28.

The meeting adjourned at 8:00 p.m.

Progress at the Paducah Project

Update to the
Paducah Citizens Advisory Board

March 20 , 2008



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Purpose of Presentation

- **DUF₆ Conversion Facility**
- **Inactive Facility D&D status**
- **Southwest Plume Status**
- **Legacy Waste**
- **Other Projects**



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Depleted UF₆ Conversion Facility



Construction on the conversion facility is continuing.



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Inactive Facility D&D

Facility	Complete?	Status – Scheduled Completion Date
HF Tank Farm	Yes	
Hydrogen Holder Tank	Yes	
Nitrogen Complex (6 facilities)	Yes	
Lime House	Yes	
Incinerator	Yes	
C-612 Clamshell	Yes	
West End Smelter		Working; completion 4/08
C-410/420 Complex		Working; completion 2012
C-342 Ammonia Facility (2 facilities)		Starting May 2008; completion fall 2008
Neutralization Pit		Completion 2009
Firing Range		Completion 2009
Sludge Pit		Completion 2009
C-611 Silos (2 facilities)		Completion 2009
C-340		Start 2011 – Finish 2017



Inactive Facility D&D - West End Smelter



Inside the building before and after equipment removal.

- Completed removal of furnaces
- Site preparation work scheduled for week of March 24, 2008



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Inactive Facility D&D - West End Smelter



The smaller of the two furnaces, shown above, was located in this area of the smelter.



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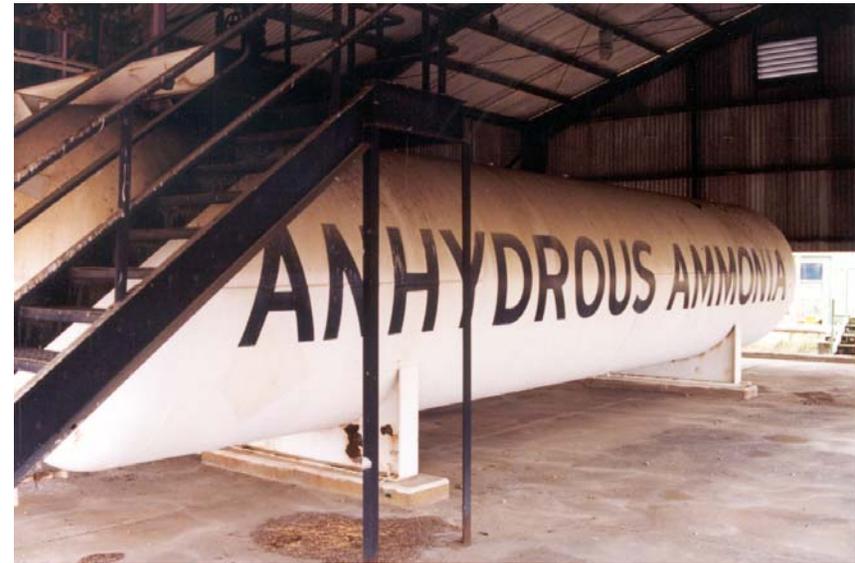
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Inactive Facility D&D - C-342 D&D



The C-342 Ammonia Complex is the next scheduled D&D project. Debris removal is scheduled to begin in May 2008, with completion in the fall.



Above, one of the two 20,000-gallon ammonia storage tanks; right, one of the 12 ammonia dissociations that separated ammonia into nitrogen and hydrogen for use in the plant.



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Inactive Facility D&D - C-410 D&D



Recent tour visitors look inside Sector 4 of C-410. A wall with a viewing window has been removed.

- Removal of accessible asbestos completed in Sector 4
 - Area down-posted to allow access without respirator
 - Sector 4 is located on the other side of the former glass wall where tour visitors could see inside C-410

