



U.S. DEPARTMENT OF
ENERGY

Paducah Cleanup Progress



DDFO Presentation

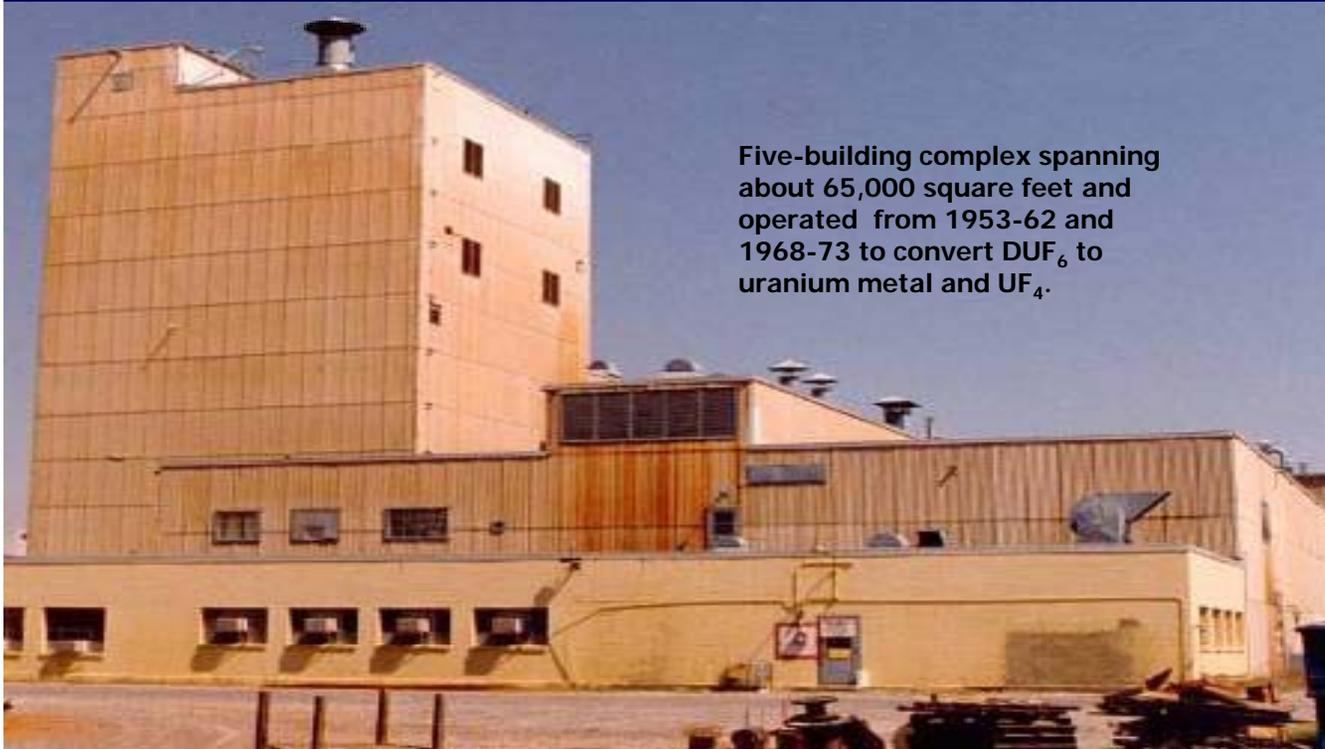
**Reinhard Knerr, Site Lead and DDFO
Paducah Citizens Advisory Board
April 21, 2011**



