PADUCAH GASEOUS DIFFUSION PLANT
CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes
May 15, 2008

The Citizens Advisory Board (CAB) met at the CAB office in Paducah, Kentucky, May 15, 2008, at 6 p.m.

Board members present: John Anderson, Allen Burnett, Judy Clayton, Bobby Lee, Shirley Lanier, Alex Roman, John Russell, Jim Smart and Don Swearingen

Board members absent: Elton Priddy

Board Liaisons and related regulatory agency employees: Mike Guffey, Todd Mullins, April Webb, Ed Winner, Kentucky Division of Waste Management (KDWM); Turpin Ballard, U.S. Environmental Protection Agency (EPA);Tim Kreher, Kentucky Department of Fish and Wildlife Resources (KDFWR); Stephanie Brock and Rob Gresham, Kentucky Radiation Health Branch (RHB)

Deputy Designated Federal Official: Reinhard Knerr

DOE Federal Coordinator: Rob Seifert

U.S. Department of Energy (DOE) related employees: Rich Bonczek, Yvette Cantrell, Kim Crenshaw, Paul Gagnon, Ashton Haus, Matt LaBarge, Steve Manning, Jerry Mayes, Janet Miller, Todd Nelson, Eric Roberts and Scott Smith

Public: Barbara Lahndorff, Myron Scott, Gary Vander Boegh, Corinne Whitehead, Ernest Whitehead and Melia Wood

Agenda

Mayes asked for modifications to the proposed May agenda. **The Board approved the agenda as submitted.**

Minutes

Mayes asked for modifications to the draft April minutes. **The Board approved the minutes as submitted.**

Deputy Designated Federal Official Comments

Knerr presented project updates to the Board. All presentations are available on the CAB Website at www.pgpdcab.org. Questions and answers (paraphrased) appear below.

Questions/Comments	Answers
Smart: Requested information and sensitivity of the flyover survey.	**Knerr:** A copy of the flyover work plan will be provided to the CAB.
Burnett: Can the flyover survey distinguish the difference in radiation levels?	**Knerr:** The flyover does detect a difference in levels. There were no significant findings during the 1996 flyover.
Lee: Will the trichloroethylene (TCE) degradation presentation in June identify the results of the study?	**Bonczek:** The results have indicated in Phase I that the degradation of the TCE has a half life of six to thirteen years. Phase II is the aerobic biodegradation evaluation. The report and White Paper including recommendations for future study are being prepared. Phase III is currently being initiated which is the Stable Carbon Isotope Investigation. Phase IV involves the investigation of abiotic degradation. Additional details will be provided at the June Working Session.
Burnett: Requested that the presentation identify what is produced with the degradation and whether it is benign or of concern.	
Kreher: Since the1996 flyover, materials were found during the Waste Area Grouping 17 investigation in 2002 resulting in materials to be taken inside the security fence. Even though the sensitivity has been enhanced since the last flyover, would it be possible that material could exist two feet below the surface that the flyover does not detect?	**Knerr:** The flyover is being conducted to look for areas that need further investigation. The walkover survey will look at various areas in the Wildlife Management Area (WMA).
Kreher: Will DOE be able to make a statement after the walkover and flyover surveys are conducted, that in 20 years materials will not be discovered five feet below the surface? If not, is there anything that can be done to avoid additional discoveries of radiologically contaminated materials in the WMA?	**Knerr:** The activities that DOE plans on performing will significantly reduce the likelihood of radiological contaminated materials in the WMA. DOE has controls in place to prevent the release of radiological contamination from the site and the conjunction of planned activities will produce a high probability that significant levels of radioactive contamination will not be found in the WMA.
Russell: Has a radiological survey of this area ever been conducted?	**Knerr:** Other than the previous flyover, a comprehensive survey outside the fence has not been conducted.
Burnett: What is the status of the End State Vision document?	**Bonczek:** The document will be distributed next week.

Federal Coordinator Comments

Seifert presented an appreciation letter to Lee for developing a forum at West Kentucky Community and Technical College to advance the community outreach efforts of the CAB.

Liaison Comments

Environmental Protection Agency

Ballard said he is glad to work with the CAB and asked members to call him anytime with questions.

Lee requested that EPA present their regulatory stance on the TCE degradation at the June Working Session.

Kentucky Department of Fish and Wildlife Resources

Kreher said KDFWR would prefer not to have to contact DOE or its contractors to provide support every time they plan on disturbing a portion of the WMA in the future. If that can be prevented now, he would prefer to do so.