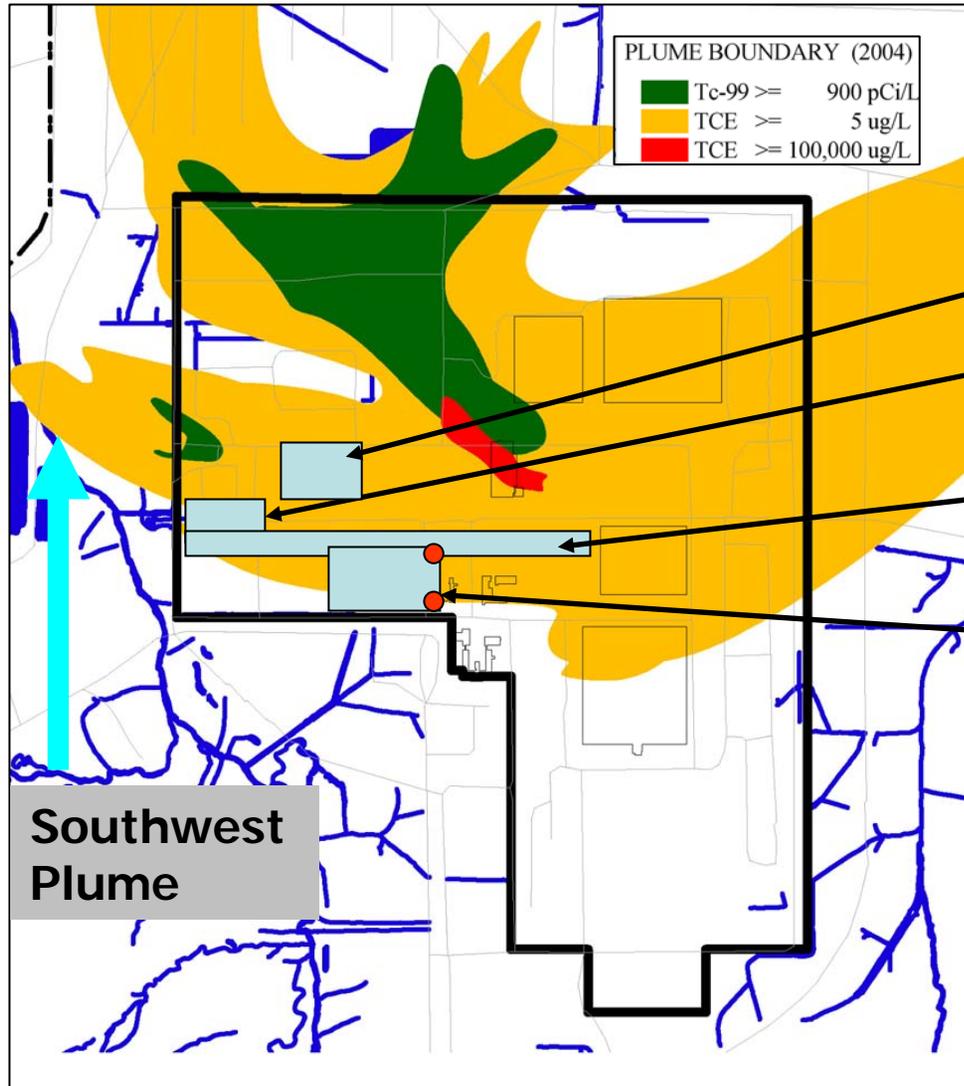


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Southwest Plume Status - Background



Southwest Plume Sources

C-747 (SWMU 4)

Oil Land Farm (SWMU 1)

Storm Sewer Area (SWMU 102)

C-720 Building Area (NE and SE corners)



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Southwest Plume Status - Background

- **Informal dispute invoked
November 2006**
- **Final resolution expected in
mid-March 2008**



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Southwest Plume – Tentative Agreement

Elements in the proposed dispute resolution:

- Conduct a Focused Feasibility Study (FFS) to address 1) 747-C Oil Landfarm, 2) C-720 Building (specifically areas near the NE and SE corners), and 3) part of the storm sewer between the south side of C-400 and Outfall 008
- Site Investigation will not be revised or signed, but the data and risk assessment are considered valid for use in the Feasibility Study
- The FFS will include a remedial action objective for addressing sources
- Develop a Proposed Plan (PP) and Record of Decision (ROD) for conducting a remedial action for the Southwest Plume sources
- Address the Southwest Dissolved-Phase Plume as part of the Groundwater Operable Unit (GWOU) Dissolved-Phase Plumes Project



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Southwest Plume – Background

