



April 21, 2011

Chair
Judy Clayton

Vice-Chair
Ralph Young

Board Members
John Anderson
Robert Coleman
David M. Franklin
Jonathan Hines
Mike Kemp
Shirley Lanier
Maggie Morgan
Kevin L. Murphy
Dianne O'Brien
Ben Peterson
Elton Priddy
Ronnie Rathman
Alex Roman
Mark Sullivan
May Louise Zumwalt

Student Participant
R. Colby Davis

Board Liaisons
Reinhard Knerr
DOE DDFO

Buz Smith
DOE Federal Coordinator

Ed Winner
*Division of Waste
Management*

Turpin Ballard
*Environmental Protection
Agency*

Mike Hardin
Fish and Wildlife Resources

Stephanie Brock
Radiation Health Branch

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Agenda for the added April Board Meeting

6:00

Call to order, introductions
Review of agenda

DDFO's Comments

-- 10 minutes

Federal Coordinator Comments

-- 5 minutes

Liaison Comments

-- 5 minutes

Administrative Issues

-- 60 minutes

- Recommendation 11-02, CAB Comments on Focused Feasibility for SMWU-1
- Recommendation 11-06, CAB Comments on Focused Feasibility for SMWU-211 A and 211B
- Recommendation 11-03, Inclusion of Work for Others Information in Oral Histories
- Recommendation 11-04, Paducah CAB's Vision for Preserving Artifacts
- Recommendation 11-05, Classified Oral Histories Program
- Review Work Plan and discussion on Path Forward

Public Comments

-- 15 minutes

Final Comments

-- 5 minutes

Adjourn



PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes April 21, 2011

The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on Thursday, April 21st at 6:00 p.m.

Board members present: Judy Clayton, Chair; Ralph Young, Vice-Chair; John Anderson; David Franklin; Jonathan Hines; Mike Kemp; Kevin L. Murphy; Dianne O'Brien; Ben Peterson; Elton Priddy; Shirley Lanier

Board members absent: Robert Coleman; Alex Roman; Ronnie Rathman; May Louise Zumwalt; Mark Sullivan; Maggie Morgan

Student Participant: Colby Davis

Board Liaisons and related regulatory agency employees: Gaye Brewer; Kentucky Department of Waste Management (KDWM)

DOE Deputy Designated Federal Official: Reinhard Knerr

DOE Federal Coordinator: Buz Smith

U.S. Department of Energy (DOE) related employees: Scott Smith, Swift & Staley (SST); Eric Roberts, Lauren DeFazio, EHI Consultants (EHI); Greg Felts

Public: Gary Vander Boegh; Richard Shepherd

Introductions

CAB Chair, Clayton called the meeting to order at 6:00 p.m. **Clayton** thanked everyone for attendance and for allowing the meeting to be a full board meeting instead of a subcommittee meeting. **Clayton** stated fifteen minutes are allotted for public comment and that members of the public must sign in to speak, a portion of that would be for comments on the recommendations and the remainder would be for public comment. **Clayton** introduced new staff member, **DeFazio**. **Clayton** called for round-table introductions.

Clayton asked members to review April 21 agenda. **Young** requested a discussion on the Eco-Fair dates being changed. **Clayton** allotted 5 minutes for Eco-Fair under Administrative Issues prior to recommendations. **Clayton** moved that the agenda be approved with a modification to add the Eco-Fair. The motion was seconded by **Hines**.

MOTION APPROVED

Deputy Designated Federal Official Comments

Knerr presented project updates to the Board. All presentations are available on the CAB Website at www.pgdpcab.energy.gov

DOE Federal Coordinator Comments

None

Liaison Comments

None

Administrative Issues

- **Eco-Fair**

Young stated the dates for Eco-Fair have changed to May 18th and 19th due to the schools testing the original week. The event will run from approximately 9 a.m. to 2 p.m. both days for 6th graders at the Wildlife Management Center on site. Points of Contact are Jim Etheridge and Tim Kreher. They currently have 5 learning stations and lunches will be provided for the students. Volunteers are needed. **Young** asked for any further questions before moving to the recommendations.

Clayton transferred facilitation to **Young**, to allow her to present during the Administrative issues.

Young turned the floor over to **Kemp** for presenting the findings of the Ad Hoc Southwest Plume committee for Recommendation 11-02. All presentations are available on www.pgdpcab.energy.gov

- **11-02 CAB Comments on Focused Feasibility for Solid Waste Management Unit 1**

The CAB recommends that DOE pursue negotiations with EPA and DWM to implement in-situ bioremediation at the oil land farm. To support these recommendations, the CAB recommends that DOE provide a more detailed explanation of how in-situ bioremediation will be implemented that clearly demonstrates why the soil and geological characteristics will not be an issue. The explanation should differentiate why these same soil and geological characteristics are an issue for the alternatives that were screened out on that basis.

