



April 26, 2012

**Chair**  
Ralph Young

**Vice-Chair**  
Maggie Morgan

**Board Members**  
Glenda Adkisson  
Judy Clayton  
Robert Coleman  
Eddie Edmonds  
David M. Franklin  
Kyle Henderson  
Jonathan Hines  
Mike Kemp  
Kevin L. Murphy  
Dianne O'Brien  
Ben Peterson  
Elton Priddy  
Richard Rushing  
Jim Tidwell  
Roger Truitt  
Ken Wheeler

**Student Participant**  
R. Colby Davis

**Board Liaisons**  
Reinhard Knerr  
*DOE DDFO*

Buz Smith  
*DOE Federal Coordinator*

Todd Mullins  
*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 April Board Meeting

**6:00**

Call to order, introductions  
Review of agenda

**DDFO's Comments**

-- 20 minutes

**Federal Coordinator Comments**

-- 5 minutes

**Liaison Comments**

-- 5 minutes

**Administrative Issues**

**Chairs Meeting Update – Ralph Young**

-- 15 minutes

**Subcommittee Chair Comments**

-- 10 minutes

**Public Comments**

-- 15 minutes

**Final Comments**

-- 5 minutes

- Departing Member Recognition – Colby Davis

**Adjourn**



# PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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## Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes April 26, 2012

*The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on Thursday, April 26<sup>th</sup> at 6:00 p.m.*

**Board members present:** Glenda Adkisson; Judy Clayton; David Franklin; Mike Kemp; Ben Peterson; Dick Rushing; Jim Tidwell; Roger Truitt; Ken Wheeler and Ralph Young, Chair.

**Board members absent:** Robert Coleman; Eddie Edmonds; Kyle Henderson; Jonathan Hines; Maggie Morgan; Kevin L. Murphy; Dianne O'Brien; and Elton Priddy.

**Student Participant:** Colby Davis, absent

**Board Liaisons and related regulatory agency employees:** Tim Kreher, Kentucky Department of Fish and Wildlife Resources

**DOE Deputy Designated Federal Official:** Reinhard Knerr

**DOE Federal Coordinator:** Buz Smith

**U.S. Department of Energy (DOE) related employees:** Eric Roberts, Jim Ethridge, EHI Consultants (EHI); Eddie Spraggs, Mark Duff, Keith Jeffries, LATA Kentucky.

**Public:** Tony Graham, Andrew Smith

### Introductions

**CAB Chair, Young** called the meeting to order at 6:00 p.m. **Young** thanked everyone for attendance and called for introductions. **Young** then asked for **Knerr's** comments.

### Deputy Designated Federal Official Comments

**Knerr** makes presentation.

<p><b>Wheeler:</b> After visiting the site and talking with some of the workers, I found out that they were not aware of the outcome of the work they had been a part of. With the success of the groundwater treatment that has been going on at the site, I think it would be good to pass that success story on to the workforce.</p>	<p><b>Knerr:</b> OK.</p>
<p><b>Kemp:</b> I have a question about using iron slurry. In using it, do you go to vinyl chloride or does it go straight to ethane pretty quickly?</p>	<p><b>Knerr:</b> I am not sure about the rate of degradation. We can get in contact with you to get you that information.</p>
<p><b>Tidwell:</b> Have you figured out why the electrical</p>	<p><b>Knerr:</b> There's a variety of reasons. The</p>

resistance heating didn't work?	electrodes were about six feet apart, and we found they need to be about two to three feet apart to get it up to temperature. There was a high level of risk that it wouldn't be successful at that close spacing. The groundwater travels through this area very quickly. We wanted to see if we could get the system up to temperature to test it before putting it into the RGA (regional gravel aquifer).
<b>Kemp:</b> Has there been a problem with rust and the air strippers?	<b>Knerr:</b> Not that I am aware of.
<b>Wheeler:</b> Has the chemical option been used at other sites?	<b>Knerr:</b> Yes.

