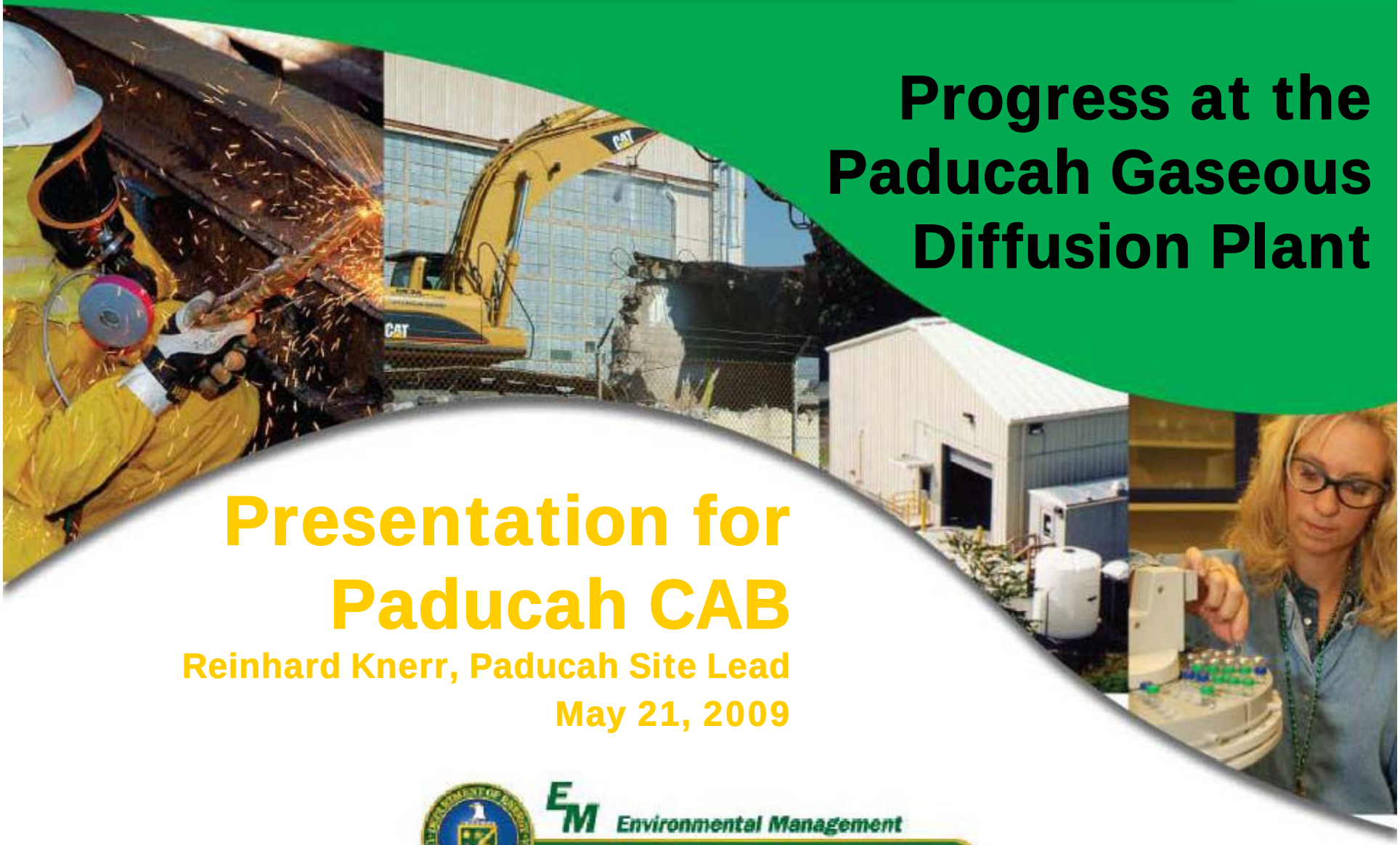
Solving Cleanup Challenges Through Risk Reduction