Lee asked Kreher what he suggests that DOE do in addition to the walkovers to identify all subsurface radiological contamination. Kreher said that in the past there have been agreements that there was no concern on rubble used for erosion control in the WMA and a couple of years later KDFWR was notified that there was a concern. The point is that elevated radiological contaminates were found after the earlier flyover. KDFWR does not want the same thing to happen after this flyover. Kreher said he is not implying that DOE should remove all rubble piles. If DOE wants to provide support to KDFWR every time they plan on disturbing a portion of the WMA that is fine, as long as it doesn't take two months to get someone out after they are contacted. Lee asked if Kreher is looking for a written agreement from DOE. Kreher said he does not have a perfect solution.

Radiation Health Branch

Brock said the Radiation Health Branch is involved with the walkover survey. Soil and gravel samples have been taken in addition to the smears of concrete.

Public Comments

Vander Boegh said he has initiated a citizen's investigation into the soil piles. A flyover survey was conducted in 2000 indicating some hot spots and another flyover survey is planned. The flyover survey will not detect anything six inches below the surface. It will not show four or five feet down but will pick up the radiological hits from the groundwater where the piles are located.

Vander Boegh said the CAB is set up to represent public issues and the community wants someone to listen. Mayes said the public has the opportunity to have input at every CAB meeting but the CAB has a limited scope and he has been asked to ensure the public sticks to that scope.

Scott, former Paducah Gaseous Diffusion Plant (PGDP) worker, said he had written a letter to the editor of the Paducah Sun regarding the Worker Compensation Program. (Attachment 1) His father had multiple illnesses from exposure to numerous things at the PGDP and his family has been turned down many times by this program and hopes that a congressional hearing will be conducted on this issue.

Lahndorff, former PGDP worker, said she understands that the Worker Compensation Program is not part of the CAB's scope because the program is administered by the Department of Labor, but DOE created the worker compensation dose reconstruction, on which the compensation is based. Sick workers are being denied compensation due to their dose reconstruction of their exposure to highly radioactive elements. She said there is no way to accurately guesstimate the amount of exposure any one worker contacted during their work history at the PGDP due to improperly recorded or lack of records. She asked the CAB to recommend that DOE eliminate dose reconstruction as a part of the compensation program and pay those who were in a position to be exposed. Lahndorff provided a written statement to the CAB on the Worker Compensation Program. (Attachment 2)

Lahndorff requested that the CAB provide answers to the following questions regarding the cylinder wash sludge that was discussed earlier in the presentation. (1) When were the drums generated, (2) type of drums, (3) condition of the drums, (4) threat posed to current workers, and (5) are the drums currently there. Ms. Lahndorff also requested the CAB define background levels in the former Kentucky Ordinance Works (KOW), explain how background levels are determined and regarding significant levels of radioactivity found in the KOW, (1) what has been found to date, (2) has it been classified, and (3) what has been done with that material.

Russell said the CAB has a very specific and limited mandate and the CAB has no standing with regard to the Worker Compensation Program or the Worker Protection Program. He said he is very sympathetic with the public but he as well as the other CAB members are unable to comment on either of the worker programs. The CAB does not want to limit the public to speak in any way but the CAB is limited very strongly by their mandate. Ms. Lahndorff said she doesn't expect the CAB to be able to do anything specific to help the sick workers but this was a chance for their voices to be heard. Scott said he also does not expect the CAB to be able to help the workers but it was the first time former workers could voice their concerns on tape. Mayes said the public has the opportunity to have input at every CAB meeting but the CAB has no control or authority over the worker programs. Lee asked who has the authority. Russell said the Department of Labor. Lahndorff said she has been turned down numerous times with the Department of Labor due to dose reconstruction.

Administrative Issues

Motions

Burnett presented a recommendation to DOE regarding public participation in waste disposal option decisions. The CAB recommends that DOE incorporate the following considerations into its plan for public involvement:

- Anticipated timeline for the project including public input periods
- Materials to educate the public on the community impacts of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) cell. These should include the benefits, concerns, and consequences for both on-site and off-site disposal and alternatives to the CERCLA cell.
- Clearly defined goals and expectations for each CERCLA Process Step of the public involvement process
- Broad based communication tools (newspaper, radio, and electronic media) for public outreach. Utilize existing databases to mail public meeting notices to local community.
- Glossary to explain acronyms and technical terms specific to the waste disposal alternatives to be provided at pubic outreach activities (i.e. on-site, off-site, Subtitle C Landfill, Subtitle D Landfill).
- Detailed waste cell siting maps and a 3-D model for public meetings.
- Update the plan as the public involvement process evolves.

The Board approved the modified recommendation.

