



Blue Grass Chemical Agent-
Destruction Pilot Plant

Monthly Status Briefing

December 2011



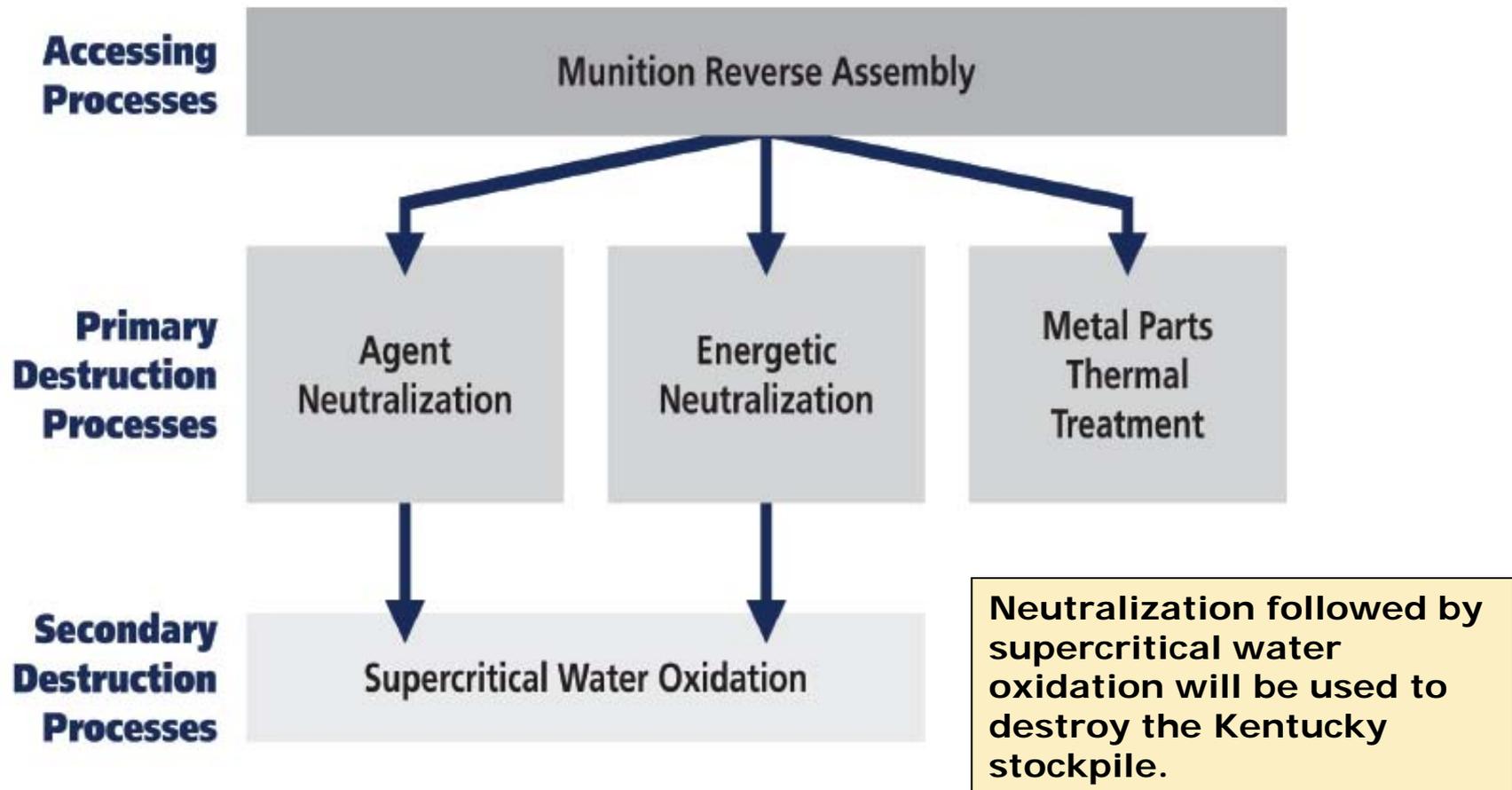
BGCAPP

Project Background

- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will safely destroy 523 tons of chemical agent in rockets and artillery projectiles stored at the Blue Grass Army Depot in Richmond, Ky.
- The technology selected by the Department of Defense to destroy the Blue Grass chemical weapons stockpile is neutralization followed by supercritical water oxidation (SCWO).
- The Assembled Chemical Weapons Alternatives (ACWA) Program, headquartered at Aberdeen Proving Ground, Maryland, is responsible for managing all aspects of the safe and environmentally sound destruction of the chemical weapons stockpiles in both Kentucky and Colorado.
- The Bechtel Parsons Blue Grass Team, a joint venture of Bechtel National, Inc., and Parsons Infrastructure and Technology Group, along with teaming partners URS Corporation, Battelle Memorial Institute, General Atomics and General Physics, is the systems contractor selected to design, build, systemize, pilot test, operate and close BGCAPP.

