



July 16, 2015

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**Vice-Chair**

Renie Barger

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Judy Clayton

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Bill Murphy

Kevin L. Murphy

Cindy Ragland

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Jim Tidwell

Ken Wheeler

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Jennifer Woodard

*DOE DDFO*

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*DOE Federal Coordinator*

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*Division of Waste*

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*Agency*

Mike Hardin

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Stephanie Brock

*Radiation Health Branch*

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## Agenda for the July Board Meeting

**6:00**

Call to order, introductions

Review of agenda

**DDFO Comments**

-- 15 minutes

**Federal Coordinator Comments**

-- 5 minutes

**Liaison Comments**

-- 5 minutes

**Presentations**

-- 10 minutes

- Introduction to PGDP site contractors

**Administrative Issues**

-- 10 minutes

- Recommendation 15-XX : Review of Contracting Practices for Major Cleanup Activities

**Subcommittee Comments**

-- 10 minutes

**Public Comments**

-- 15 minutes

**Final Comments**

-- 10 minutes

**Adjourn**

# Fluor Federal Services, Inc., Paducah Deactivation Project



July 2015

**FLUOR**®



# Fluor Federal Services, Inc., Paducah Deactivation Project

- Fluor Federal Services and teaming partners

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**LSRS** | A  
LATA  
COMPANY



- Contract duration July 2014 to July 2017.
- Contract valued at approximately \$420 Million.
- Scope of work
  - Facility Stabilization
  - Facility Deactivation
  - Infrastructure Optimization
  - Environmental Management

**We value the skill set, experience, attitude,  
and work ethic of the workforce!**

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# Accomplishments Since July 2014



- October 21, 2014, transitioned the Gaseous Diffusion Plant from USEC to DOE.
- Inspected facilities to ensure DOE and regulatory requirements were met.
- Stood up functional organization to support project execution with a majority of incumbent employees.
- Restarted site utilities, connected temporary heat to process facilities, and provided fire protection to process areas.
- Initiated engineering and procurement activities to support FY 15 project execution.
- Negotiating a new collective bargaining agreement with the unions.

# Key Projects to Support Near-Term Mission

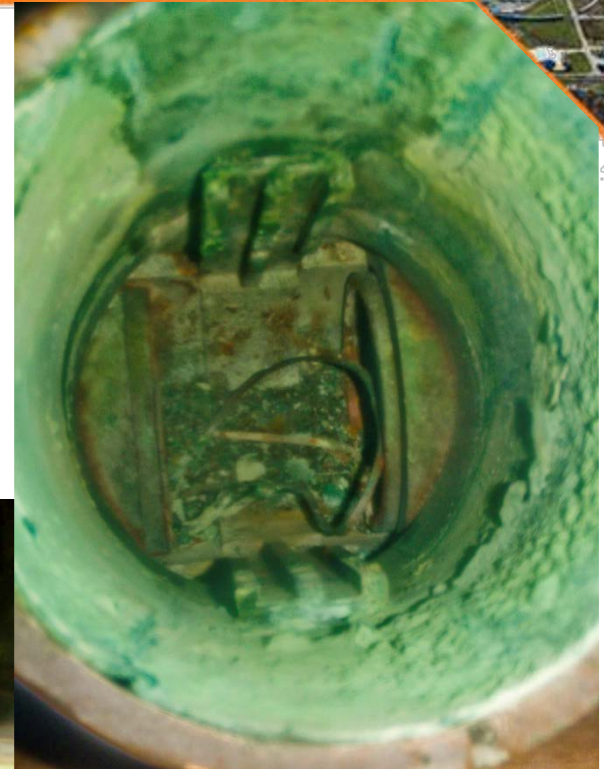
- Utility Optimization
  - Consolidate switchyards to save money
  - Upgrade water settling basin to support future water needs.
- Hazard Reduction
  - Remove uranium hold up material from process piping.
  - Remove 8.6 million pounds of R-114 (refrigerant) from process buildings.
  - Disconnect power, drain, and dispose PCB oil from the process building transformers.
- Facility Optimization
  - Cleanout support and storage facilities to prepare them for future D&D.
  - 11 inactive facilities have been identified for demolition.





# Key Project: Uranium Deposit Removal

- There are 1,760 stages of enrichment at the Paducah Gaseous Diffusion Plant. These stages enriched uranium through approximately 400 miles of piping.
- Though the plant has ceased operations, an estimated 30,000 lbs of deposits are present in process piping and equipment.
- Building on the lessons learned from Portsmouth and Oak Ridge, Paducah realized the necessity to perform deposit removal and has developed a new technology to remove the uranium in the system.
- This technology improves worker safety while advancing the site toward the goal of future D&D.
- Deposit removal facilitates placement of the piping/equipment in the potential on-site waste disposal facility.