<p>Brewer: Did the CAB talk with the EPA as to why they did not like the bio alternative? I suggest speaking with the EPA, as they are available to us as a resource, before making recommendations without hearing the logic behind the decisions. I strongly urge the CAB to hear both sides.</p>	<p>Kemp: We only had the information available to us in the feasibility study.</p>
<p>Young: At this point, do you think we should modify our recommendation?</p>	<p>Peterson: I think he did an excellent job describing the position the Ad Hoc committee is in based on the information that was available to us. All we are asking is for DOE to further explain the differences and what works. We are suggesting the DOE differentiate why one works one place and not another.</p>

Vander Boegh: What does TCE degrade down to?	Brewer: It degrades all the way down to non-hazardous material.
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Young called for a vote on the motion on the table. By show of hands, vote of 10 out of 11, 1 abstained, the recommendation is adopted.

MOTION APPROVED

Kemp presented Recommendation 11-06. All presentations are available on www.pgdpceb.energy.gov

- **11-06 CAB Comments on Focused Feasibility for Solid Waste Management Units 211A and 211B**

The CAB recommends that DOE negotiate with EPA and DWM to determine what additional sampling might be beneficial to determine if DNAPL is present. Although additional sampling would result in an implementation delay, the extra time is trivial compared with the overall estimated time of completion for either alternative. The additional costs are relatively low when considering the additional cost of the more aggressive remedial action.

Murphy: When and how much sampling was done initially?	Knerr: It was not very much. It was several years ago. Brewer: It was in probably 2004, and they punched a few holes in the ground in each location.
Murphy: How many acres are we talking about?	Brewer: Not acres, just the spills sites.
Murphy: How many gallons?	Knerr: The estimates are 10 gallons in each of the 720 areas and approximately 50 gallons at the Oil Land Farm. There is some uncertainty, which is part of the concern on whether or not to do long term monitoring or to take a more active approach to that area.. Brewer: The 720 building is a maintenance building, so they were maintenance spills.
Vander Boegh: The 720 building is where you estimated 10 gallons were spilled. Who made that estimate?	Knerr: I'm not sure. It was most likely a combination of historical records from a spill, probably combined with the amounts from the soil sampling.

Young called for any further comments regarding this recommendation.

Vander Boegh stated that he worked at the plant. Behind the 720 building, I have several employees that I represent that state that was a dump site. I want to double check that, because years ago, I put together the map of proposed dump sites according to the employees. So I want to make sure I am hearing the locations correctly. Many sources say there is in fact DNAPL in these locations.

Peterson replied that we are just asking to do more testing, to see if there is DNAPL there, also to work with the EPA to come up with a solution.

Young called for a vote on the motion on the table. By unanimous vote, the recommendation is adopted.

MOTION APPROVED

Clayton took the floor to present Recommendation 11-03. All presentations are available on www.pgdpcab.energy.gov

- **11-03 Inclusion of Work for Others Information in Oral Histories Video and Historical Document**

In an effort to capture valuable oral histories without compromising classified information, the CAB respectfully requests that:

Information regarding Work for Others Program projects done at the PGDP, particularly space exploration projects, should be considered for declassification and release to the general public, providing national security concerns no longer exist.

In the long term, DOE conduct a classification study on the Work for Others Program accomplished at the PGDP in an effort to declassify information regarding work which was done that no longer jeopardizes national security.

Young asked for questions or comments regarding this recommendation from board members. No comments were made.

Young called for a vote on the motion on the table. By unanimous vote, the recommendation is adopted.

MOTION APPROVED

Peterson presented Recommendation 11-04. All presentations are available on www.pgdpcab.energy.gov

- **11-04 Paducah CAB's Vision for Preserving Artifacts**

As plans are being made to develop a center in which to permanently preserve and display artifacts and memorabilia from the PGDP, the Paducah CAB respectfully requests that the DOE:

Store historical artifacts identified and collected in such a manner to ensure that they are protected from the elements and vermin until such a time as a permanent commemorative structure can be created.

Young asked for questions or comments regarding this recommendation from board members. No comments were made.

Young called for a vote on the motion on the table. By unanimous vote, the recommendation is adopted.

MOTION APPROVED

Clayton presented Recommendation 11-05. All presentations are available on www.pgdpcab.energy.gov

- **11-05 The Paducah CAB respectfully requests that DOE:**

Begin a classified oral histories program that can be maintained in a classified records system to be preserved until such as time as it is no longer deemed a national security concern. Information garnered from these individuals may also help DOE in the decontamination and demolishing of the PGDP, particularly burial grounds.

Young asked for questions or comments regarding this recommendation from board members. No comments were made.

Young called for a vote on the motion on the table. By unanimous vote, the recommendation is adopted.

MOTION APPROVED

Young opens the floor to **Roberts** to discuss remaining calendar of events for 2011.