**Federal Coordinator Comments:** None

**Liaison Comments:** **Kreher** gave a update on the status of the Eco Fair planning in **Davis'** absence.

**Administrative Issues:** **Young** made a presentation on the response to CAB Recommendation 12:01, which was a progress report on groundwater contamination. **Young** pointed out that DOE requested that the CAB provide an outreach plan to detail the approach to stakeholder involvement.

**Chairs Meeting Update:** **Young** presented an update and wrap-up on the EM SSAB Chairs meeting, including presenting the recommendation developed during the Chairs meeting on DOE support of all the SSAB Boards' budgets.

<b>Wheeler:</b> In the past, a lot of research was done on the nickel smelting operation and has that information been spread or is Portsmouth's recent expression of interest in the nickel duplicating what has already been done?	<b>Knerr:</b> We were not very successful in merging the research with the end use back then because it is in a controlled environment. The current expression of interest is to establish criteria to allow it to be free released.
<b>Tidwell:</b> Please tell me about uranium bartering.	<b>Knerr:</b> The Government is not supposed to compete with private industry. There is a study to determine what kind of impact the introduction of the re-enriched tails will have on the market.

**Young** asked for a motion to vote on the Recommendation presented during the Chairs meeting. **Tidwell** introduced the motion, and **Truitt** seconded the motion. The motion was voted on and passed by consensus.

**Subcommittee Chair Comments:** **Young** asked for subcommittee chair comments. **Peterson** gave a Historic Preservation update. **Kemp** gave a Burial Grounds update.

**Public Comments:** None

**Final Comments:**

<b>Wheeler:</b> We heard on the tour that the last proposal to remove the transite from the buildings is not the current plan. Is that right?	<b>Duff:</b> It is pretty much a done deal and we will be looking at alternative methods. <b>Knerr:</b> We will be looking at other options because of the cost involved which would affect
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	the overall take-down of the GDP.
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**Young** pointed out that **Priddy** and **Davis** would be leaving the board. **Priddy** had finished his term on the board and **Davis** was graduating from college and taking a job elsewhere.

**Roberts** complimented the Board for their part and help in conducting the Chairs meeting the previous week.

**Smith** complimented **Roberts** for stepping in at the last minute, because of a cancellation, to facilitate the Chairs meeting and doing a great job.

Having no further business, **Young** adjourned the meeting at 7:10pm.