Clayton presented a recommendation regarding creation of a Lay Down Yard for recyclable metals. Knerr said designating an area or areas for recyclable metals is worth pursuing and suggested that the CAB consider some language supporting the use of Paducah Area Community Reuse Organization as a mechanism for accessing non-contaminated scrap metal that comes out of non-rad areas. The agreement primarily focuses on equipment but may look at recyclable materials. That information will be provided to the CAB.

Smart was concerned that a Lay Down Yard would turn into a another Solid Waste Management Area that would have to be remediated. Russell suggested designating a Recycling Coordinator to identify and achieve goals for recycling. Knerr said contractually the subcontractors identify cost effective ways of dispositioning materials and that includes evaluating whether the materials should be recycled. DOE does routinely discuss efforts for good stewardship to the tax payer dollar and to the environment by recycling. The difficulty is that most of the time it is more expensive to recycle materials that are radiologically contaminated. Russell will draft a recommendation emphasizing the Board's position on recyclable materials as a whole and incorporate the Lay Down Yard recommendation into the broader recommendation.

Clayton said the recommendation on Goals for Public Participation in Waste Disposal Option Decisions was distributed via email to the CAB for comment. Assistant Secretary James Rispoli requested at the Spring 2008 Chair's Meeting that local boards take a closer look at how DOE communicates with the public and this recommendation addresses that request. This recommendation will be reviewed at the Executive Committee meeting.

June Working Session

The proposed June Working Session agenda includes an update on TCE degradation and the Waste Disposal Options Public Outreach Plan. A training session on the Data Warehouse will follow the working session. Other suggestions were an update on the monthly Senior Managers Meeting and a briefing on the Flyover and Walkover Radiological Survey Work Plans. The agenda will be finalized at the Executive Committee meeting.

Annual Planning Retreat

Knerr suggested holding the Annual Planning Retreat in Oak Ridge along with a tour of the CERCLA cell and the American Museum of Science and Energy and interaction with the Oak Ridge CAB. The staff will poll the Board for a date for the retreat and for interest in holding the retreat in Oak Ridge, having an on-site meeting or having an off-site meeting near Paducah.

The meeting adjourned at 8:45 p.m.

Progress at the Paducah Project

Update to the

Paducah Citizens Advisory Board

May 15, 2008

Purpose of Presentation

- Program successes
- Main topics
  - April site walkdown
  - Site Treatment Plan
- Working session updates

D&D - West End Smelter

- Demolition completed April 30
- D1 Removal Action Completion Report due June 3

Above, a video from the demolition.

D&D - West End Smelter

- ~20,000 ft^3 of debris generated
  - More than 70% disposed of in U-Landfill
  - Remainder sent for treatment or disposal to various sites

The C-746-A West End Smelter before and after demolition.

April Site Walkdown

- In April, KDWM met with former workers to visit areas where they said debris (e.g., soil, rubble) from past plant operations was located
- Determination must be made if the material came from past plant operations or other sources and if it is contaminated
- PRS provided radiological survey support
- DOE and Kentucky doing a further evaluation of those areas

One of the areas where material was used along a now closed road northeast of the plant.

April Site Walkdown

This material was placed along a creek bank near the plant for erosion control.

April Site Walkdown

This debris as used just north of the plant to shore up a creek bank.

April Site Walkdown – Continuing Actions

- Complete a sitewide radiological survey
- Complete a radiological flyover
- Complete a topographical survey
- Compile information and develop a work plan to characterize additional areas as needed

This construction debris was used along a creek in the Ballard Wildlife Management Area.

Legacy Waste Disposition – STP Milestone

- Site Treatment Plan establishes enforceable milestones for the treatment of mixed low-level wastes
  - Newly generated wastes not dispositioned within one year are added to the STP
- Most recent milestone (January 31, 2008) was for disposition of ~390 containers, ~6,000 ft^3
- Milestone extended to 4/30/08
  - Less than 10 percent of the milestone waste remained in inventory on January 31, 2008
  - 492 ft^3 dispositioned before April 30

Legacy Waste Removal – STP Milestone

- DOE has requested a second extension to 5/31/09 to evaluate ~85 ft^3 (11 drums) of material for potential recovery
- This material is “cylinder wash sludge,” which contains a high concentration of uranium
- Kentucky has given tentative approval to the extension request

Legacy Waste Removal – STP Milestone

- Steps to evaluate reclamation
  - Determine the radionuclide content
  - Issue an Expression of Interest to determine market interest
  - Obtain quotes from vendors
  - Perform a cost benefit analysis, reclamation vs. disposition
- If analysis shows reclamation is a viable alternative, the material will be reclaimed
  - DOE will evaluate if an existing contract in place in Portsmouth can be used for uranium reclamation in Paducah
- If reclamation is not viable, the material will be dispositioned