Progress at the Paducah Gaseous Diffusion Plant

Presentation for Paducah CAB

Reinhard Knerr, Paducah Site Lead

May 21, 2009

Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Presentation Highlights

Legacy Waste

DOE Material Storage Areas

C-400 Interim Remedial Action

Inactive Facilities

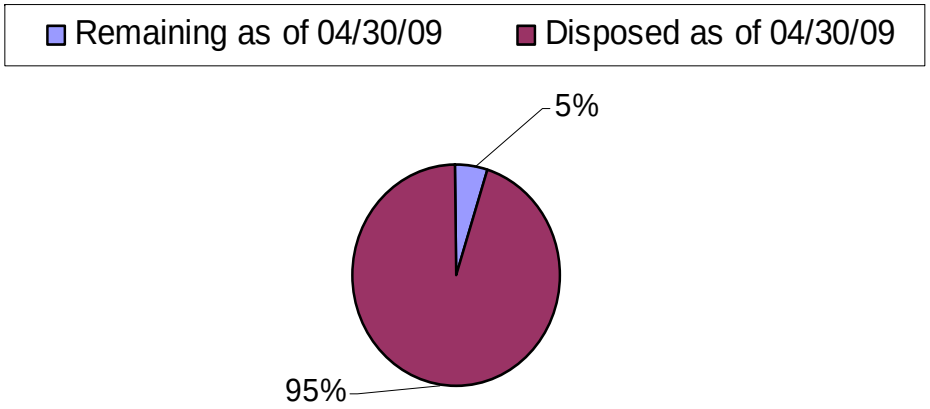
Legacy Waste

The Paducah Site stored more than 500,000 ft³ of legacy waste materials.

Fewer than 25,000 ft³ remain for disposition.

An outside storage area is shown before removal work began and as it looked in April 2009 as removal neared completion.