Approved by Ralph Young, Chairman



Ralph Young

# Paducah Citizens Advisory Board

## DDFO Presentation

Reinhard Knerr, Paducah Site Lead

April 26, 2012



**CITIZENS**  
**ADVISORY BOARD**



*EM Environmental Management*

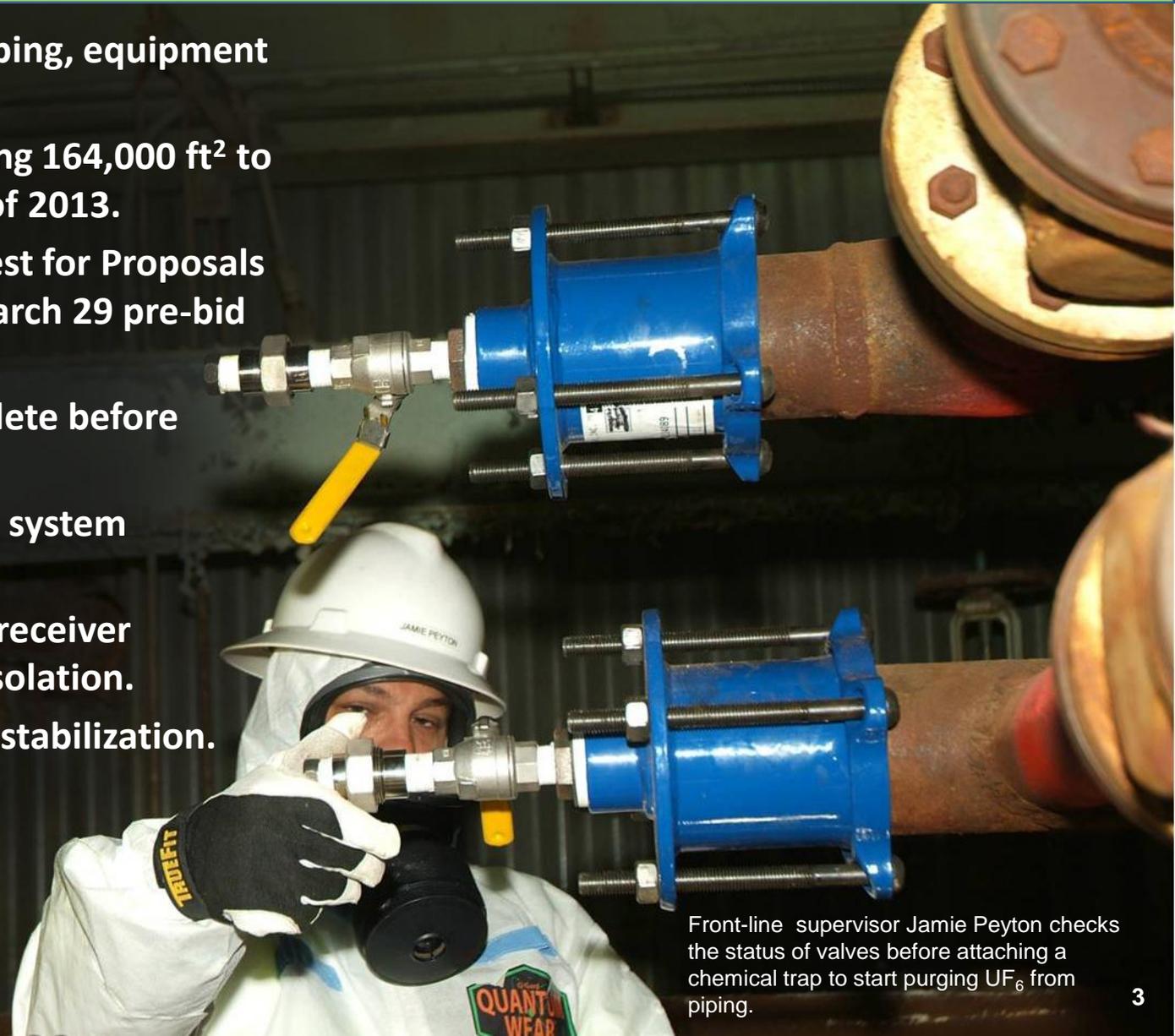
safety ❖ performance ❖ cleanup ❖ closure

# Presentation Agenda

- Inactive facilities removal
- Groundwater cleanup
- Site Management Plan
- Governor's Health and Safety Awards
- $\text{DUF}_6$  plant update
- Heath Middle School science project
- DOE Science Bowl
- National SSAB Chairs Meeting
- DOE-EM Senior Advisor Dave Huizenga visit
- Recent/upcoming documents