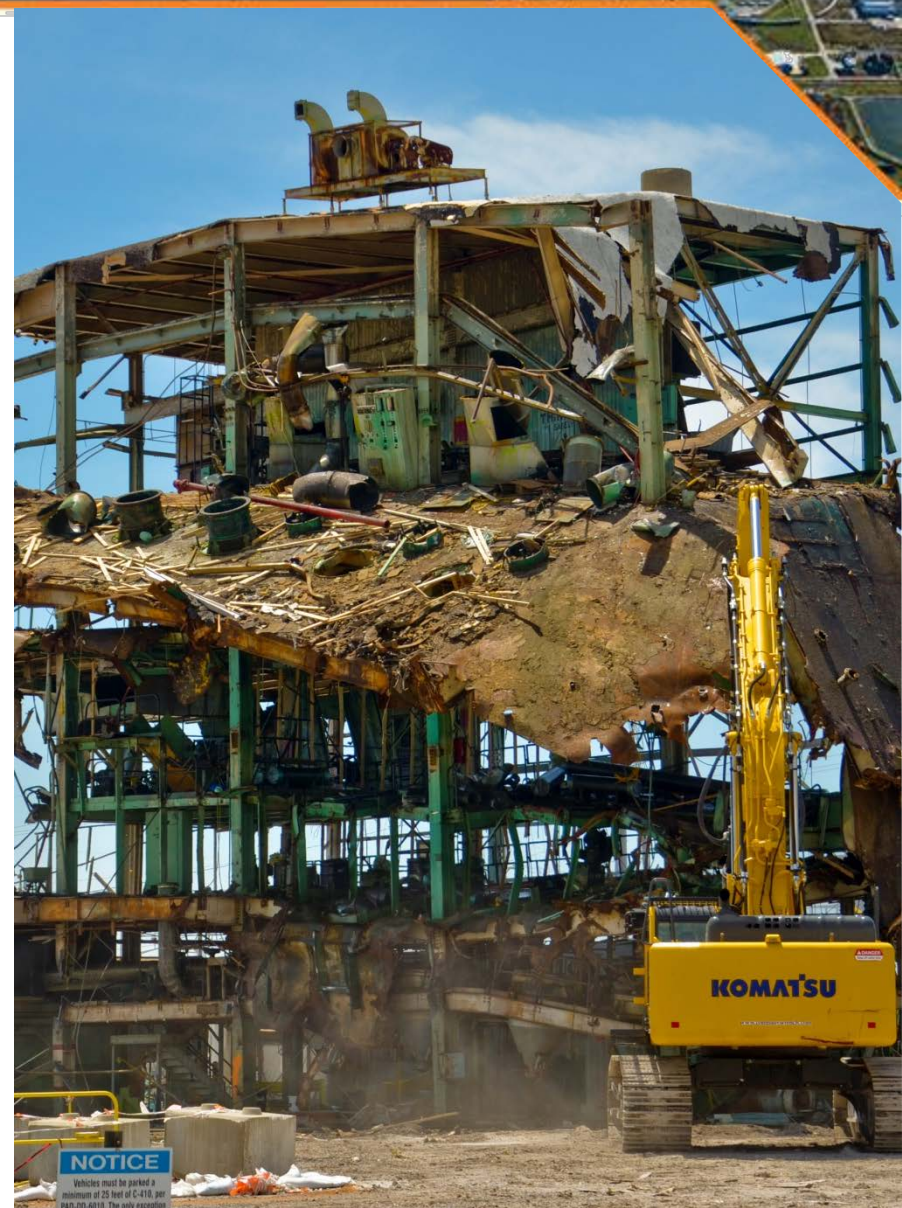
# LATA Kentucky Environment Contract

- LATA Environmental Services of Kentucky, LLC, and teaming partners
  - Stoller
  - B&W
- Contract duration July 2010—July 2015
- Contract valued at \$445M
- Scope of work
  - Remediate site contamination to reduce risk to workers, public, and environment.
  - Operate and maintain waste management facilities.
  - Conduct D&D activities.
  - Environmental Management



# LATA Kentucky Cleanup Accomplishments

- More than three million safe work hours without a lost time incident.
- Demolished 9 buildings including two primary highly contaminated building which resulted in a 180,000 ft<sup>2</sup> reduction in the site's footprint.
- Actively remediating TCE contamination and addressing ground water contamination.
- Removed over 1,900 gallons of TCE from the groundwater through pump and treat operations, electrical resistance heating, and deep soil mixing
- Working closely with stakeholders and community to determine path forward for potential on-site waste disposal facility.
- Actively working regulatory documents needed to progress to field activities.