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



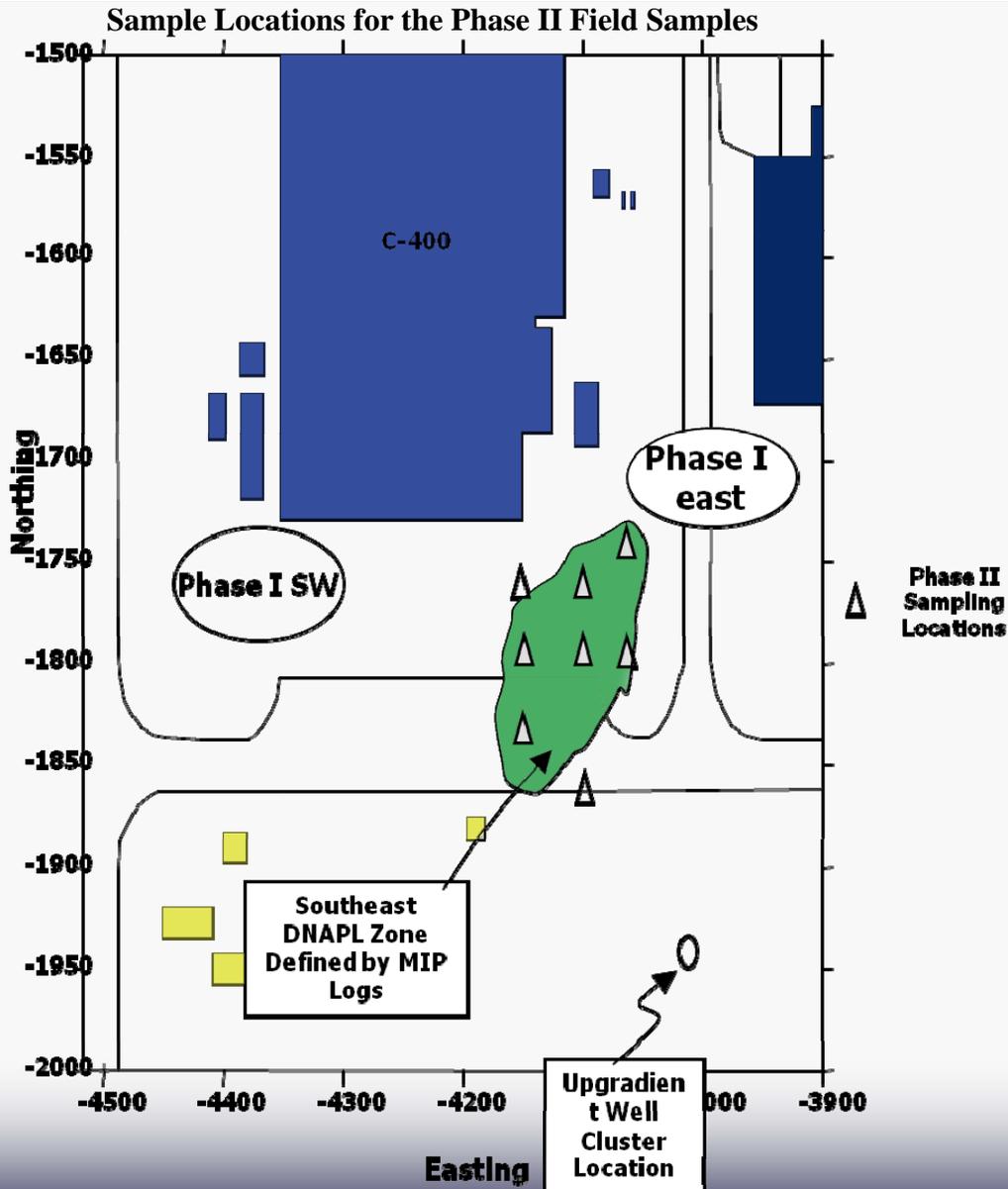
A crew samples groundwater and soil near the C-400 maintenance building to gain better information about TCE contamination in groundwater.