DOCUMENT No. DOE/OR/07-2180&D2

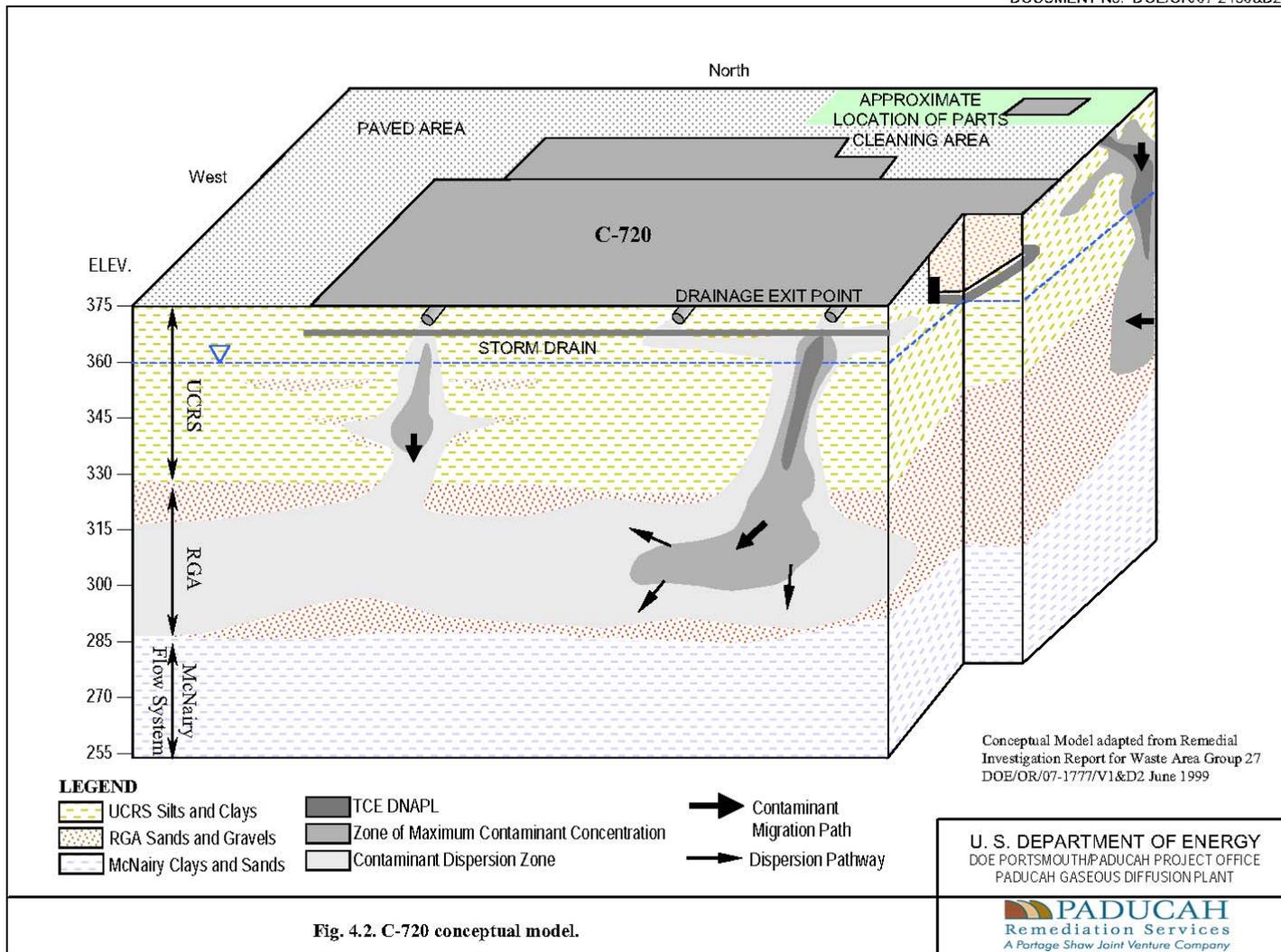


Fig. 4.2. C-720 conceptual model.



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Southwest Plume – Tentative Agreement (Cont.)

Additional elements in the proposed dispute resolution:

- Groundwater Operable Unit Dissolved-Phase Plumes RI/FS Work Plan will include Remedial Action Objective to return groundwater to beneficial use
- Address the C-747 Contaminated Burial Ground (SWMU 4) as part of the Burial Grounds Operable Unit Project
- Burial Grounds RI/FS Report will include Remedial Action Objective for addressing SWMU 4
- Include enforceable milestones in the FY-08 SMP for SW Plume FFS, PP, and ROD, and the RI/FS Work Plan for Groundwater Dissolved-Phase Plume Project



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Legacy Waste Disposition



- From November 2007 through February 2008, more than 32,000 ft³ of legacy waste dispositioned
 - More than two-thirds complete with total legacy waste disposition
- Site Treatment Plan Milestone extended to From January 31, 2008, to April 30, 2008

Photos at left show C-746-B before recent shipments began in October 2007 and again in February 2008.