# Community Commitment Plan

## **Education Outreach**

- Working with the local community college (WKCTC) to identify training and development opportunities to improve employee skills.
- Participating with local schools on various education initiatives such as the DOE science bowl, career days, and science fairs.

## **Commitment to Regional Purchasing**

- In FY 2015, approximately \$100 million in payroll will be spent.
- Procurement and subcontracts will result in approximately \$30 million
- Hosted a Suppliers Forum where 130 businesses showcased their products and services.

## **Commitment to Community Support**

- Conducted United Way employee giving campaign and raised \$28,000; received a Victory Award.
- Regular updates to the Citizens Advisory Board.
- Helping set up the Paducah Community Reuse Organization to facilitate asset recovery.



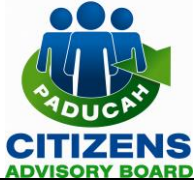
- Swift & Staley Inc. and teaming partners (hereinafter referred to as Swift & Staley Team) [SST]
  - North Wind Solutions, LLC
  - Wastren Advantage, Inc.
- Contract duration June 2010 – September 2015
- Contract valued at \$137M cost + award fee
- Scope of work
  - Infrastructure Support Services including: Surveillance and Maintenance of Facilities; Janitorial Services; Roads and Grounds; Information Technology; Property Management; Records Management; and Site Security.
- Safety
  - SST has worked 1,854,771 hours and 3,545 days without a Days Away Case; (September 16, 2005 – May 31, 2015).
  - Zero – Total Recordable Injuries/Illnesses for Fiscal Year 2015
  - SST Received U. S. Department Of Energy Voluntary Protection Program (VPP) Star Status in January of 2015.
- Swift & Staley Inc. was awarded the Paducah Infrastructure Support Services Contract on June 17, 2015. The contract is for three years plus an option period of 22 months; valued at \$177M.



# DUF<sub>6</sub> Project



- BWXT Conversion Services, LLC (BWCS) is a partnership between BWXT and URS
  - BWCS manages two production facilities – one in Paducah, KY and one in Portsmouth, OH, and maintains a central oversight office in Lexington, KY
  - BWCS contract runs through January 2016
  - Total contract value is \$417M
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- Scope: Converts DOE's inventory of depleted UF<sub>6</sub> to a more stable chemical form for use or disposal
  - Total Material Converted To-Date: 53,223 Metric Tons (overall); 30,067 Metric Tons (Paducah)
  - Operational Improvements
    - Transitioning to a high reliability organization environment and culture
    - Complex high-hazard chemical conversion process
    - Ensuring people, environment and facilities are safe



## **PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD**

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### **Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes July 16, 2015**

*The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on Thursday, July 16th at 6:00 p.m.*

**Board members present:** Judy Clayton, Ben Peterson, Ken Wheeler, Mike Kemp, Renie Barger, Bill Murphy, Cindy Butterbaugh, Tom Grassham, Dick Rushing and Carol Young.

**Board Members absent:** Cindy Ragland, Colby Davis, Basil Drossos, Eddie Edmonds, Victoria Caldwell, Kevin Murphy and Jim Tidwell.

**Board Liaisons and related regulatory agency employees:** Gaye Brewer (KDWM), Tim Kreher, Kentucky Division of Fish and Wildlife.

**DOE Deputy Designated Federal Official:** Jennifer Woodard, DOE

**U.S. Department of Energy (DOE) related employees:** Buz Smith, DOE; Steve Christmas, Con Murphy, Mark Duff, Cory Hicks, Fluor Paducah; Jim Ethridge, EHI Consultants (EHI); Yvette Cantrell, Restoration Services Inc. (RSI); Diane Snow, Swift and Staley (SST).

**Public:** Tony Graham, Scott Darnell

#### **Introductions:**

**Peterson** opened the meeting at 6:00 pm, and asked for introductions and then reviewed the Agenda. He then turned the meeting over to **Woodard** for comments.

#### **DDFO Comments**

**Woodard** said that the contract with LATA KY was ending and that this was the last week for them doing work at the site.

#### **Federal Coordinator Comments**

**Smith** reported that the past Saturday was the Public Tour dry run with CAB members attending and providing feedback. He also expressed his thanks to the members for taking the time to attend and give DOE their thoughts about the tour.

#### **Liaison Comments**



**Kreher** said that he had attended the Environmental Assessment (EA) Public meeting and was pleased to see the number of CAB members in attendance.

## **Presentations**

**Peterson** said that the presentation was given to Senator Mitch McConnell recently and that it was an overview of the different contractors doing work at the Paducah site.