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

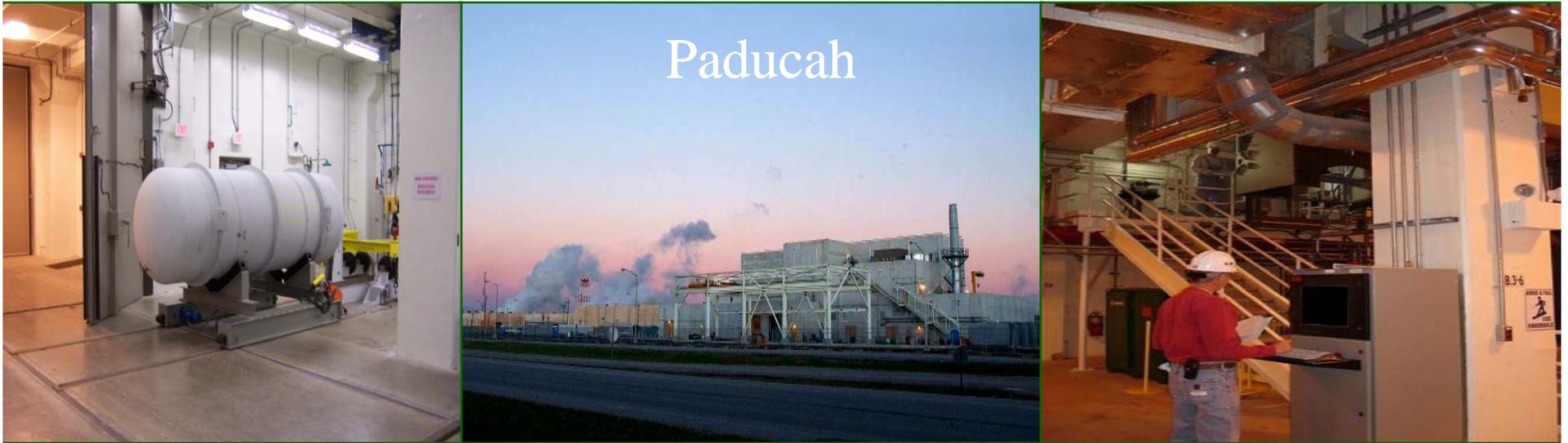
Federal Facility Agreement

CERCLA Waste Disposal Options Project

Update

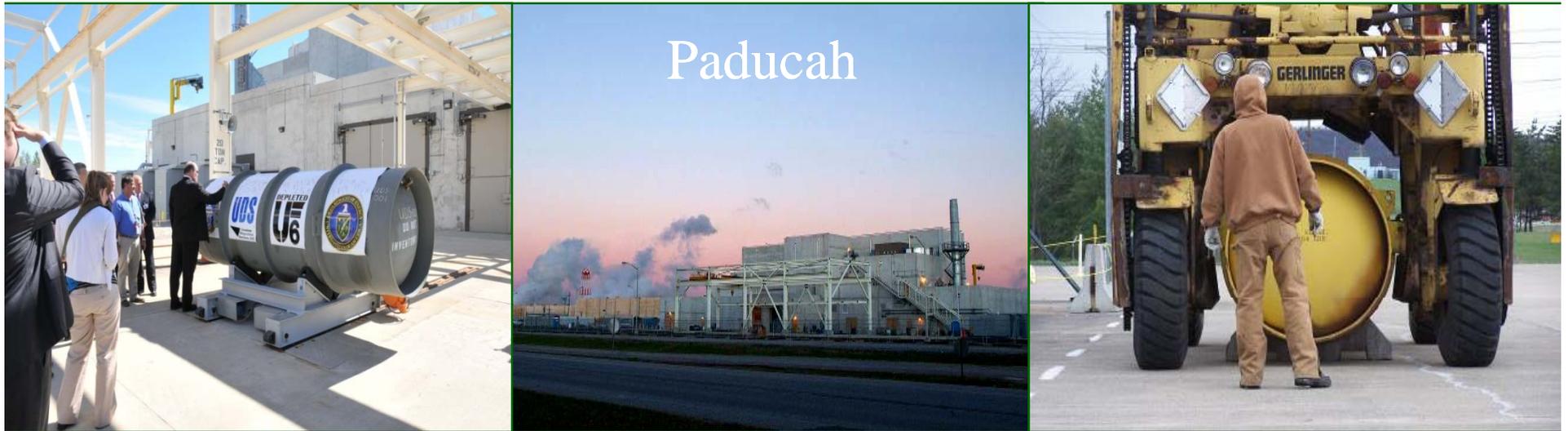
- DOE, KY, EPA and subject matter experts attended WAC modeling workshop March 9-10
- Currently conducting joint evaluations with KY and EPA to finalize PWAC modeling
- Next review meeting April 21 with goal to agree on changes to the WDO RI/FS Work Plan
- Plan is to submit revised RI/FS Work Plan (Appendix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