Roberts proposed to swap even and odd months for Board and Sub Committee meetings to allow the CAB to respond to Federal Budget deadlines. **Roberts** also proposed to move the Work Plan Meeting from October to June, and the location from Nashville to Louisville. By staying in Kentucky it allows Bill Murphie and Secretary Lynn Peters to get involved in the Work Plan Meeting.

Roberts proposed a vote to switch meeting months. There was no opposition. Motion passed. More information regarding the Work Plan Meeting will sent out via email.

Young open the floor for Public Comments. Six minutes have been used already, leaving 9 minutes to those signed in.

Public Comments

Vander Boegh stated that we brought up the nuclear fuel running to Paducah from several DOE sites. While we have workers talking with Department of Justice, I want to follow up on what Mr. Ladd said at the last meeting, and have DOE explain the exchange of information and the worker's comments in more detail about the processing going on at the plant. Perhaps they can provide the board with a bit of an initiative to ask more detailed questions, without getting into any issues that are sensitive or classified.

Last time, we discussed the use of neutron monitors in the cylinder yard, can you explain why DOE wears them but none of the workers wear them? Are any of these workers being evaluated? None of the DUF6 workers are being issued them. Why is that? Are we discussing the impact of the neutron aspect of beryllium on the workers?

Vander Boegh thanked Senator McConnell, Senator Paul and Congressman Whitfield for their presentation on April 11th. We can see a change now in how the workers are being treated.

Vander Boegh stated that his company is expanding to have a private website to do interviews with employees using confidential ID numbers, as they are familiar with the DOE ECP (Employee Concern Program).

Shepherd, stated he was an employee for 30 years, from 1968 to 1998. He thanked the CAB for what they are doing and urged the CAB to study the history closely. He has 10 years experience as an operator and 20 years as a supervisor. He said at one time a “reportable release” was 50 lbs. Therefore most instances were marked as 49 lbs or less. He stated he was glad that the CAB is trying to get an Oral history before all of the workers are dead, because there is no other way to get an accurate account of what really went on. He feels like everyone is waiting for the workers to die off so they can not report it. The community deserves to know the real story and worries that the DOE will try to bury the oral history under their security. Gary brought up the beryllium; the whole site is covered in it. He said he personally fed the beryllium into the system, and knows it went all over the site. He asked that the CAB capture the histories and get to the truth before it is too late.

O’Brien commented on her appreciation for the Oral Histories project and suggested that we look into getting the interviews on the National Historic Registry.

Young asked for any further comments. There being no further business, the meeting adjourned at 7:41 p.m.



U.S. DEPARTMENT OF
ENERGY

Paducah Cleanup Progress



DDFO Presentation

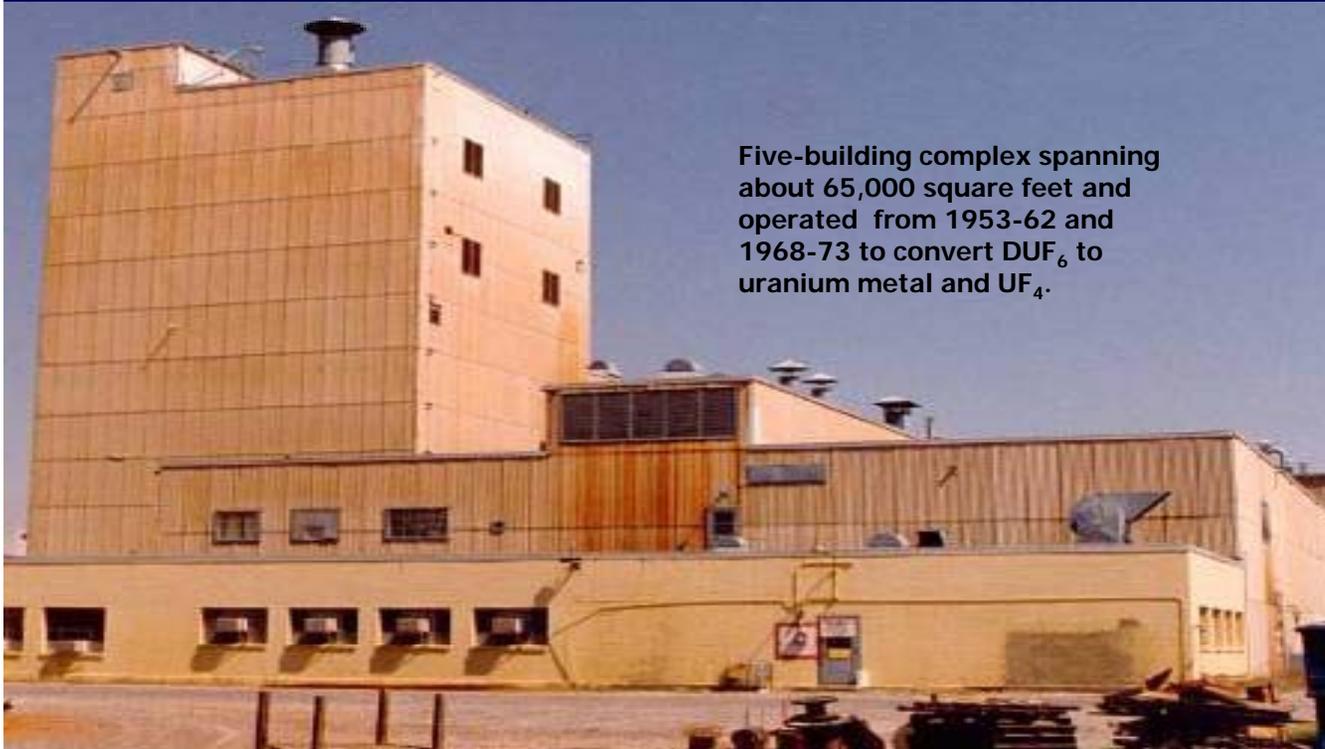
**Reinhard Knerr, Site Lead and DDFO
Paducah Citizens Advisory Board
April 21, 2011**