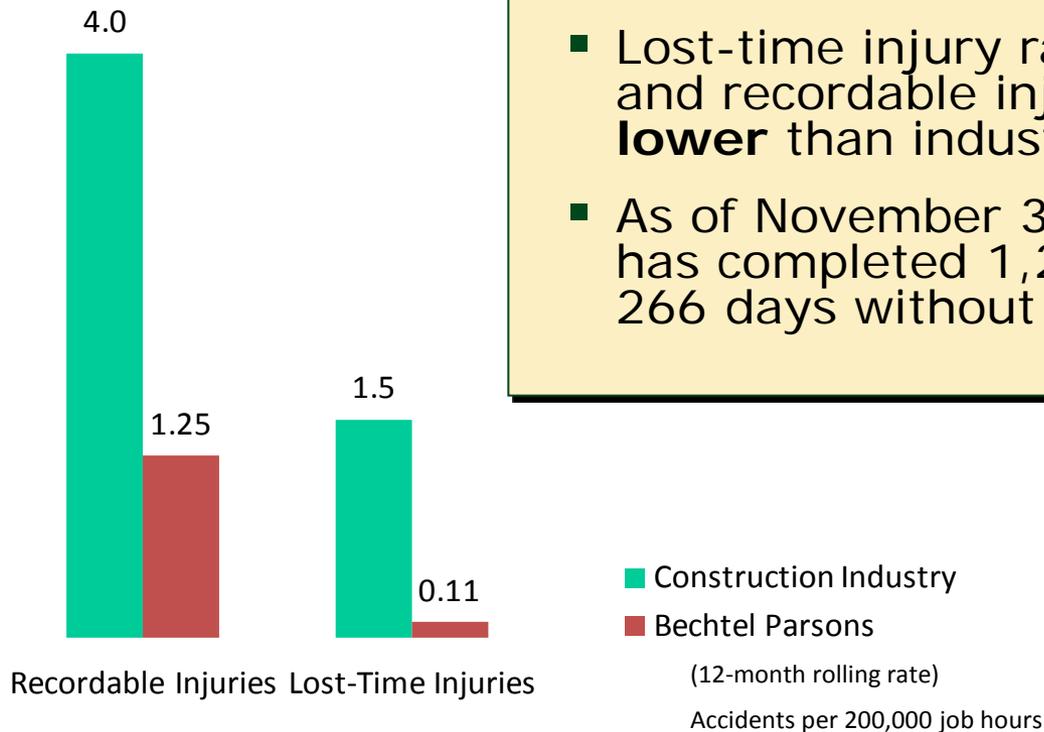


Destruction Technology



Safety

- OSHA Voluntary Protection Program Star Status site
- Lost-time injury rate **93 percent lower** and recordable injury rate **69 percent lower** than industry average
- As of November 30, 2011, the project has completed 1,296,627 hours and 266 days without a lost-time accident



Current Project Staffing

- **Total project employment—913**
- **Richmond, KY—760**
 - Nonmanual—347
 - Craft—413
 - Local hires—56 percent
- **Other locations—153**
 - Pasco, WA
 - San Diego, CA
 - Columbus, OH
 - Frederick, MD



More than 500 employees, both nonmanual and craft, are safely working at the BGCAPP construction site.