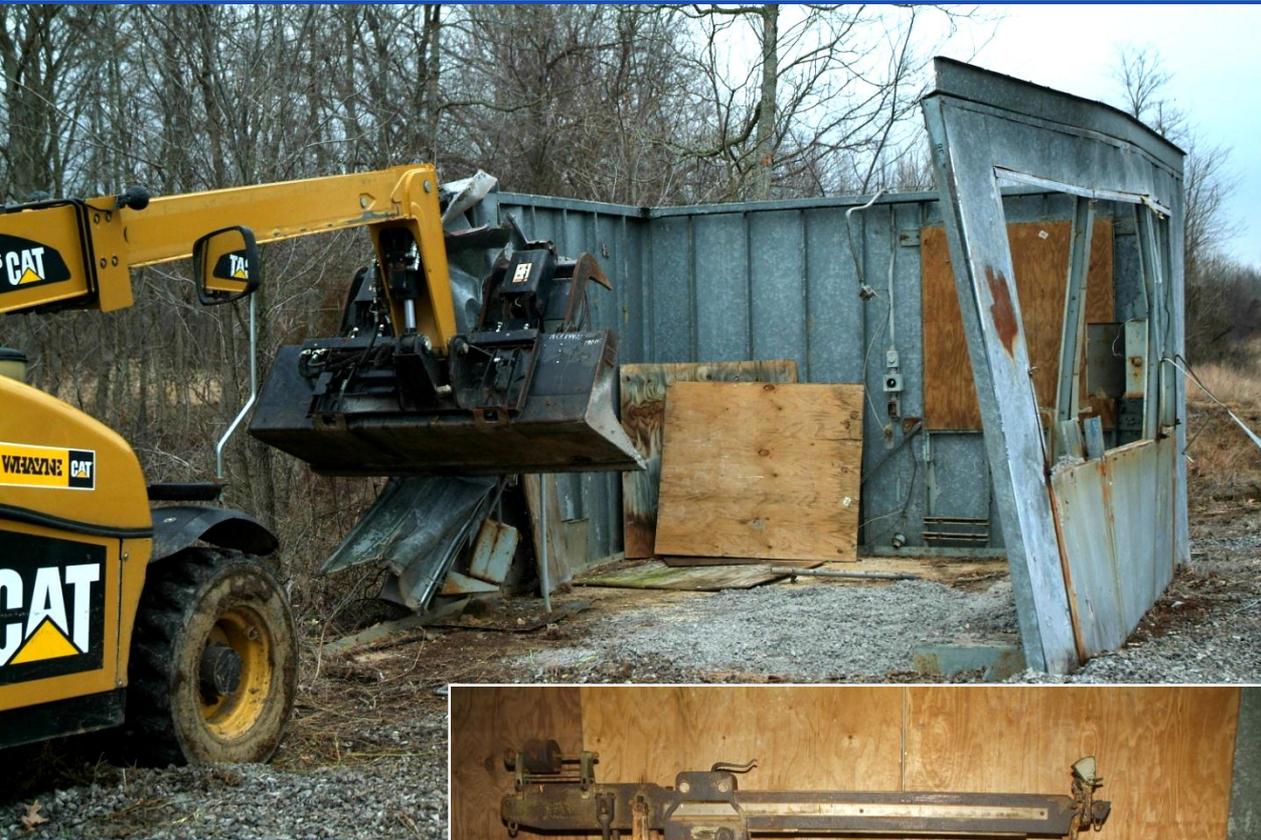
# Inactive Facilities Removal: C-410 Feed Plant

- Nearly 90,000 ft<sup>3</sup> of piping, equipment removed.
- Demolition of remaining 164,000 ft<sup>2</sup> to be completed by end of 2013.
  - LATA issued Request for Proposals March 15; held March 29 pre-bid meeting and tour.
- Key elements to complete before demolition:
  - HVAC and vacuum system stabilization.
  - Cold trap and ash receiver stabilization and isolation.
  - UF<sub>6</sub> piping system stabilization.



Front-line supervisor Jamie Peyton checks the status of valves before attaching a chemical trap to start purging UF<sub>6</sub> from piping.

# Inactive Facilities Removal: Scale House



- Crews in late February removed an abandoned railroad scale house in WKWMA southeast of the Paducah plant.
- Scale house was used in 1950s to weigh plant freight.
- Most of the materials were recycled.
- Scale preserved at CAB request.
- Scale house part of >142,000 ft<sup>2</sup> of inactive facilities to be razed through 2014.

Heavy equipment demolishes the C-720-N Scale House, above. The scale, right, was preserved for the CAB because of potential historical significance.