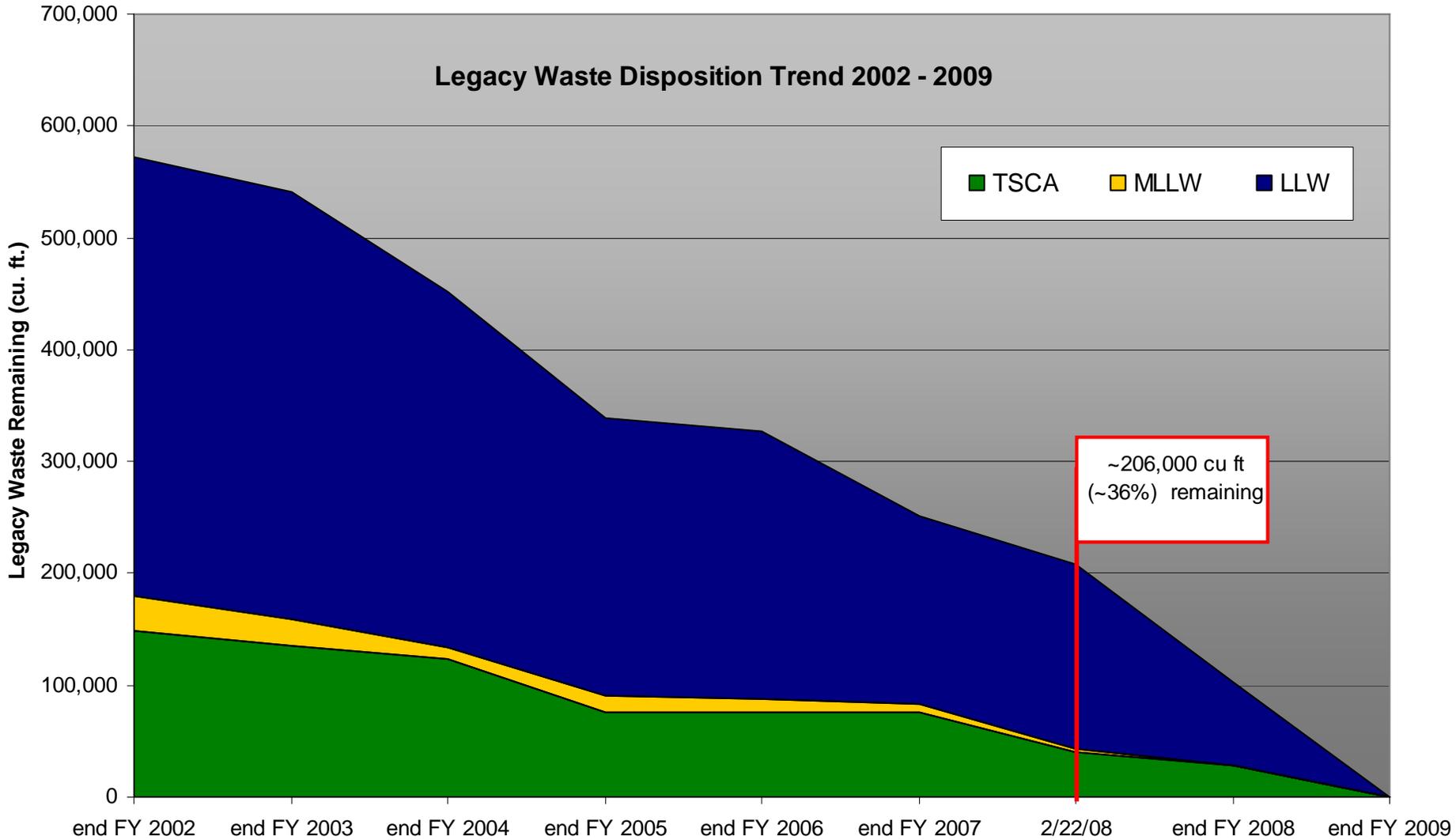


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Legacy Waste Disposition



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Other Project News

- DOE Material Storage Areas
 - 60 areas now returned to use by USEC or for common use by USEC and DOE
- Surface Water
 - Site Investigation/Baseline Risk Assessment issued March 10, 2008
 - Engineering Evaluation/Cost Analysis (EE/CA) issued February 7, 2008
- C-400
 - D2 Remedial Design submitted to Kentucky and EPA on February 14, 2008
- Soils Operable Unit
 - EE/CA for removal of three facilities with contaminated soils scheduled to be issued late March