Groundwater – TCE Degradation

- KRCEE completing second phase of 4-phase project; now initiating third phase
  - Phase I – Historical site data evaluation
  - Phase II – Aerobic biodegradation evaluation
  - Phase III – Stable Carbon Isotope (SCI) investigation
  - Phase IV – Abiotic degradation investigation
- Phase II status
  - Completed
    - Geochemical sampling
    - Enzyme activity probe sampling and analysis
    - Investigation of well biofouling
  - Reports in preparation
    - "Enzyme Activity Probe Analysis & Geochemical Report" (May 15)
    - White Paper and recommendations for future study (May 16)
  - Preliminary Assessment – Microbes that produce enzymes that degrade TCE are active in the RGA
- More detail will be provided in a working session

CERCLA 5-Year Review

- Report evaluates effectiveness of environmental cleanup actions
- Required every 5 years, beginning with the first Record of Decision at a site (Paducah's 1st - Northwest Pump-and-Treat, 1993)
- 2008 report is now being written
- Due to Kentucky and EPA 9/30/08
- Draft list of response actions being evaluated include these:
  - Northwest Pump-and-Treat
  - Northeast Pump-and-Treat
  - C-746-K Landfill
  - North-South Diversion Ditch
  - C-749 Burial Ground
  - C-405 Incinerator
  - C-400 Electrical Resistance Heating
  - C-410 Infrastructure Removal
  - Lasagna™
  - Fire Training Area
  - C-402 Lime House
  - West End Smelter

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Portsmouth/Paducah Project Office

Paducah Project Updates

Prepared for the PGDP Citizens Advisory Board

May 2008

EM Environmental Management

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Paducah Project Update

Burial Grounds Operable Unit

(May 2008)

Project Scope

The scope for the Burial Grounds Operable Unit (BGOU) includes a Remedial Investigation (RI), Feasibility Study (FS), baseline risk assessment, evaluation of remedial alternatives, remedy selection, and implementation of actions, as necessary, for protection of human health and the environment.

The material in the burial grounds includes hazardous radioactive and pyropohoric wastes.

For a list of the burial grounds included in the unit, see the map on the reverse side.

The C-404 Burial Ground began as a holding pond, then became a low-level waste disposal area.

Key Milestones Accomplished

- RI sample borings completed
- RI/FS Work Plan complete

Background:

An RI/FS Scoping Document and Work Plan have been developed utilizing information collected on and around PGDP over the course of the last 10 years. The BGOU includes Solid Waste Management Units (SWMUs) 2, 3, 4, 5, 6, 7, 30, and 145. Sample borings drilled for the RI/FS Work Plan are complete.

Upcoming Work

Work planned in next 60 days:

- Submit RI Report to Kentucky and EPA

Documents Scheduled (D1 versions)

RI/FS Work Plan → Remedial Investigation → RI Report (Jul '08) → Feasibility Study (Feb '09) → Proposed Plan (Sep '09) → Record of Decision (Aug '11) → Remedial Action (April '19) → Remedial Action Completion Report (Jan '20)