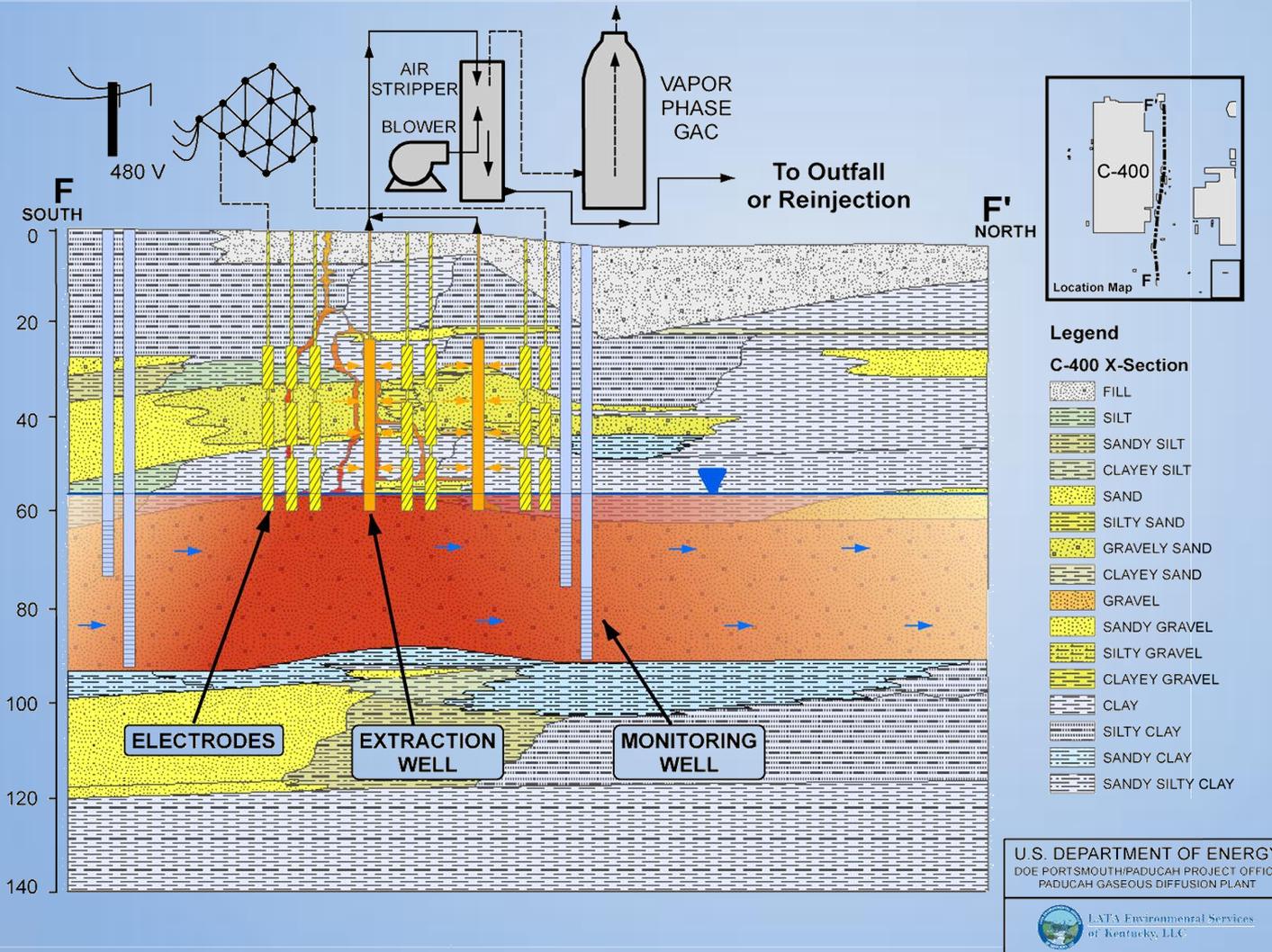
# Groundwater Cleanup: Southwest Plume Source Removal