Legacy Waste Status – May 2009

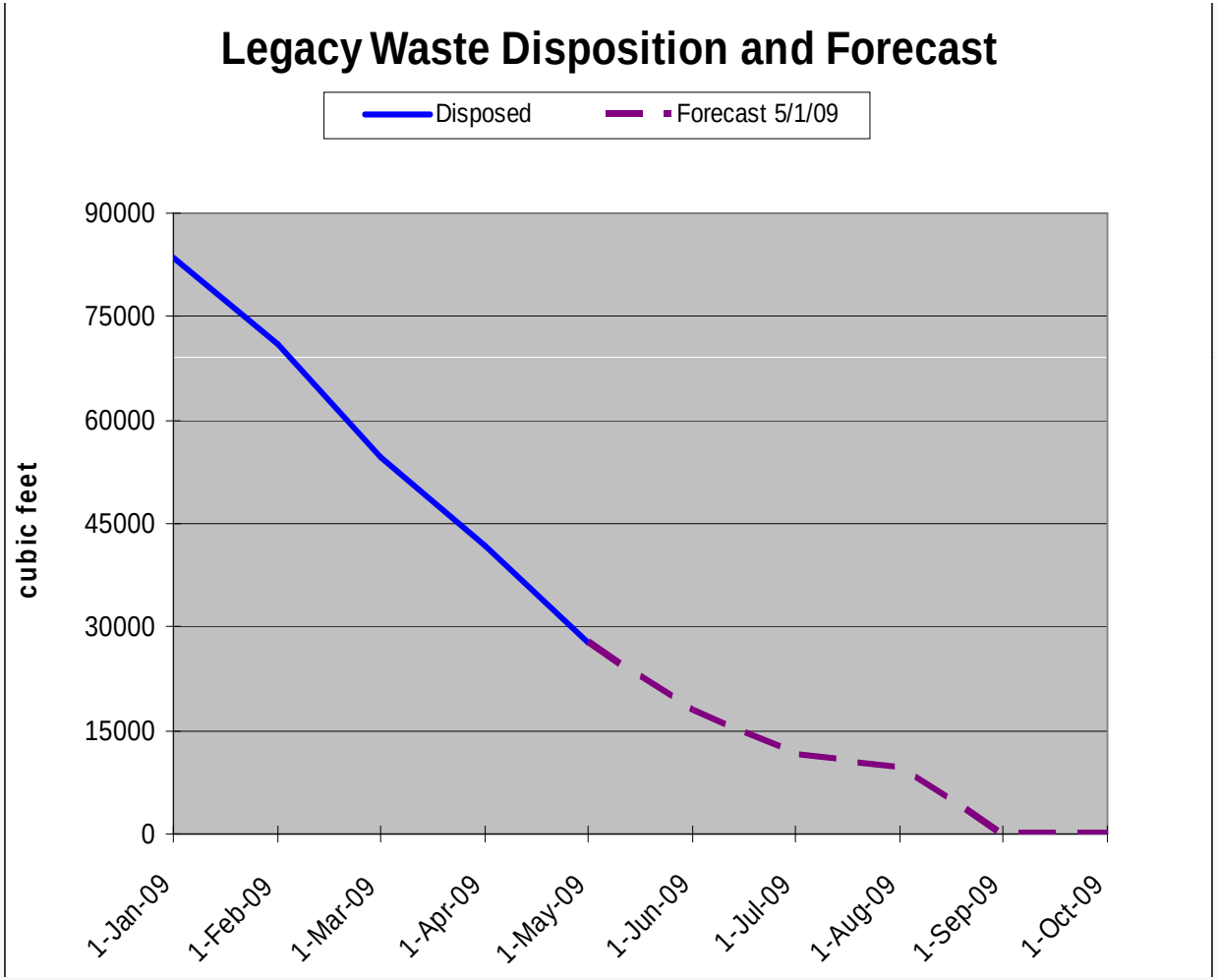


Beginning Inventory FY02 = 515,122 ft³

Legacy Waste

The schedule for completing disposition is September 2009. Material will be disposed of in C-746-U landfill or sent to off-site facilities for treatment/disposal.

2009 Legacy Waste Disposition

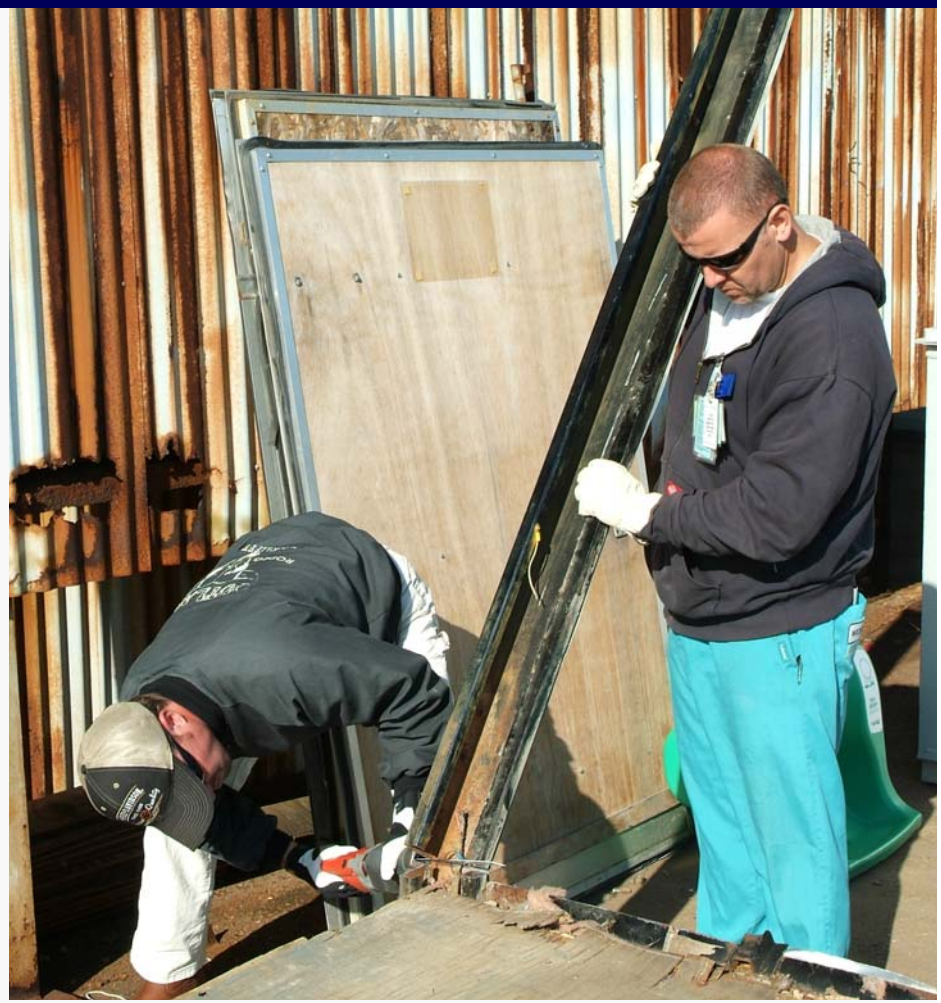


Waste material is prepared for shipment.