- Waste Disposal Options
 - Scoping Document tentatively scheduled for delivery to regulators and CAB in March



Barrier ropes are removed at a DOE Material Storage Area in the C-335 Building. The DMSA is one those returned to USEC since January 2008.



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DOE Portsmouth/Paducah Project Office

Solving Cleanup Challenges Through Risk Reduction

C-746-U Landfill Leachate Treatment System

Presentation to the
Paducah Citizens Advisory Board

March 20 , 2008

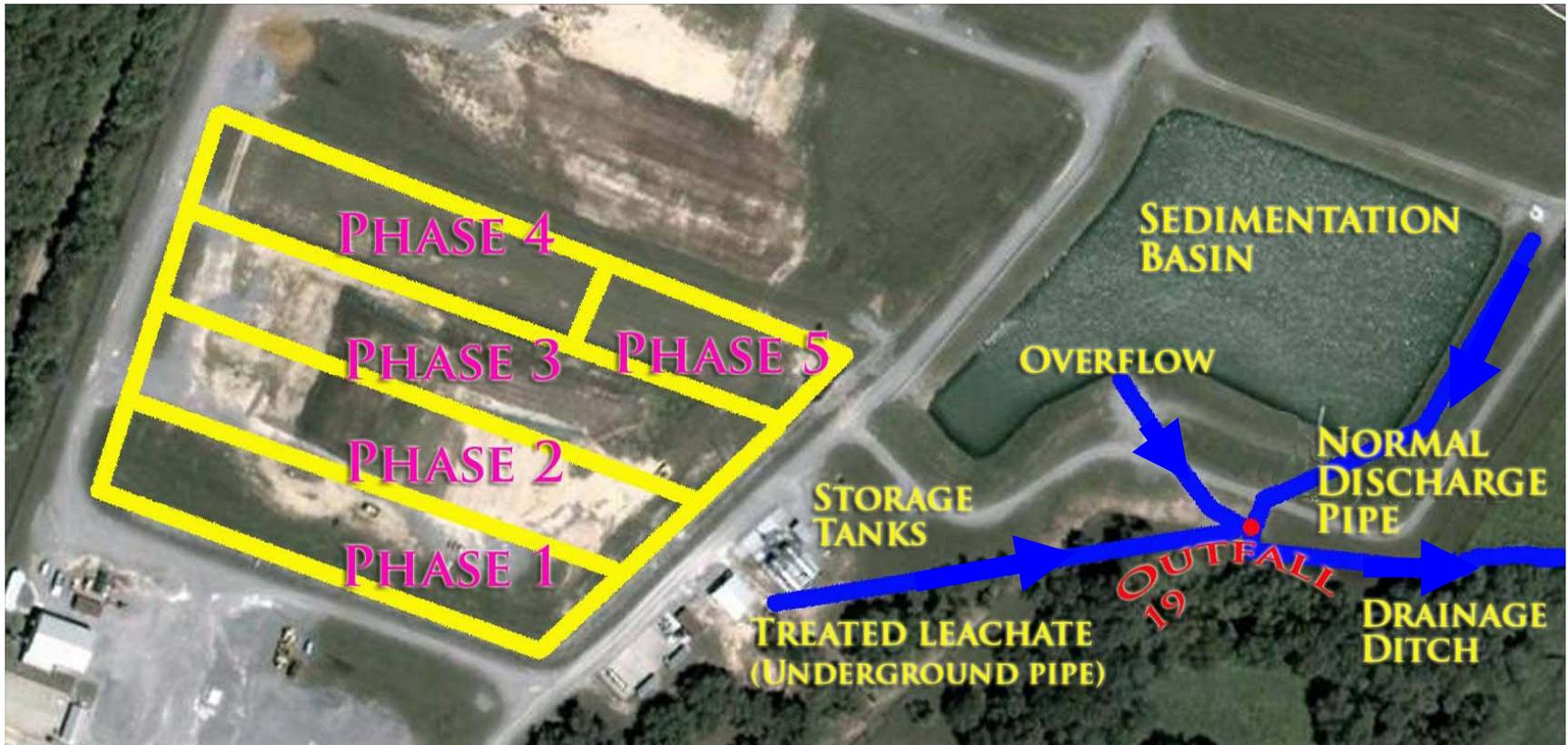


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C-746-U Leachate Treatment System