EM Environmental Management

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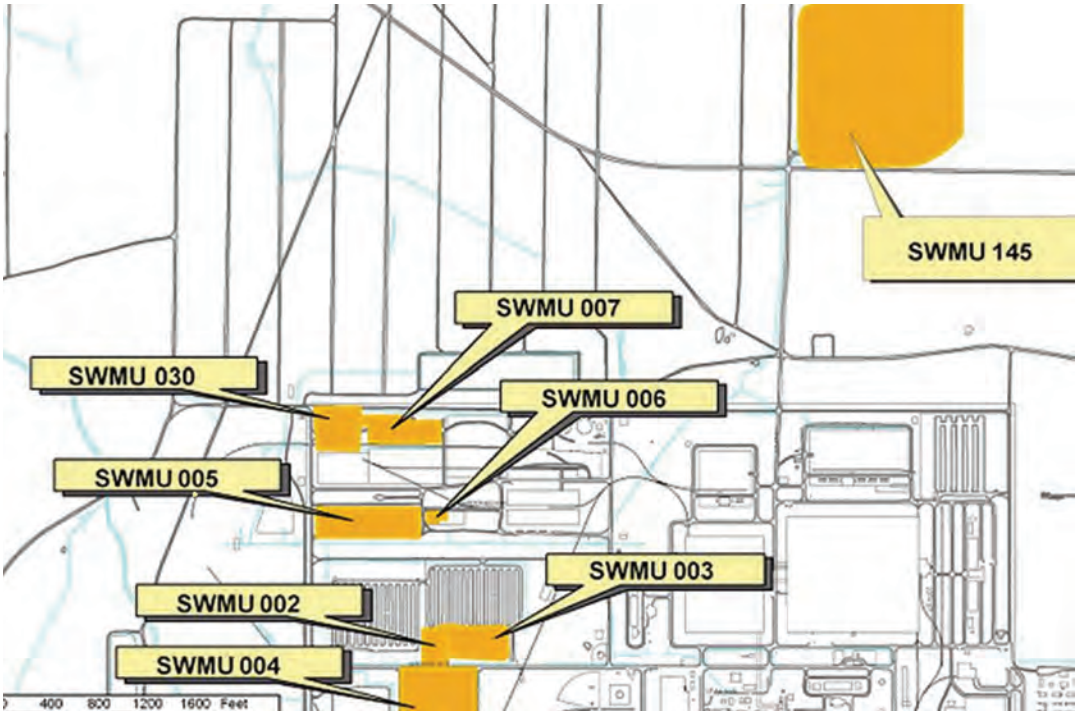
Contacts:
DOE: Jeff Snook
PRS: Tracey Brindley/Karen Holland
Kentucky: Ed Winner/Brian Begley
U.S. EPA: Turpin Ballard

Next Document:
Remedial Investigation Report for the Burial Grounds Operable Unit, D1 due July 25, 2008.

The C-404 Burial Ground (SWMU 3) as it appears today.



This map shows the SWMUs included in the BGOU.

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Paducah Project Update

Legacy Waste Disposition

(May 2008)

Project Scope

DOE is responsible for dispositioning and/or recycling 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, nonhazardous and nonradioactive wastes are disposed of in the DOE Solid Waste Contained Landfill. *(See C-746-U Landfill fact 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.

Nearly two-thirds of the about 572,000 ft^3 of legacy waste once stored at the site has been removed. The project is scheduled to be completed in late 2009.

Above, the C-746-B storage facility is shown before and after recent shipments. Part of the disposal effort included 45 shipments of PCB-contaminated debris removed.

EM Environmental Management

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Contacts:
DOE: Rob Seifert
PRS: Matt LaBarge/Greg Shaia
Kentucky: Ed Winner
U.S. EPA: Turpin Ballard

Next Document:

Site Treatment Plan Quarterly Report, July 31, 2008

FFA Milestones

- Wastes listed on Site Treatment Plan Tables 7.1, 7.2, 7.3, and 8 have been dispositioned with the exception of "cylinder wash sludge" that is being evaluated for reuse.

Recent Accomplishments

- Completed disposition of STP Milestone wastes except for 3 m^3 of cylinder wash sludge that may have reuse potential.

Above, waste is loaded onto a truck for off-site disposal; right a container of the cylinder wash sludge that is being evaluated for reuse potential. The material contains U-235.

Upcoming work

Work planned in next 60 days:

- Treat and discharge wastewater
- Continue disposal of legacy waste

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Paducah Project Update
Surface Water Operable Unit

(May 2008)

Project Scope

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.

Project documents that have been submitted to regulators include a Site Investigation and Baseline Risk Assessment Report and a Non-Time-Critical Removal Notification. These will be followed by an Engineering Evaluation/Cost Analysis, Action Memorandum, and Removal Action Work Plan.

Project deadlines are specified in the Federal Facility Agreement (FFA), which is an agreement among DOE, Kentucky, and the EPA that controls cleanup at Paducah.

Outfall 15 is one of the areas where DOE is evaluating an action to remove contamination "hot spots."

Upcoming work

Work planned in next 60 days:

- Complete the D1 Action Memo

FFA Milestones

The regulatory milestone for the Action Memorandum has been extended to September 24, 2008. The Removal Action Work Plan milestone is now January 2009.

Key Milestones Accomplished

Issued the D1 Engineering Evaluation/Cost Analysis issued to Kentucky and EPA on 2/10/08
Site Investigation and Baseline Risk Assessment approved February 2008

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Contacts:
DOE: David Dollins
PRS: Tracey Brindley/Craig Jones/Jana White
Kentucky: Ed Winner
U.S. EPA: Jennifer Tufts

Next Document:
D2 EE/CA, June 12, 2008

Included in the scope of the "hot spot" evaluation are portions of the North-South Diversion Ditch located outside the plant security fence. Portions inside the fence previously were remediated.