Presentation Agenda

- Recovery Act Projects: C-340/C-410
- C-400 Source Reduction
- Federal Facility Agreement
 - Burial Grounds Dispute
 - Waste Disposal Options
- Depleted Uranium Hexafluoride (DUF₆) Plant

C-340 Complex Update



Five-building complex spanning about 65,000 square feet and operated from 1953-62 and 1968-73 to convert DUF_6 to uranium metal and UF_4 .



An electrician reroutes power to prepare for cleanup in the C-340 shipping and receiving area.

- Two ancillary buildings demolished in 2010.
- Three remaining uranium metal process buildings being cleaned up for demolition.
- 72,600 cubic feet of systems and 11,600 cubic feet of asbestos removed.
- Overall project 79% complete.
- Remaining buildings – A, B and C – forecast to be demolition-ready by July 2011.



C-340 Complex Update



Two heavy equipment operators use a remote-control panel to steer the Brokk 400 machine's 23-foot hydraulic arm to cut away old equipment and systems in the C-340 Metals Plant.

- Remote-controlled Brokk demolition machine used to accelerate cleanup with expectation of B Building being demo-ready in spring.
- Similar equipment used at some other DOE sites but never before at Paducah.
- Brokk lessens worker fatigue and allows operators to remain a safe distance away and on the ground.

C-410 Building Activities



- 19 of 65 zones demolition-ready
- Nearly 30 percent of complex (53,860 out of total of about 200,000 square feet) demolition-ready.

Second-shift Recovery Act workers use scissor lifts and metal saws to remove the outer cover of old UF₆ process tie lines linking C-410 with other parts of the plant.



C-410 Building Activities



Second- shift
Recovery Act
workers on
scissor lifts to
remove the tie
lines at C-410

- Demolition of eastern third of building, roughly half an acre, began in mid-April.
- Disposing of Sector 4 in plant landfill will save about \$1.5 million in disposal costs.

C-410 Sector 4 Demolition

Heavy machinery begins to demolish Sector 4 of the C-410 Feed Plant during the week of April 11. C-410 is one of three cleanup and demolition projects at the Paducah Site expedited with nearly \$80 million in Recovery Act funding.