- Operational May 2007; treats leachate from three active phases on the U-Landfill and leachate from the S-Landfill
 - U-Landfill leachate flows into and out of system through underground pipes
 - S-Landfill leachate moved into treatment system by mobile tanker
- More than 98,000 gallons treated and discharged in 2007



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C-746-U Leachate Treatment System



The level is measured in one of the leachate treatment system's 31,000-gallon storage tanks.



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C-746-U Leachate Treatment System

- System removes suspended solids and volatile organic compounds (VOCs)
- Suspended solids and VOCs collected in filters
 - Fiber filters for solids
 - Activated carbon for VOCs
- Samples collected routinely during discharges
- Results reported to Kentucky quarterly
- No operational problems; system has performed as designed
- Leachate all within KPDES permit limits
- Operates as needed; on average, 2 days/week sufficient to treat leachate



An operator adjusts flow rate at the system's control panel.



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C-746-U Leachate Treatment System

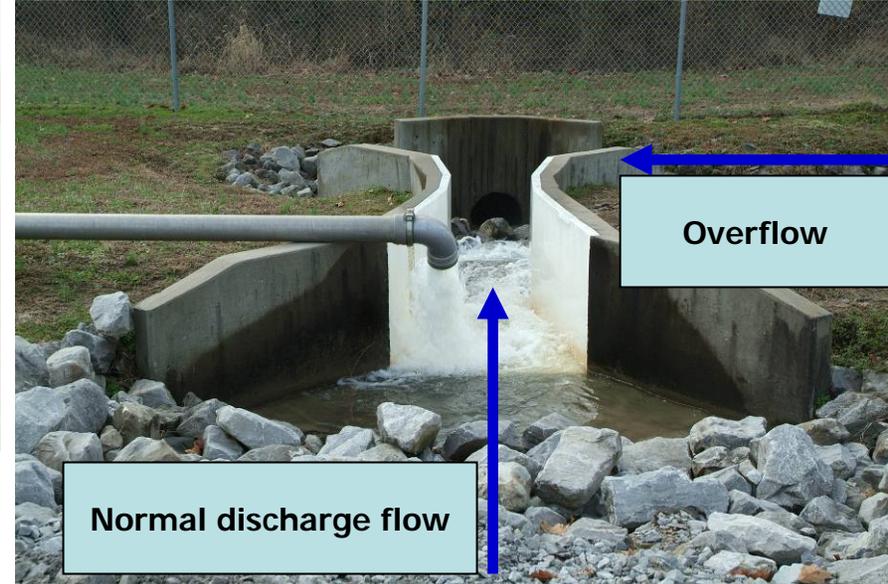


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Landfill Sedimentation Basin



Above left, the basin as shown from the head of the spillway on the south side of the basin; above right, looking down the spillway at the outfall; below left, looking from the outfall back toward the basin (the pipe where normal discharges are made is located on the right).



