



Blue Grass Chemical Agent-  
Destruction Pilot Plant

# Monthly Status Briefing

*November 2011*



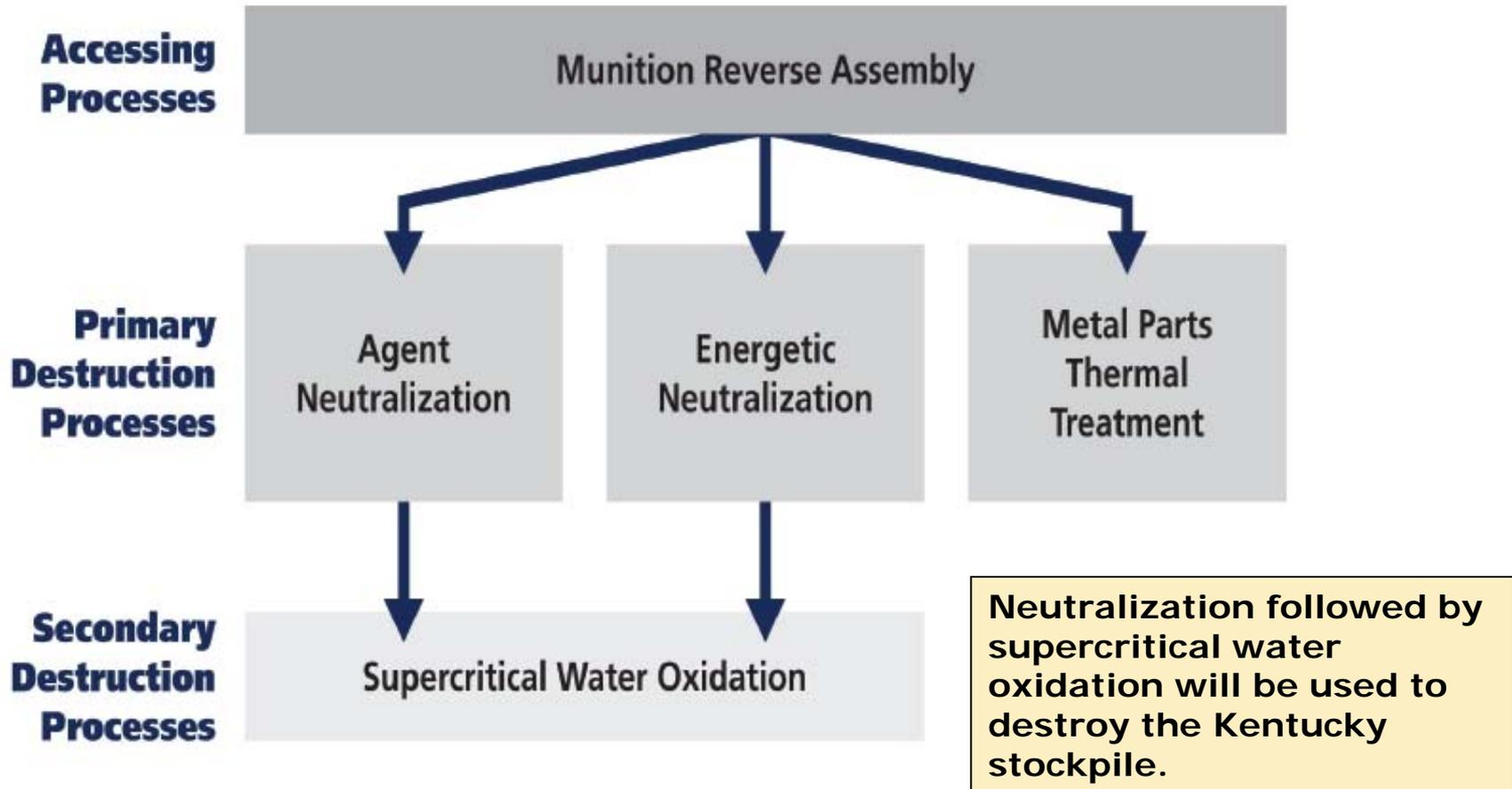
**BGCAPP**

# Project Background

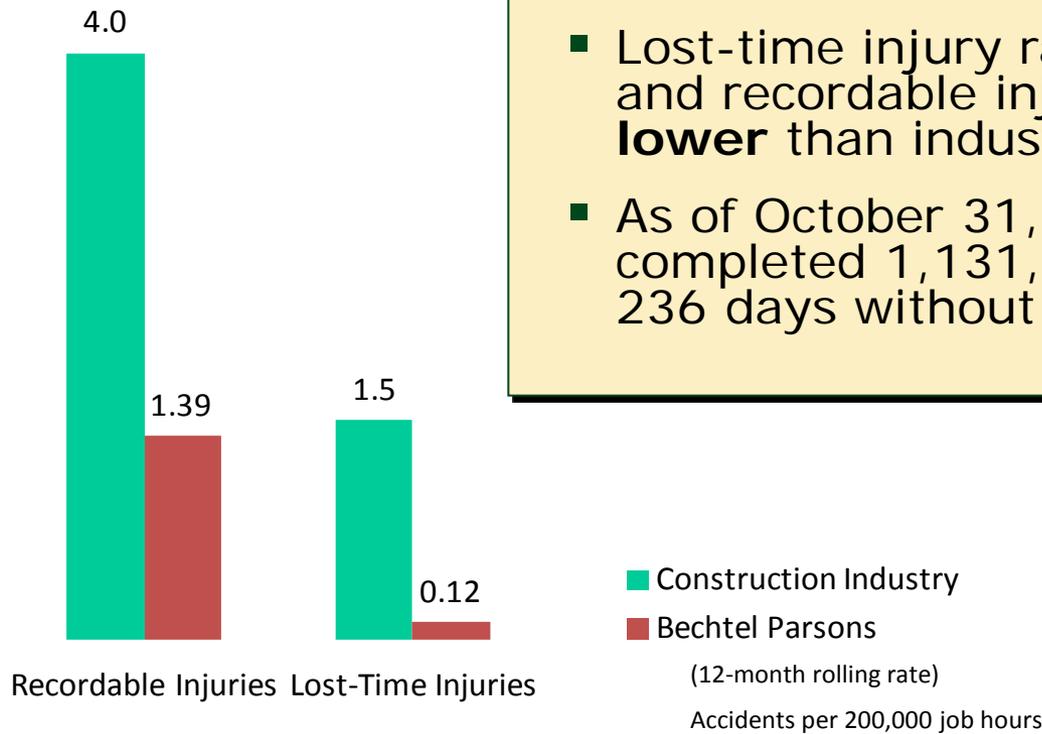
- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will safely destroy 523 tons of chemical agent in rockets and artillery projectiles stored at the Blue Grass Army Depot in Richmond, Ky.
- The technology selected by the Department of Defense to destroy the Blue Grass chemical weapons stockpile 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

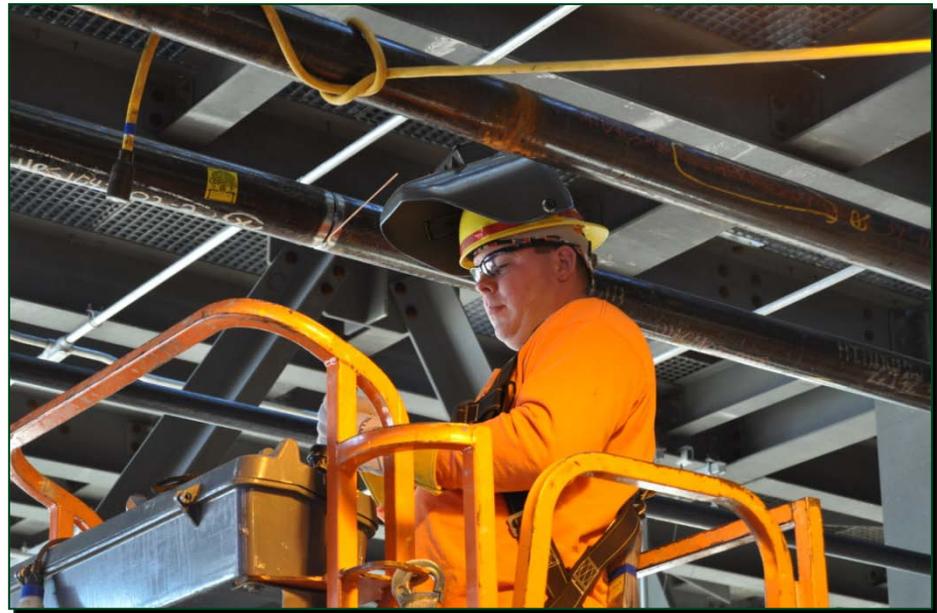


- Awarded OSHA Voluntary Protection Program Star Status
- Lost-time injury rate **92 percent lower** and recordable injury rate **65 percent lower** than industry average
- As of October 31, 2011, the project has completed 1,131,624 hours and 236 days without a lost-time accident



# Current Project Staffing

- **Total project employment—913**
- **Richmond, KY—750**
  - Nonmanual—404
  - Craft—346
  - Local hires—56 percent
- **Other locations—163**
  - Pasco, WA
  - San Diego, CA
  - Columbus, OH
  - Frederick, MD



More than half of the BGCAPP workforce in Richmond are local hires.