C-400 Source Reduction



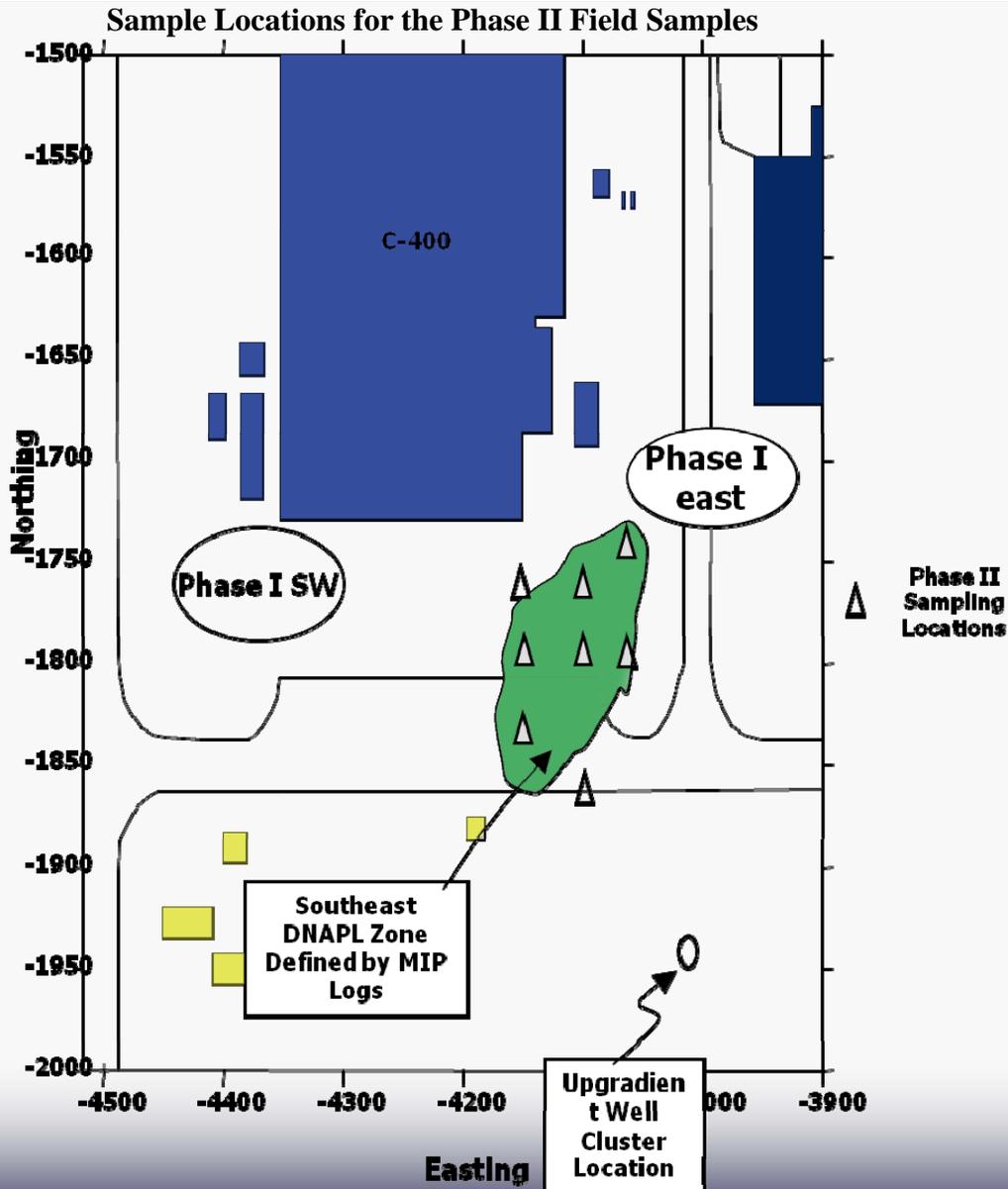
A crew samples groundwater and soil near the C-400 maintenance building to gain better information about TCE contamination in groundwater.

Phase I post-operational sampling

- Baseline and post-operational sampling will determine the percent reduction in volatile organic compound contamination in the treatment areas.
- Phase I (Southwest and East Treatment areas) post-operational sampling is nearing completion with 27 of 29 borings completed.
- Preliminary analyses indicate that percent reduction of VOC contamination confirms Interim Record of Decision goals were achieved in Phase I treatment areas (UCRS).
- Formal results should be available in June.

C-400 Source Reduction

Field Sampling Planned



Phase II Field Sampling

Purpose

- Establish greater confidence in mass and location of TCE in Southeast treatment area
- Develop predictive relationships of historical and proposed membrane interface probe (MIP) records with TCE concentrations in soil and groundwater
- Assess mass of TCE contamination

Federal Facility Agreement

Burial Grounds Dispute

- Received nonconcurrency on Feasibility Study (FS) from EPA on 1/14/11 and Kentucky on 1/31/11
- Nonconcurrency invokes dispute under FFA
- EPA/Kentucky issue: FS does not present treatment technology alternatives for comparison to thermal treatment
- Parties working dispute resolution
 - ✓ Responses to technical comments
 - ✓ Discussing splitting complex FS into more manageable subprojects