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FY 2010

DOE EM Budget Development

Paducah Gaseous Diffusion Plant

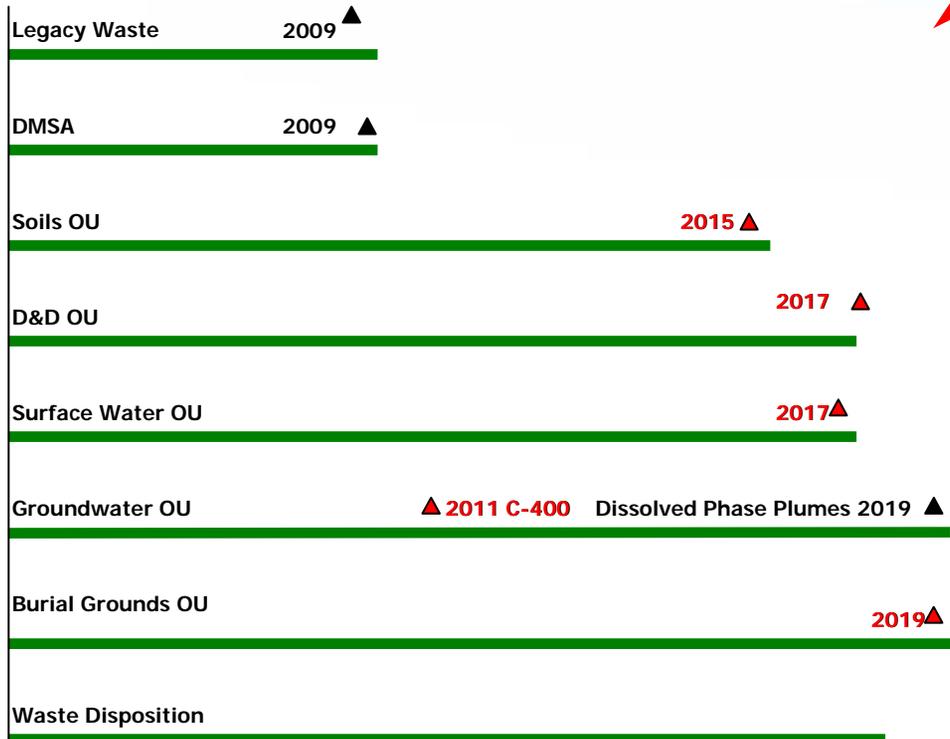
Reinhard Knerr



Paducah Cleanup Schedule



Near-Term					Out-Year	
2007	2008	2009	2010	2011-2015	2016-2020	2021-2040
Environmental Remediation - Pre-GDP D&D						



Target Funding Levels



PBS	FY 10	FY 11	FY 12	FY 13	FY 14
PA-0011 - Uranium Enrichment (PCBs)	2,257	2,390	2,300		
PA-0013 - Waste Management	9,653	8,267	7,195		
PA-0020 - Safeguards and Security	8,333	8,533	7,885		
PA-0040 - Cleanup and S&M	84,605	77,721	79,836		
PA-0102 – DOE Directs	3,206	3,206	3,206		
PA-0103 - CAB and AIP	2,483	2,483	2,483		
EM Cleanup	110,537	102,600	102,905		
PA-0011X - DUF6	34,192	33,992	34,639		
Total Projected Funding*	144,729	136,592	137,544	140,708	143,944

*Doesn't include carry over

FY2010 PBS Level Budget Request – Paducah



PA-0013 - Waste Management	9,653	
PA-0040 - Cleanup and S&M	84,605	
EM Cleanup – Project Level Subtotal		94,258
PA-0011 - Uranium Enrichment (PCBs)	2,257	
Includes PCB activities and miscellaneous facilities S&M		
PA-0020 - Safeguards and Security	8,333	
Includes SST security oversight and contributions to USEC protective forces		
PA-0102 - DOE Directs	3,206	
FOIA requests, etc.		
PA-0103 - CAB and AIP	2,483	
Includes CAB budget and Agreements in Principal		
EM Cleanup – Operations LOE Subtotal		16,279
PA-0011X - DUF6	34,192	<u>34,192</u>
Total Projected Funding		144,729

FY 2010 Summary Level Scope/Budget Breakdown



1. IMMINENT THREATS

0

No activities at Paducah currently identified in this category

2. BASE OPERATIONS

107,461

Waste Operations

Surveillance and Maintenance

Security

DUF6 Conversion Facility

Program Direction

FY 2010 Summary Level Scope/Budget Breakdown



3. ENFORCEABLE COMMITMENTS

47,052

Agreed Order

DMSAs

Federal Facilities Agreement

C-400 Action

Burial Grounds

Surface Water Operable Unit (On-site)

C-410 D&D

Soil and Rubble Areas

Inactive Facilities D&D

Southwest Plume Investigation

Surface Soil Operable Unit

Site Treatment Plan

TRU Waste

TSCA FFCA Wastes

FY 2010 Summary Level Scope/Budget Breakdown



4. REMAINING WORK

7,897

CERCLA Waste Disposal Evaluation

Low Level Waste Disposal

Classified Waste Disposal

Groundwater Offsite Plume Action

C-340 D&D

Surface Water Operable Unit (Off-site)