DOE Material Storage Areas

PRS projects characterization of all DMSA materials will be completed the last week of May.

As of the end of April 2009, only 3,000 ft^3 of 820,000 ft^3 of material remained for characterization.



Debris is moved from a DMSA for characterization.

DOE Material Storage Areas

All DMSA materials requiring disposition are scheduled to be shipped before September 30.

As of the end of April 2009, 16,000 ft^3 of the 615,000 ft^3 requiring disposition remained on the site.

DMSA material is loaded for disposition.

C-400 TCE Source Reduction

DOE is installing a system along the southern edge of the C-400 Cleaning Building that will use electrical resistance heating to vaporize the degreaser TCE that has contaminated the soil up to 100 ft below the surface.

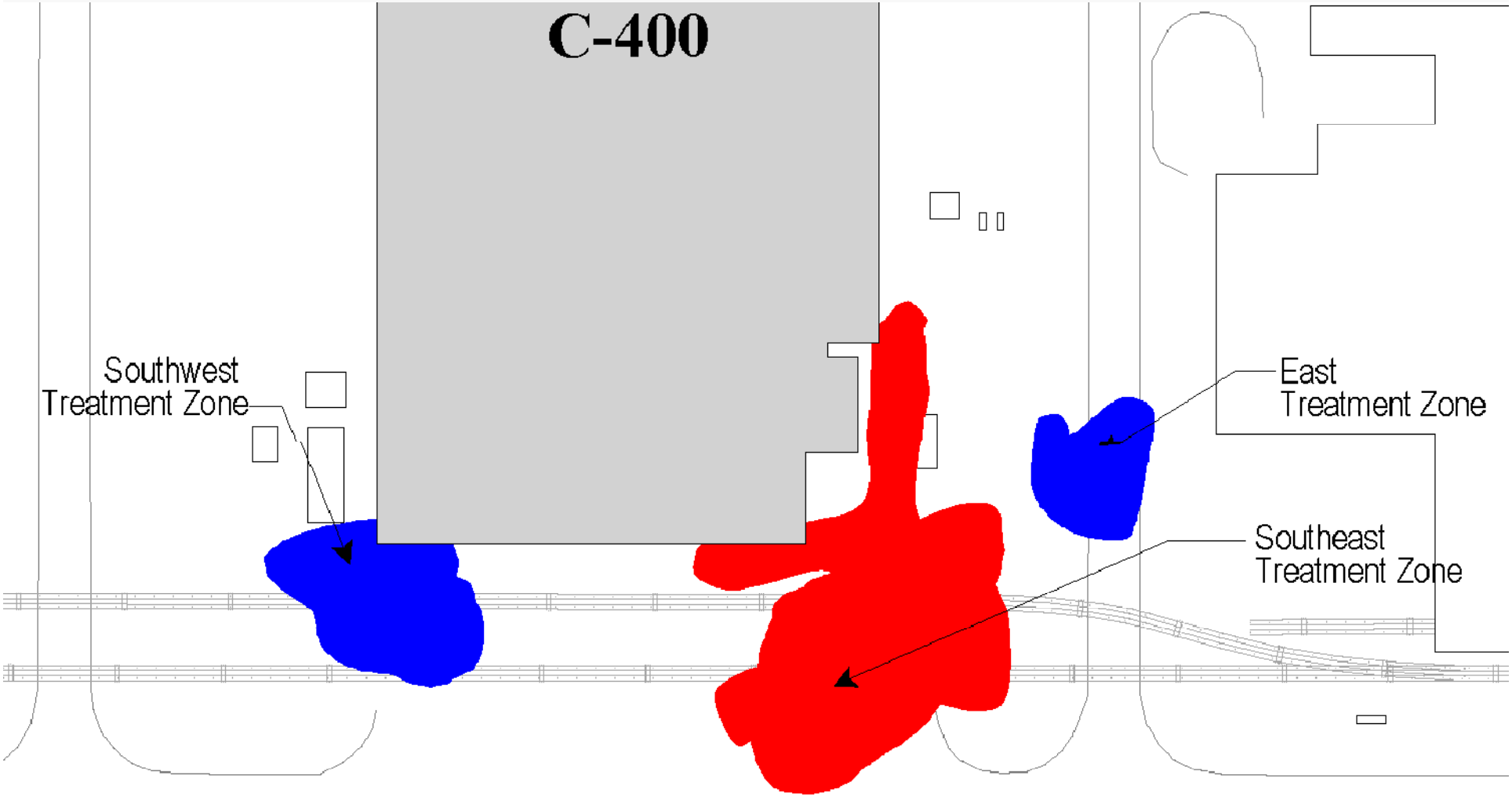
The system is being built in two phases, Phase I – to the east and southwest – and Phase II – to the southeast of C-400. The design of Phase II may be modified based on lessons learned during Phase I operations.