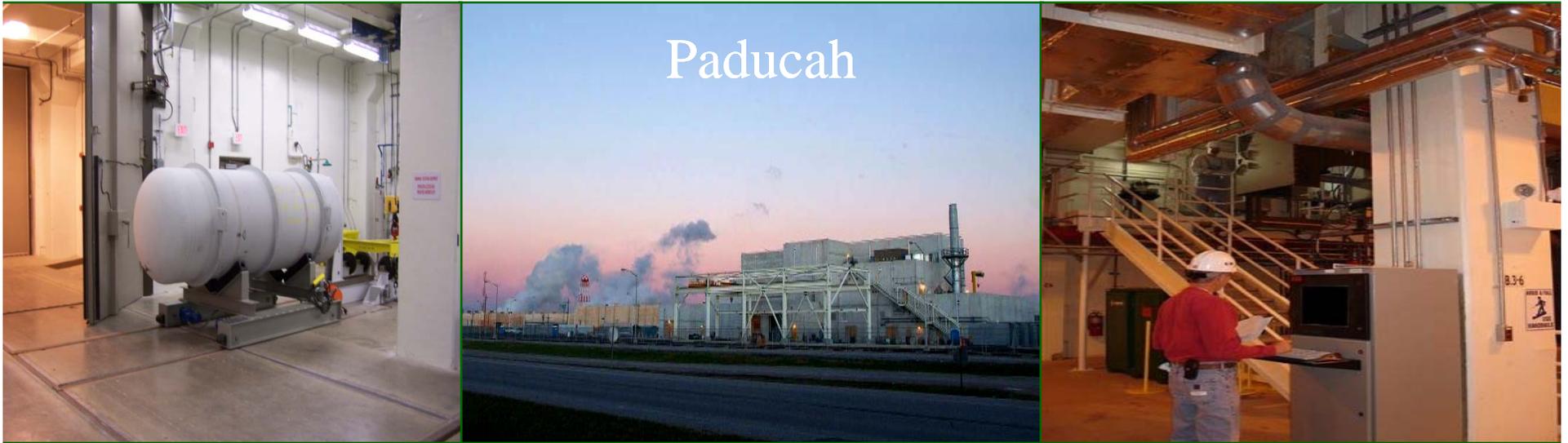
Federal Facility Agreement

CERCLA Waste Disposal Options Project

Update

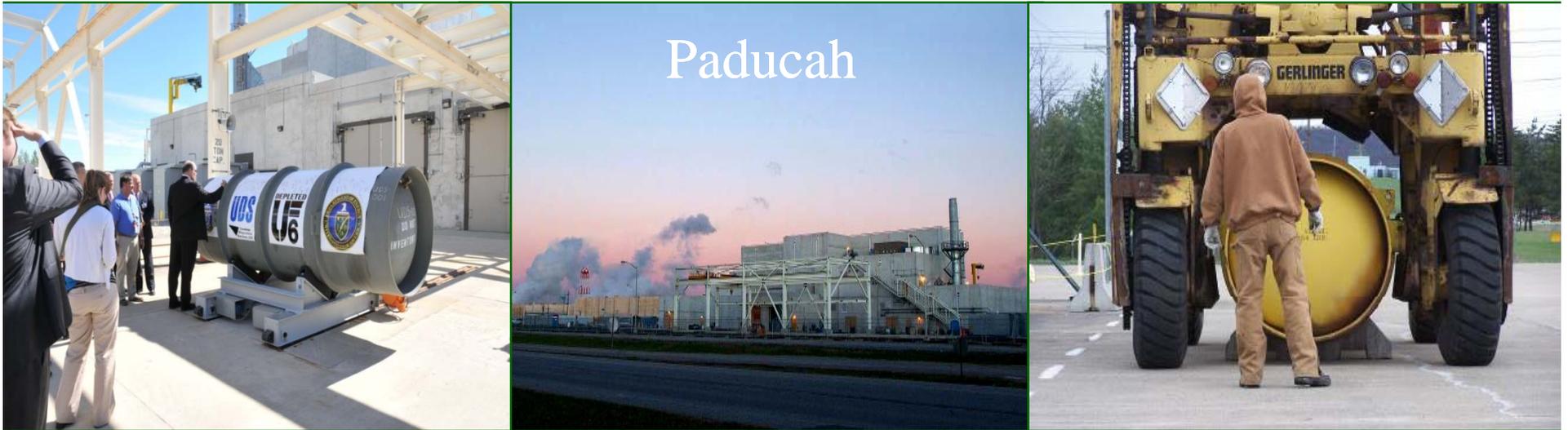
- DOE, KY, EPA and subject matter experts attended WAC modeling workshop March 9-10
- Currently conducting joint evaluations with KY and EPA to finalize PWAC modeling
- Next review meeting April 21 with goal to agree on changes to the WDO RI/FS Work Plan
- Plan is to submit revised RI/FS Work Plan (Appendix on modeling) to regulators on or before June 1

Depleted Uranium Hexafluoride (DUF₆) Plant



- Hot Functional Testing is underway
- Ramping up to full operations
- Successfully transitioned to new Operations Contractor (BWCS)
- DUF₆ Conversion Facility will employ over 160 skilled hourly and salaried personnel during operations.

Depleted Uranium Hexafluoride (DUF₆) Plant



- BWCS Readiness Assessment Plan has been approved by DOE, implemented, and expected to complete April 2011
- Test/Commissioning is in process and estimated to complete in 2011
- Line 2 conversion process heat up began early 2011 and is ongoing
- DUF₆ conversion operations has successfully generated hydrofluoric acid and uranium oxide for disposal



CAB Workplan Review Meeting
May 19, 2011



Southwest Plume Ad-Hoc
Maggie Morgan

Committee Goals

- **Very focused study of documents concerning DOE's plan to remediate the Southwest Plume sources**
- **Provide DOE with Recommendations on how to proceed**

Accomplishments

- **REC 11-1**

Southwest Plume Sources Project

- *...the CAB supports DOE's decision to delay the submittal of the Southwest Plume Sources D2/R1 Proposed Plan pending further evaluation of proposed remediation alternatives*
- *The CAB also supports DOE's decision to re-evaluate their options before resubmitting the Southwest Plume Sources Proposed Plan to the regulators.*

Accomplishments

- **REC 11-2**

CAB Comments on Focused Feasibility for Solid Waste Management Unit 1

SWMU-1 (C-747-C Oil Land Farm)

- *The CAB recommends that DOE pursue negotiations with EPA and DWM to implement in-situ bioremediation at the oil land farm. To support these recommendations, the CAB recommends that DOE provide a more detailed explanation of how in-situ bioremediation will be implemented that clearly demonstrates why the soil and geological characteristics will not be an issue.*

SWMU-211A, SWMU-211B (C-720 Northeast and Southeast)

- *...the CAB recommends that DOE negotiate with EPA and DWM to determine what additional sampling might be beneficial to determine if DNAPL is present. Although additional sampling would result in an implementation delay, the extra time is trivial compared with the overall estimated time of completion for either alternative.*

Where to Go...