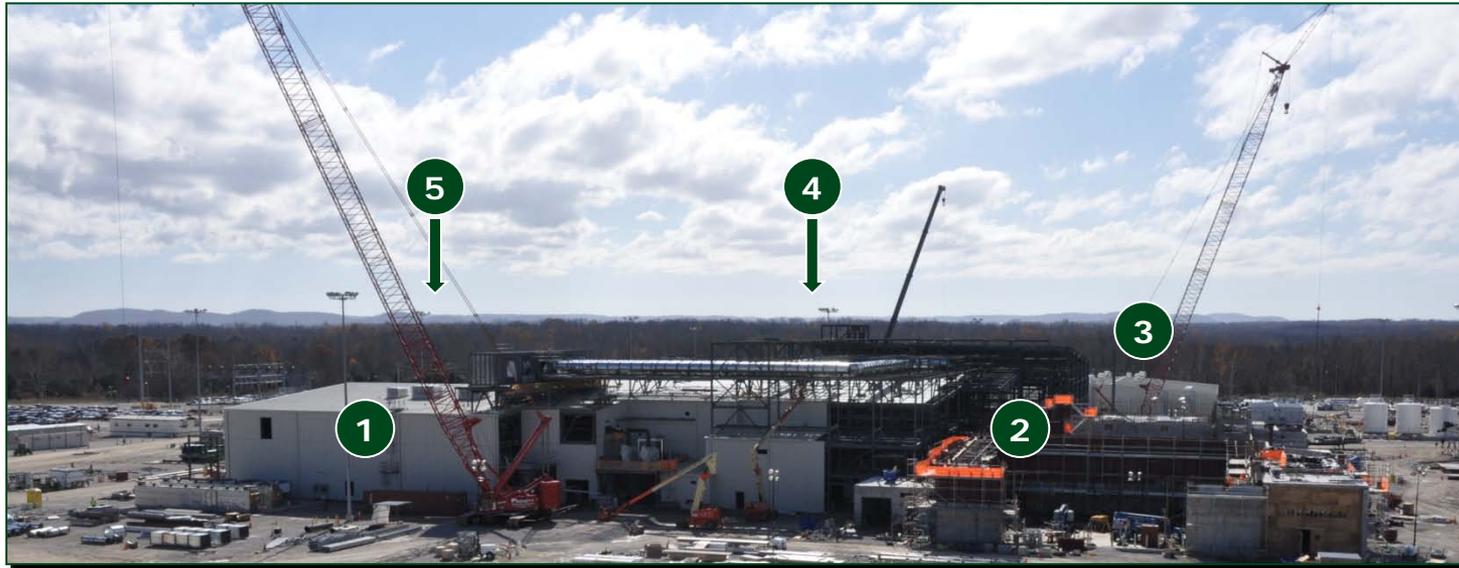
- **Acquisitions to date**

- \$77 million spent with Kentucky companies
- \$45.8 million spent in Madison and surrounding counties

- **Payroll to date**

- \$210 million of local payroll paid
- \$417 million more to be paid during the remainder of project

Construction Work in Progress



1 Control and Support Building (CSB)

- Metal wall studs, sheet rock and painting
- Electrical, piping and fire detection systems
- Heating, ventilation and air conditioning (HVAC)

3 Utility Building

- Electrical, piping and HVAC systems
- Concrete pads for exterior utilities
- Bulk chemical storage tanks

2 Munitions Demilitarization Building (MDB)

- First and second lift concrete placements
- Structural steel and wall paneling
- Electrical and piping systems
- Vessels and tanks, and protective coatings

4 Supercritical Water Oxidation (SCWO) Process Building (not visible in photo)

- Pipe rack steel and equipment tanks

5 Laboratory Building (not visible in photo)

- Concrete foundation complete
- Fabrication and delivery of 20 building modules

Control and Support Building (CSB)



A Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) utility power center (above left) has been constructed while work continues on exterior portions of the CSB. Inside the CSB, workers review plans for rooms (above right) that will be occupied by future BGCAPP operations personnel. Once complete, the CSB will house the control room and integrated control system used to operate BGCAPP.

Munitions Demilitarization Building (MDB)



Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Energetics Batch Hydrolyzer (EBH) units (above left) are staged at the MDB and await installation. During BGCAPP operations, an automated process will remove the weapons' explosive components, which will be transferred to EBHs where the energetics and any residual agent will be neutralized. MDB concrete placement, structural steel erection and panel siding activities continue (above right). The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.

Supercritical Water Oxidation (SCWO) Process and Laboratory buildings



An aluminum filtration system tank along with hydrolysate blend and holding tanks are staged for installation at the SCWO Process Building (above left). Meanwhile, at a fabrication facility in Elkhart, IN., the Laboratory Building's 20 modular components (above right) are ready for shipment to the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). The SCWO Process Building will house the reactors where agent and energetic hydrolysates, byproducts of the neutralization process, will be subjected to very high temperatures and pressures to destroy the hydrolysates' organic content. The Laboratory will handle and analyze low concentrations of chemical agent when BGCAPP operations begin.

Bulk Chemical Storage (BCS) area and Utility Building (UB)



Adjacent to the UB, Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) workers are safely installing formwork (above left) for more BCS area concrete placements where future tanks will reside. Inside the UB, workers are welding piping infrastructure into place (above right). Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations. The BCS area will house chemicals required to support the neutralization followed by SCWO process.

Blue Grass Chemical Agent-Destruction Pilot Plant