Con Murphy gave the presentation for Fluor Federal Services. He indicated that Fluor at that time had about 800 employees and would be incorporating employees formerly with LATA KY which should eventually bring their numbers up close to 1,000.

<b>Murphy:</b> Were you able to bring back experienced lab workers?	<b>Murphy:</b> Yes we were. We've got a lot of equipment there and we are looking at lab functions that we can do to save some money instead of shipping the work off for analysis.
<b>Woodard:</b> Con (Murphy) glossed over the roofs. It is really a huge project.	<b>Murphy:</b> Yes, there are over 100 acres of roofs that we are re-working. We will be starting work at midnight and work until 10:00am to keep our workers safe from heat exhaustion.
<b>Murphy:</b> Have you gotten any bites from any refrigerant manufacturers about the Freon?	<b>Murphy:</b> Yes, we sent notices to about 50 and got only 6 to answer, which is a little disappointing, but we are bringing in 4 of those to see what their technical approach would be to remediate the Freon.
<b>Murphy:</b> Does anybody else still use that type of Freon?	<b>Murphy:</b> The Navy does. There is not a good path forward to dispose of it right now.

Mark Duff then presented the information concerning LATA KY and their work accomplishments during their five year contract.

<b>Murphy:</b> Do you try to capture the TCE with the deep soil mixing project?	<b>Duff:</b> That's exactly what the deep soil mixing does. You inject steam to mix with the constituent and then that is collected and drawn off. The problem we are having is we estimated that it would take maybe four passes with the augur to clean that area up, and we are looking at between nine and eleven passes to get the job done. But it is working and we will have no TCE in that area upon completion.
<b>Clayton:</b> Could I ask how much TCE you have actually captured from both projects to date?	<b>Duff:</b> It's about 7,500 gallons.
<b>Clayton:</b> How much of it was from 400 (C0400 project)?	<b>Duff:</b> I think you could say that most of it came from 400. <b>Woodard:</b> It is really split between the northwest plume treatment system and the 400 action. Very little of it has come from the other project because that's just not where the volume of TCE is.
<b>Kemp:</b> We haven't talked about groundwater much in the past several months. Does the	<b>Duff:</b> It is actually the contact of the steam with the water. What is happening is you are injecting

difficulty with deep soil mixing seem to be more a factor of how well the soil is mixed, or is the contact of the steam with the water?	so much steam to get the performance you need, you are actually getting a swell from the soil. It's expanding.
<b>Kemp:</b> The reason I asked is partly, I may be forgetting where we are in the groundwater scheme of things, but seems like there is another project that is ongoing using steam injection. I'm wondering if this is an omen that steam injection may not be as effective.	<b>Duff:</b> What we were trying to determine is how far out from the injection site the steam would work. We were afraid that as fast as the groundwater moved, the treatment zone would be small and you would have to drill more areas with the mixer, and not make it feasible. What we found is that it did treat a reasonable area and would work. The deep soil mixing treats a different strata from the steam injection. <b>Woodard:</b> The difference is that the deep soil mixing captures the TCE coming back up the area that has been mixed. The steam injection has extraction points in a different area from the injection site.
<b>Murphy:</b> Do you have a back of the envelope estimate of how much TCE is down there?	<b>Woodard:</b> I think the latest estimates based on what we have extracted out, I think it's in the 8,000 to 10,000 gallons.

**Peterson** suggested getting an update on the groundwater projects at a future time.

Cory Hicks then gave an update about Fluor's community involvement.

Diane Snow, from Swift and Staley (SST), then made a presentation about SST's involvement at the site and what jobs they perform.

### **Administrative Issues**

**Peterson** introduced *Recommendation No 15-04: Review of Contracting Practices for Major Cleanup Activities* for consideration and vote by the Board. After one addition to the Recommendation, the CAB voted on the Recommendation and passed it by acclamation.

### **Subcommittee Comments**

There were none.

### **Public Comments**

There were none.

### **Final Comments**

**Kreher** asked if there was a way to get a few of the smaller Solid Waste Management Units removed from the Wildlife Management Area if funds became available. **Woodard** indicated that there was a long term plan for area cleanup, but it was not a simple task to remove them and took time to accomplish. **Kreher** said that the benefit might be outweighed by the cost.


Scott Darnell reported that the Purchase Area Community Reuse Organization (PACRO) was functioning again he expected much to be accomplished. Murphy asked what the status of the nickel at



the site was. Darnell said that he did not know the answer, but just wanted to provide value to the community and the region through PACRO's efforts. **Woodard** indicated that DOE owned the nickel and could be disposed of to recoup the value at some point in the future.

The meeting adjourned at 7:09pm.

Approved by **Ben Peterson, Chairman**



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**Ben Peterson**