- **March 16 ROD first at Paducah since 2005.**
- **Remedies:**
  - **Deep soil mixing with iron slurry at oil landfarm (SWMU 1).**
  - **Bioremediation or long-term monitoring at two areas near C-720 Maintenance/Stores building contingent on additional testing this summer.**
- **Remedy implementation to start by summer 2013.**



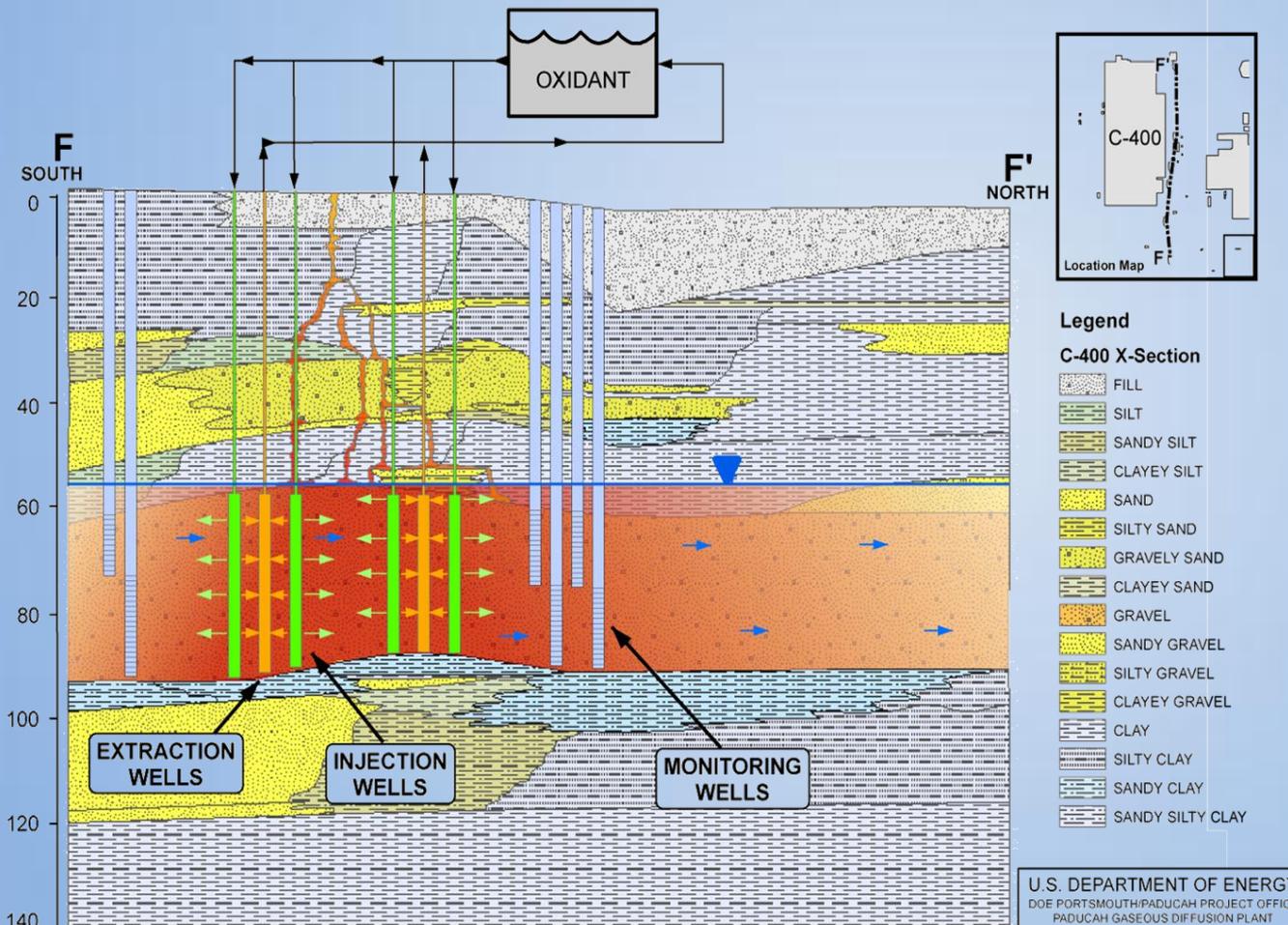
Deep soil mixing at Paducah will involve a large-diameter auger like this one.