Documents Scheduled (D1 versions)

SI Work Plan → Site Investigation → SI/RA Report → EE/CA → Action Memo (Sept '08) → Removal Action Work Plan (Jan '09) → Removal Action (June '09) → Removal Action Completion Report (August '10)

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Paducah Project Update
Groundwater Operable Unit

(May 2008)

Project Scope

This project addresses environmental remediation of groundwater contamination on a sitewide basis at PGDP.

The main contaminants of concern are trichloroethene (TCE) and technetium-99 (Tc-99). The contaminants are present in three "plumes": Northeast, Northwest, and Southwest.

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

Specific projects include these:

- **Northeast and Northwest Plumes Pump and Treat -** Treatment systems that extract contaminated groundwater from the Northwest and Northeast Plumes and return it to beneficial use
- **Southwest Plume -** A decision on addressing contamination for the third plume is being developed *(see reverse side for more detail)*
- **C-400 Interim Remedial Action -** In late 2008, operation begins of a system that will significantly reduce the amount of TCE under the surface at the major source of off-site contamination
- **Dissolved-Phase Plumes Remedy -** DOE has begun the process of determining the best long-term solution for off-site contamination

Overhead power lines are run to the area where a treatment system is to begin extracting TCE from beneath the surface and significantly reduce the site's largest source of off-site contamination.

Upcoming Work

Work planned in next 60 days:

- Obtain regulatory comments on the D2 C-400 Design Report and Land Use Control Implementation Plan
- Submit D2 Work Plan for Kentucky and EPA review May 27, 2008
- Begin preparation of the Southwest Plume Focused Feasibility Study

Key Milestones Accomplished

- D2 C-400 Source Reduction design submitted February 2008
- D2 Land Use Control Implementation Plan submitted February 2008

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Contacts:
DOE: David Dollins
PRS: Mike Clark/Bryan Clayton
Kentucky: Edward Winner
U.S. EPA: Turpin Ballard

Next Document:
D2 Work Plan for the C-400 Source Reduction Action, May 27, 2008

Power to the C-400 treatment system will be supplied by both overhead and underground transmission lines.

C-400 Documents Scheduled (D1 versions)

Remedial Investigation → GWOU Feasibility Study → Treatability Study → Proposed Plan → Record of Decision → Remedial Design Work Plan → ■ Remedial Design Report ■ LUCIP ■ Remedial Action Work Plan (Mar '08) → Remedial Action (2008-2009) → Remedial Action Completion Report (Oct '10)

Southwest Plume Documents Scheduled

Site Investigation → Feasibility Study (Dec '08) → Proposed Plan → Record of Decision (Feb '10) → Remedial Design Work Plan → ■ Remedial Design Report ■ LUCIP ■ Remedial Action Work Plan → Remedial Action → Remedial Action Completion Report (2014)

Dissolved-Phase Plume Documents Scheduled

Previous Remedial Investigation → TCE Degradation Analysis → Natural Attenuation Report → Treatability Study → Proposed Plan → Record of Decision (2011) → Remedial Action Work Plan → Remedial Action Completion Report

Portsmouth/Paducah Project Office
DOE Project Manager - David Dollins (270) 441-6819, dave.dollins@lex.doe.gov

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Portsmouth/Paducah Project Office

Paducah Project Update

D&D Operable Unit

(May 2008)

Project Scope

The scope of this project includes decontamination and decommissioning of inactive PGDP facilities that have no reuse potential. To date, 20 facilities have been designated for removal and 10 of those have been removed.

Major projects within the scope of the D&D project include the following:

- Infrastructure (piping, equipment, and material) removal and demolition of the C-410/C-411/C-420 Feed Plant Complex (ongoing)
- Infrastructure removal and demolition of the C-340 Metals Plant (planned)
- Surveillance and maintenance of the C-340 Metals Reduction Facility (ongoing)
- Demolition of inactive facilities, including the C-746-A West End Smelter (ongoing); the C-342 Ammonia Facility (planned for 2008); and the C-611-M and N Sanitary Water Storage Tanks (planned for 2009)

A worker sorts and segregates the contents of a drum stored inside the C-410 Complex.

Current Status - West End Smelter Removal

The C-746-A West End Smelter was built as a storage facility in the early 1950s. Two furnaces later were added for smelting metals, including gold, nickel, and aluminum. The facility continued operation through the 1970s.

The structure was demolished in April 2008. Prior to demolition, loose material, debris, equipment, furnaces, and interior offices had to be removed.

New Documentation Process

Work is continuing on a proposed new process for comprehensive D&D Removal Action documentation. The proposed new process will streamline gaining regulatory approval prior to implementing D&D activities. The process will save time and money now spent on writing regulatory documents. Similar processes are used at other DOE sites. DOE, Kentucky, and EPA are meeting to discuss the proposal.