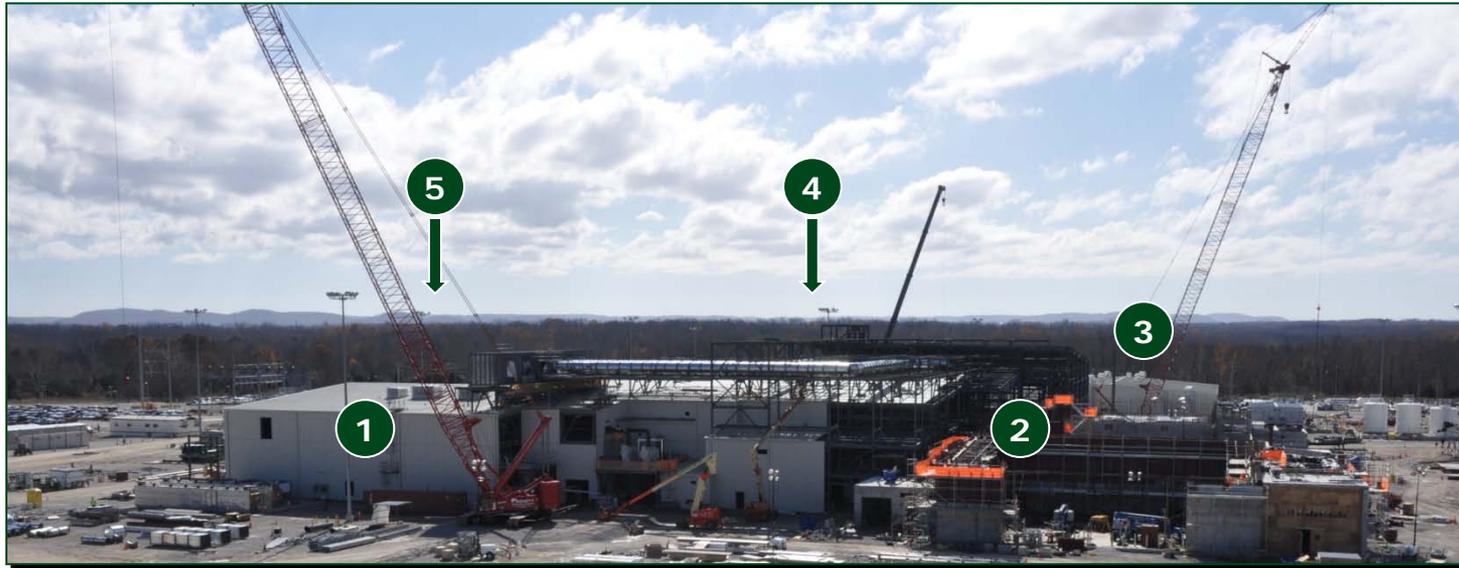
## ■ Acquisitions to date

- \$76.5 million spent with Kentucky companies
- \$45.5 million spent in Madison and surrounding counties

## ■ Payroll to date

- \$207 million of local payroll paid
- \$420 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
- Interior room painting
- 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

## 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
- Awaiting building modules

# Control and Support Building (CSB)



The CSB interior controls rooms (above left) are taking shape as BGCAPP craft workers are installing electrical conduit and other commodities inside the building. Outside the CSB (above right), piping and cable tray are being installed within support steel that will carry utilities such as chilled water and steam to support plant operations. Once complete, the CSB will house the control room and integrated control system used to operate BGCAPP.

# Munitions Demilitarization Building (MDB)



**BGCAPP craft workers (above left) have begun side paneling installations over the erected MDB structural steel that surrounds a portion of the environmental air pollution control system. Meanwhile, workers (above right) are performing penetration welding activities inside the MDB explosive containment vestibules and rooms. The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.**

# Supercritical Water Oxidation (SCWO) Process Building



A number of hydrolysate blend and holding tanks have arrived at the BGCAPP construction site and are staged for future installation at the SCWO Process Building (above left). BGCAPP workers (above right) are also preparing installed SCWO process tanks for future grouting and protective coatings applications. 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.

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



Inside the UB (above left) BGCAPP craft workers are installing piping systems. Outside the UB (above right), an adjacent utility power center and a series of bulk chemical storage area tanks have been erected. Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations. The BCS area will house four distinct chemicals required to support the neutralization followed by SCWO process.

# Blue Grass Chemical Agent-Destruction Pilot Plant