# Groundwater Cleanup: C-400 Source Removal Phase IIa



- Construction of electrical resistance heating system to depth of 60 ft. to start by end of summer for Phase IIa.
- Operation planned for 2013.
- Estimated maximum 2,500 gals. of TCE remain.

# Groundwater Cleanup: C-400 Source Removal Phase IIb



C-400 Phase IIb Schematic Depiction of *In Situ* Chemical Treatment

- ROD amendment being prepared for Phase IIb
  - Potassium permanganate to be injected 60-100 ft. deep
  - Chemical oxidation expected to reduce source-based TCE by at least 90%.
  - Estimated maximum 4,500 gals of TCE remain.
  - Construction to begin in January 2014.

# 2012 Site Management Plan

- FFA parties approved FY 2012 Site Management Plan in March.
- Plan sets enforceable milestones for FY 12, 13, 14.
- Incorporates results of written decision on the Burial Grounds Operable Unit formal dispute.
- Key milestone dates added for C-400 Phase IIa and Phase IIb, as well as CERCLA waste-disposal alternatives.



# Governor's Health and Safety Award



Kentucky Labor Secretary Mark Brown, third from right, presented Governor's Health and Safety Awards March 8 in a ceremony at the Paducah Site.

- DOE's three Paducah prime contractors received Kentucky's top health/safety award in March for nearly 5 million combined safe-work hours.
  - BWCS: 2.5 million
  - LATA KY: 1.25 million
  - SST: 1.08 million
- Labor Secretary Mark Brown said the winners achieve productivity through safety.

# Depleted Uranium Hexafluoride (DUF<sub>6</sub>) Plant



- Babcock and Wilcox Conversion Services (BWCS) continues phased startup of conversion operations.
- FY 2012 focus:
  - Achieve around-the-clock, 24/7 operation of all four conversion lines.
  - Safely convert DUF<sub>6</sub> cylinder inventory at design capacity.
- Plant operating one line and working to bring three online.
- About 1,400 metric tons of DUF<sub>6</sub> processed so far in FY 2012.
- Portsmouth-Paducah Project Office reviewing BWCS baseline for accuracy, completeness.

# Heath MS Science Project

## Heath Middle School gifted-talented science project

- Groups made presentations April 20 to DOE on how to reduce levels of zinc and tiny organism toxicity in outfall near DUF<sub>6</sub> plant.
- 26 students spent school year trying to determine how to resolve the zinc issue.
- DOE, LATA Kentucky, UK College of Engineering-Paducah, and KDEP mentors assigned to groups, who made several plant visits and worked after school.



Heath Middle School students Ashley Reagan and Evan Shepherd (background) test for zinc in solution, using kits provided by a grant through the UK College of Engineering-Paducah.

# DOE Science Bowl

## Third Annual Regional DOE Science Bowl in Paducah

- Calloway County Middle, Lone Oak High compete nationally April 26-30.
- Both won regional competition in March.
- DOE, contractors judged regionals.
- DOE, UK-Paducah Campus, WKCTC, Chamber Business-Education Partnership sponsored.
- 10 businesses contributed.



Coach Scott Pile congratulates his Calloway County Middle School team during the finals of the Department of Energy's Regional Science Bowl in Paducah. From left are team members Jaewon Kang (partially shown), Claire Umstead, Sam Morehead, and Martin Mikulcik.

# National SSAB Chairs Meeting

EM Site-Specific Advisory Board chairmen and members from eight DOE sites toured the Paducah plant April 17 before holding their semiannual meeting at the Carson Center April 18-19. They are shown in front of the Feed Plant.