FFA Milestones

Removal Action Completion Reports for Incinerator and West End Smelter, 2008; complete C-410/C-411/C-420 Feed Plant, C-340 Metals Plant,and inactive facilities demolition by September 30, 2017.

Key Milestones Accomplished

- Removed C-410 HF Tank Farm
- Removed Hydrogen Holder Tank
- Removed C-603 Nitrogen Complex
- Removed C-402 Lime House
- Removed C-405 Incinerator
- Removed C-746 West End Smelter

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Current Status - C-410 Complex D&D

The C-410 Feed Plant Complex consists of nine facilities covering nearly 200,000 ft^2. It was built in 1955 to convert reactor returns from other DOE facilities to uranium hexafluoride.

The facility, which is contaminated with various radionuclides, operated until 1977.

D&D work involves three phases that must be completed before structural demolition can begin. These phases overlap. The phases are as follows:

1. Removal of pipes, wiring, loose equipment, and debris - Work continues to dispose of loose material once stored inside the facility.

2. Asbestos abatement - More than five miles of asbestos insulation was used inside the complex. Removal work is underway and will be completed in 2009.

3. Removal of installed equipment and potentially hazardous chemical residue inside the old process equipment - This phase begins in 2008. Building demolition is scheduled to begin by 2012.

Left, workers remove the roof of the West End Smelter; below right, stanchions are installed to support a water line leading to a sprinkler system in an adjacent building; below left, the site after the smelter was demolished.

Contacts:
DOE: Rob Seifert
PRS: Don Ulrich/Brad Montgomery
Kentucky: Brian Begley
U.S. EPA: Turpin Ballard

U.S. Department of Energy

Portsmouth/Paducah Project Office

Paducah Project Update

DOE Material Storage Areas

(May 2008)

Project Scope

The 160 DMSAs are nonleased 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 Nuclear Regulatory Commission certification of the plant.

At that time, most of the contents needed detailed inventory, characterization, and disposition.

Since then, DOE and its contractors have been documenting contents; resolving environmental concerns such as draining and disposing of oils from old equipment; and segregating and disposing of wastes.

The DMSAs initially contained more than 800,000 ft^3 of material that needed characterization and about 600,000 ft^3 of material that needed dispositioning.

Drums of waste are loaded onto a pallet for shipment.

A worker labels asbestos samples.

Upcoming work

Work planned in next 60 days:

- Continued characterization and packaging of DMSA materials in C-335, C-400, C-337, and C-310

Milestones

Complete characterization of Priority "C" DMSAs by 9/30/09

Key Accomplishments

- Completed characterization of Priority "A" DMSAs by 9/30/2004
- Completed characterization of Priority "B" DMSAs by 9/30/2006
- 60 DMSAs returned to use by USEC or for common use

(NOTE: DMSAs were separated into three categories for characterization and disposition. The "A" areas were those with the greatest risk, followed by "B" and "C," depending on potential for risks to human health and the environment.)

Characterization -- 92 percent complete

Disposition -- 81 percent complete

EM Environmental Management

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Contacts:
DOE: Jeff Snook
PRS: John Samples
Kentucky: Leo Williamson
U.S. EPA: Turpin Ballard

Next Document:
Final Inventory Characterization Reports for DMSAs 334-02/06/07, May 26, 2008

Waste material from a DMSA is loaded for shipment to a disposal facility.

U.S. Department of Energy

Portsmouth/Paducah Project Office

Paducah Project Update

Soils Operable Unit

(May 2008)

Project Scope

The short-term objectives of the Soils Operable Unit include evaluation of newly identified areas of possible contamination and the removal of three inactive facilities where soil contamination is present. These are the facilities:

- C-218 Firing Range
- C-403 Neutralization Pit
- C-410-B Sludge Lagoon

Planning for the removal of the facilities has begun and the first phase of sampling for the soil and rubble pile areas has been completed.

Long-term, the project includes an Remedial Investigation to identify any soils contaminated with PCBs or radioactivity. That will lead to a 2012 ROD and a Removal Action for contaminated soils above action levels. That action will be completed by 2016.

The C-403 Neutralization Pit is one of three inactive facilities with soil contamination included in the Soils Operable Unit.