- **Recent documentation between DOE and KY shows work is still needed**
- **We suggest continuing the Ad-Hoc until final cleanup decision is reached**



**Waste Disposition
Judy Clayton**

Committee Goals

- Evaluate and make recommendations on DOE's planning and implementation of the treatment, storage, disposal and transportation of wastes and materials for which the EM Program is responsible.
- Facilitate public participation in providing feedback to DOE on these decisions considering human health and the environment.
- DOE complex-wide concerns and impacts related to DOE's missions will also be considered.

Month	Subject	Topic	Outcome
October 2010	Waste Disposal Options Siting/Long Term Impacts	Subcommittee tour of possible locations of a potential CERCLA waste disposal facility in preparation for a recommendation to DOE. Discussion of long term impacts of siting an on-site cell.	Trip to Fernald
December 2010	Asset Recovery/Recycling/Microwave Smelter	Presentation on potential viability of an asset recovery/recycling program for D&D of the PGDP in preparation for a recommendation to DOE	Ralph Young trip with LATA to Denver
February 2011	Review DOE request for additional information	Recommendation 10-06, Siting Criteria for a Potential CERCLA Cell	
April 2011	Waste Disposal Options Alternatives-Cost/Benefit Analysis	Evaluate Waste Disposal Alternatives at the site	
June 2011	Waste Disposal Options ARARs/WAC	Review and consider contaminants that will be a part of the waste generated for disposal	
August 2011	FY 2012 Project Briefings	Project Update and Briefings in preparation for Annual CAB Retreat	

Accomplishments

- *Completing plans to receive Board-wide training on issues/ concepts surrounding Waste Disposition Alternatives*
- *Plans to make training materials available to public in Workshop format*



Funding & Scheduling
Mike Kemp

Committee Goals

- To evaluate and make recommendations related to the prioritization of cleanup activities as they might be impacted by funding conditions at the PGDP.
- DOE complex-wide concerns and impacts related to DOE's missions will also be considered.

Activities

- **ARRA projects are coming to completion**
- **Federal budget cuts have greatly impacted workplan and milestones**
- **DOE issued guidance on budget inputs for upcoming fiscal year**

Where to Go...

- **Committee struggled to reach quorum to have meetings**
- **Complexities of Federal budgeting process necessitates longterm commitment from Committee members**
- **Recommend retooling the committee and begin a thorough training process, so that committee is ready to issue advice when appropriate**



**Burial Grounds
Judy Clayton**

Committee Goals

- To evaluate and make recommendations on DOE's approach to remedial alternatives associated with eight burial grounds located on the GDP site.
- Facilitate public participation in providing feedback to DOE on these decisions considering human health and the environment.
- DOE complex-wide concerns and impacts related to DOE's mission will also be considered.

Activities

- **Reviewed DOE response to REC 10-02**

Accelerate Remediation of SWMU 4

-DOE intends to:

1) Prepare a SWMU 4 Removal Action EE/CA for public comment in the near future.

2) CERCLA documentation as required to be able to start field actions for SWMU 4, if an "action" alternative is selected and provided funding is available.

3) DOE will work closely with the Kentucky Department for Environmental Protection and the U.S. Environmental Protection Agency to prioritize site environmental remediation activities to ensure continued protectiveness of the public and environment and maximize workforce stability.