# Dave Huizenga Visit

DOE-EM Senior Advisor Dave Huizenga, right, and Paducah Site Lead Reinhard Knerr look at a Paducah Site groundwater model that UK College of Design students created for the PGDP Citizens Advisory Board. The model was displayed at the Carson Center, where Huizenga spoke at the national DOE SSAB Chairs Meeting. This was Huizenga's first face-to-face meeting with the chairmen and first visit to the Paducah Site.



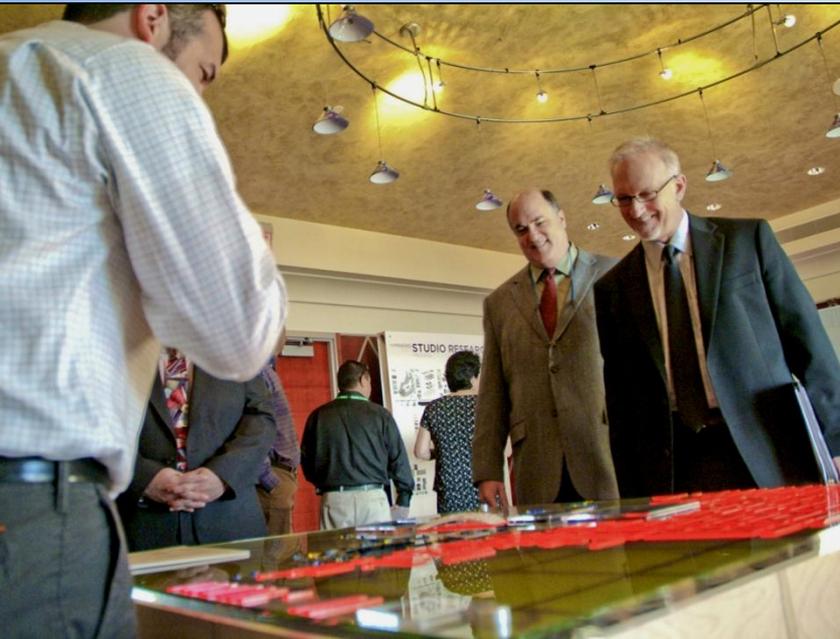
# Dave Huizenga Visit



Left, LATA Kentucky Projects Manager Craig Jones greets EM Senior Advisor Dave Huizenga during Huizenga's first tour of the Paducah Site. Huizenga was briefed on the C-333 Process Building, Feed Plant cleanup, C-400 Source Removal Project, nickel ingots, burial grounds, and the DUF<sub>6</sub> Conversion Facility.

Bottom left, Huizenga and PPPO Manager Bill Murphie view the Paducah CAB groundwater model displayed at the SSAB Chairs Meeting.

Bottom right, Huizenga (upper left center) addresses SSAB chairmen.



# Recent and Upcoming Documents

- Groundwater OU
  - ❖ Revised D2 Southwest Plume Remedial Design Work Plan – **due April 27**
  - ❖ D1 C-400 Phase IIa Remedial Action Work Plan – **due in May**
  - ❖ SW Plume 30% Remedial Design Report– **due in May**
  - ❖ D2 C-400 Phase IIb Proposed Plan – **due in early June**
- Burial Grounds OU
  - ❖ Feasibility Study (FS) SWMUs 5-6 – **submitted Feb. 29**
  - ❖ Revised SWMU 4 Sampling and Analysis Plan – **submitted April 24**
  - ❖ FS SWMUs 2, 3, 7, 30 – **planned submittal April 29**
- CERCLA Waste Disposal Alternatives RI/FS Report
  - **planned submittal in early May**
- D2 Surface Water OU RI/FS Work Plan
  - **planned submittal June 15**
- Soils OU Remedial Investigation Report
  - **planned submittal Aug. 15**



# Discussion...



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safety ❖ performance ❖ cleanup ❖ closure