Upcoming Work

Work planned in next 60 days:

- Gain approval of Engineering Evaluation/Cost Analysis for the three Inactive Facilities
- Soil Pile "I" Site Investigation Report, due to KY and EPA, June 5, 2008
- Issue the Rubble Pile Sampling and Analysis Plan for regulatory approval, May 17, 2008
- Obtain regulatory approval of SAP Addendum 1B (soil areas along Little Bayou Creek) and Addendum 2 (soil piles along Bayou Creek)
- Begin mobilizing for field work; date depends on regulatory approval

Recent Accomplishments

- Issued the D1 Engineering Evaluation/Cost Analysis for the three Inactive Facilities on March 24, 2008
- EPA and Kentucky have approved Sampling and Analysis Plan 1A for the soil piles

FFA Milestones

- 4th quarter, 2011 – D1 Removal Decision Document
- 3rd quarter 2012 – D1 ROD
- September 30, 2015 – D1 Remedial Action Completion Report

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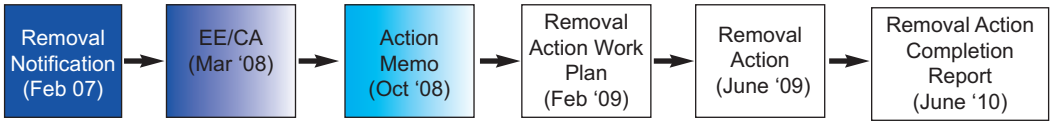
Contacts:
DOE: David Dollins/Rick Bonczek
PRS: Tracey Brindley/Craig Jones
Kentucky: Ed Winner
U.S. EPA: Turpin Ballard

Next Document:
Soil Areas - Soil Pile "I" Site Investigation Report, June 5, 2008
Inactive Facilities - D2 EE/CA, June 22, 2008

Above, sampling one of the Soil Pile areas along Little Bayou Creek; above right, the C-410B Sludge Pit; below right, the C-218 Firing Range.

Documents Scheduled (D1 versions)



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U.S. Department of Energy

Portsmouth/Paducah Project Office

Paducah Project Update

C-746-U Contained Landfill

(May 2008)

Project Scope

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.

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 nonhazardous soil and debris from DOE projects, such as protective clothing worn by workers, paper, packaging, and landfill office wastes.

No material classified as hazardous waste or low-level radioactive waste is accepted.

The C-746-U Contained Landfill receives soil and debris produced by operations at the Paducah Gaseous Diffusion Plant.

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

Contacts:
DOE: Jeff Snook
PRS: Paul Corpstein/Matt LaBarge/ Paul Gagnon
Kentucky: Todd Hendricks
U.S. EPA: Turpin Ballard

Recent Work

Continued accepting waste and debris from DOE and USEC operations; treated and discharged leachate.

EM Environmental Management
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Portsmouth/Paducah Project Office

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U.S. Department of Energy

Portsmouth/Paducah Project Office

Paducah Project Update

Waste Disposal Options Evaluation

(May 2008)

Project Scope

DOE is evaluating waste management options for the disposal of wastes generated at PGDP from CERCLA response actions and PDGP D&D.

The intent of this evaluation will be to support a comprehensive sitewide decision for the disposal of hazardous,low-level radioactive, and mixed waste resulting from CERCLA response actions at PGDP and PDGP D&D.

Waste disposal action alternatives that will be evaluated in the RI/FS are expected to include off-site and on-site disposal and combinations of these alternatives.

The waste disposal options will be considered by following the Remedial Investigation/Feasibility Study (RI/FS) evaluation and decision documentation process required by CERCLA.

DOE has sought early public input in the evaluation process.

Background

An estimated 3.7 million yd^3 of waste will be generated during CERCLA response actions. In order to more effectively manage these wastes, a sitewide waste management strategy is being examined to determine a reliable protective solution for the disposal of those wastes.

The CERCLA RI/FS process will be used to identify and evaluate waste management alternatives.

By following the CERCLA decision and documentation process, documents prepared after the scoping document will include an RI/FS work plan, RI/FS report, Proposed Plan, and Record of Decision.

Key Milestones Accomplished

- Issued D1 Scoping Document April 7, 2008

Upcoming work

Work planned in next 60 days:

- Conduct a series of conference calls to prepare for a Scoping Meeting with Kentucky and EPA
- Conduct the Scoping Meeting in mid-June

Contacts:
DOE: Jeff Snook
PRS: Fraser Johnstone
Kentucky: Ed Winner
U.S. EPA: Turpin Ballard

Next Document:
RI/FS Work Plan,
November 18, 2008

Documents Scheduled (D1 versions)

Scoping Document (Apr '08) → RI/FS Work Plan (Nov '08) → RI/FS Report (July '09) → Proposed Plan (Feb '10) → Record of Decision (Oct '10)

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