- Drilling and installation of Phase I electrodes more than 90% complete
- Installation of subsurface components scheduled for June completion
- Construction of surface portion of system will continue into July

Preparing to make a boring.

C-400 TCE Source Reduction

Construction and treatment in two phases: Blue area is Phase I, red area is Phase II.



C-400 TCE Source Reduction

- System testing scheduled to begin when construction is complete
- Operations targeted to begin in September

Construction of the aboveground portion of the treatment system has been completed.

American Recovery and Reinvestment Act Status

Funding to begin planning and document preparation has been received by Paducah.

- 8 people have been hired
- Another 54 scheduled to be hired by August 4
- An additional about ~100 jobs will be added later
- $78.8 million in additional funding
- Will allow 3 Paducah facilities to be removed earlier than scheduled

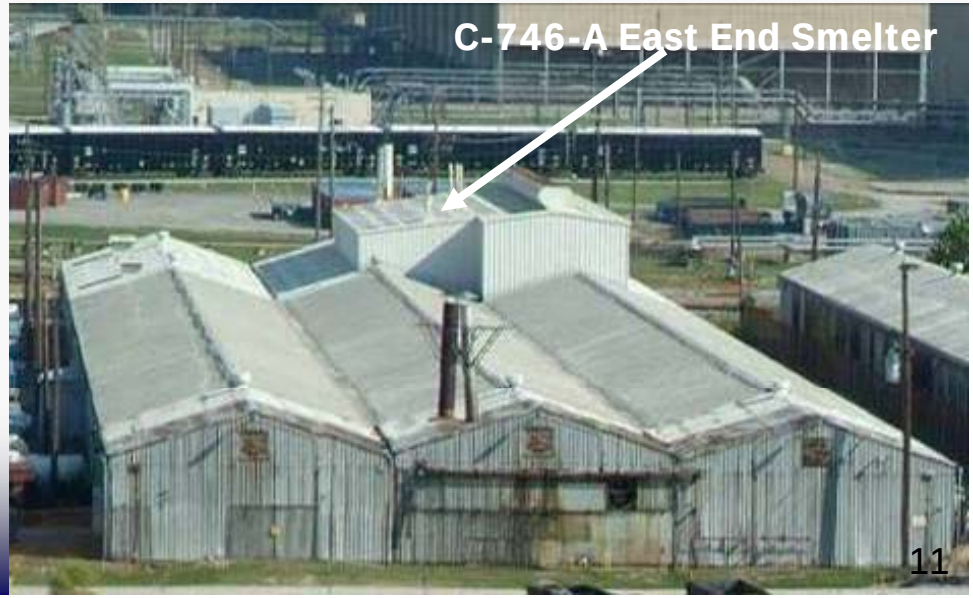
- Accelerated work on C-410 to begin late June
- All three facilities to be removed to the slab by September 30, 2011

Want more information? www.energy.gov/recovery/

American Recovery and Reinvestment Act Status

Removal actions being performed under provisions of both CERCLA and NEPA.

- Key items in the next two months include training new personnel and deploying them to Feed Plant work



Additional Information

- On May 18, DOE and PRS received a Notice of Violation related to the C-746-U Landfill permit requirements
- Notice included three issues, none relating to risks to human health or the environment
  1. Failure to perform periodic equipment inspections as required by the landfill permit
  2. Use of soils from inside the plant security fence for cover
  3. Staging of waste longer than allowed in the permit

Some of the C-746-U Landfill equipment on which periodic inspection reports were not completed.

Additional Information

The C-746-U Landfill.

Additional Information

Remedial measures required by the NOV have been completed

- Corrective actions were already in place on equipment inspections
- No additional soils from plant site are staged or scheduled for use
- Concrete stockpiled for erosion control has been placed in the landfill

Concrete rubble stockpiled for erosion control is removed for disposal in the landfill.

DOE Portsmouth / Paducah Project Office