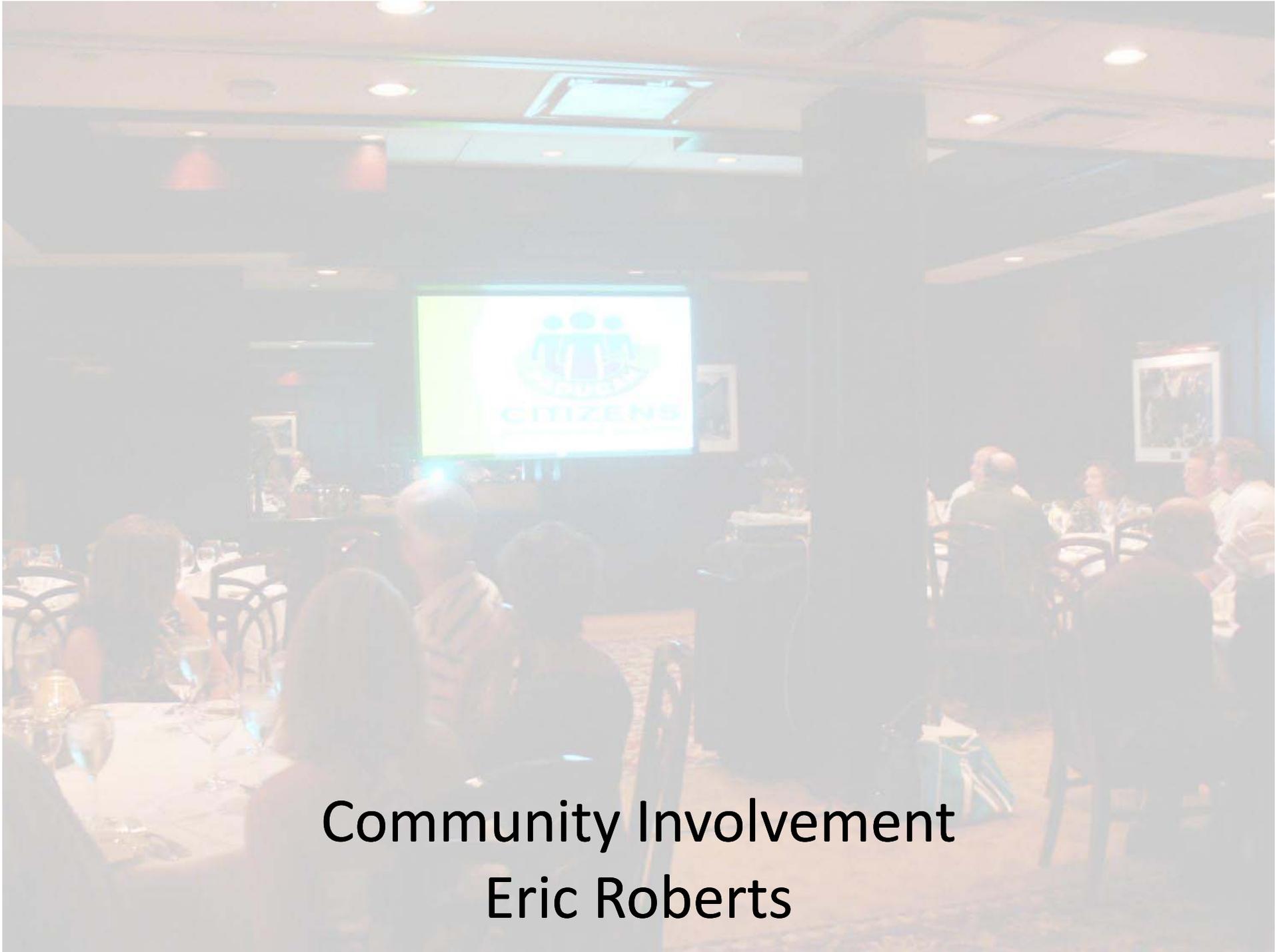
Accomplishments

- **Funding/ dispute issues have slowed down the Burial Grounds projects**



Where to Go...

- **Recent documentation between DOE and KY shows work is still needed**
- **We suggest continuing the Ad-Hoc until final cleanup decision is reached**



**Community Involvement
Eric Roberts**

Committee Goals

- **To create avenues for communication to the communities impacted by the environmental management activities at the Paducah Gaseous Diffusion Plant allowing for participation and/or representation.**

Accomplishments

- **Eco-fair**
 - *May 18 & 19, 2011*
- **DOE Public Meetings**
- **KRCEE Future Use Project**
- **Scheduled to present to Rotary Club on July 6**

Where to Go...

- **At this point, Community Involvement is primarily a task driven committee**
- **Recommend for upcoming year, rolling responsibilities to Executive Committee**



**Historical Preservation
Ben Peterson**

Committee Goals

- **To make recommendations regarding the short and long term vision for preserving and archiving the role of the PGDP in the community and the nation that represent the communities interest.**

Accomplishments

- **Multiple Recommendations:**

- 10-07 PGDP Site Museum
- 10-08 Comprehensive Oral Histories Program
- 10-09 Document Outlining the History of PGDP by Fall 2011
- 10-10 Preservation of Artifacts and Memorabilia
- 11-03 Inclusion of WFO in Oral Histories
- 11-04 CAB's Vision for Preserving Artifacts
- 11-05 Classified Oral Histories Program

Accomplishments

- **Initiation of the following projects:**
 - **Video Documentary (part 1)**
 - **Oral Histories Project**
 - **Classified Oral Histories Project**
 - **Site Historical Book**

Where to Go...

- **Continue to work with DOE, KRCEE and WKCTC to complete current projects**
- **Assess projects and look for additional ways to “tell the story”**
- **Work toward defining what the CAB and community wants for a Legacy Center.**
- **Provide input where possible on potential future uses and redevelopment of the DOE property.**