



Blue Grass Chemical Agent-
Destruction Pilot Plant

Monthly Status Briefing

January 2012



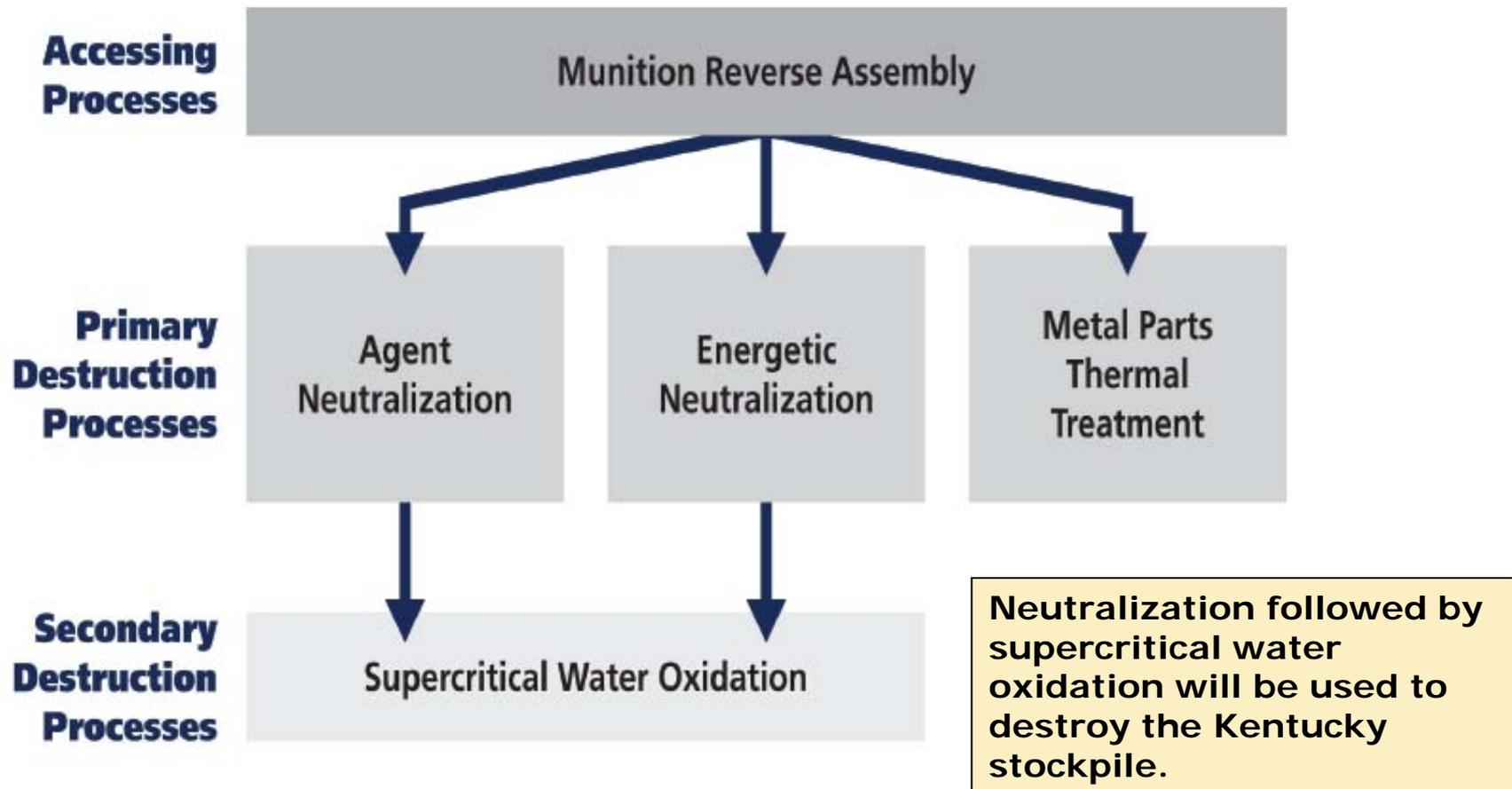
BGCAPP

Project Background

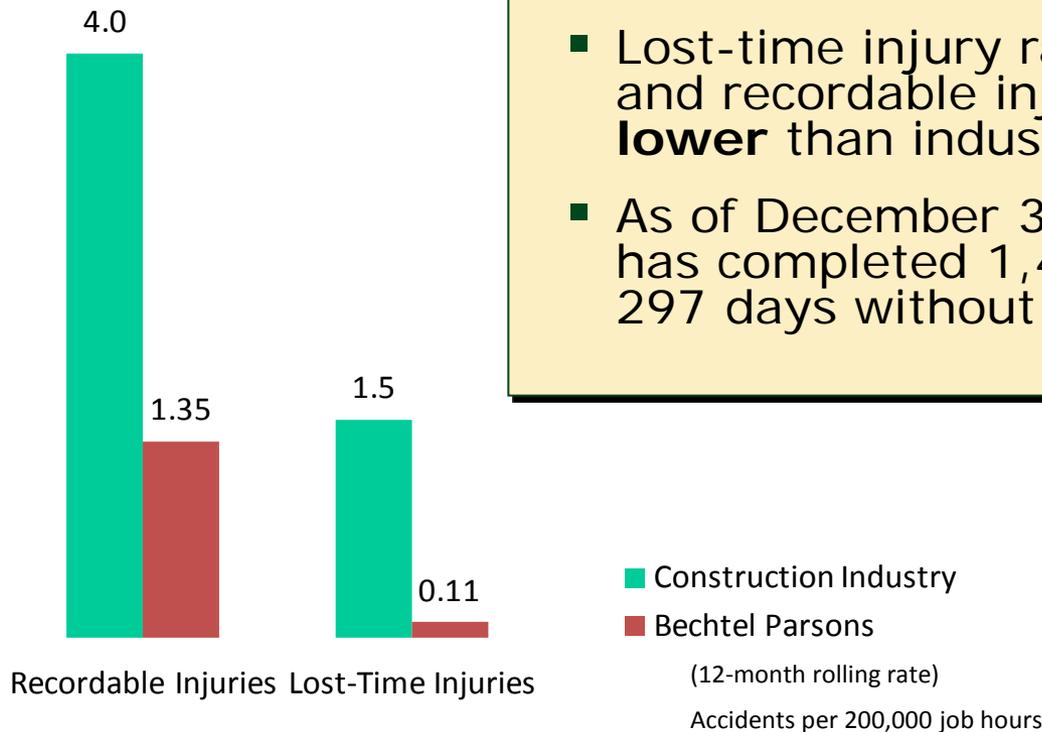
- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will safely destroy 523 tons of chemical agent in rockets and artillery projectiles stored at the Blue Grass Army Depot in Richmond, Ky.
- The technology selected by the Department of Defense to destroy the Blue Grass chemical weapons stockpile 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 **66 percent lower** than industry average
- As of December 31, 2011, the project has completed 1,499,167 hours and 297 days without a lost-time accident



Current Project Staffing

- **Total project employment—910**
- **Richmond, KY—766**
 - Nonmanual—422
 - Craft—344
 - Local hires—55 percent
- **Other locations—144**
 - Pasco, WA
 - San Diego, CA
 - Columbus, OH
 - Frederick, MD



The Blue Grass Chemical Agent-Destruction Pilot Plant employs 766 people in Richmond, KY.

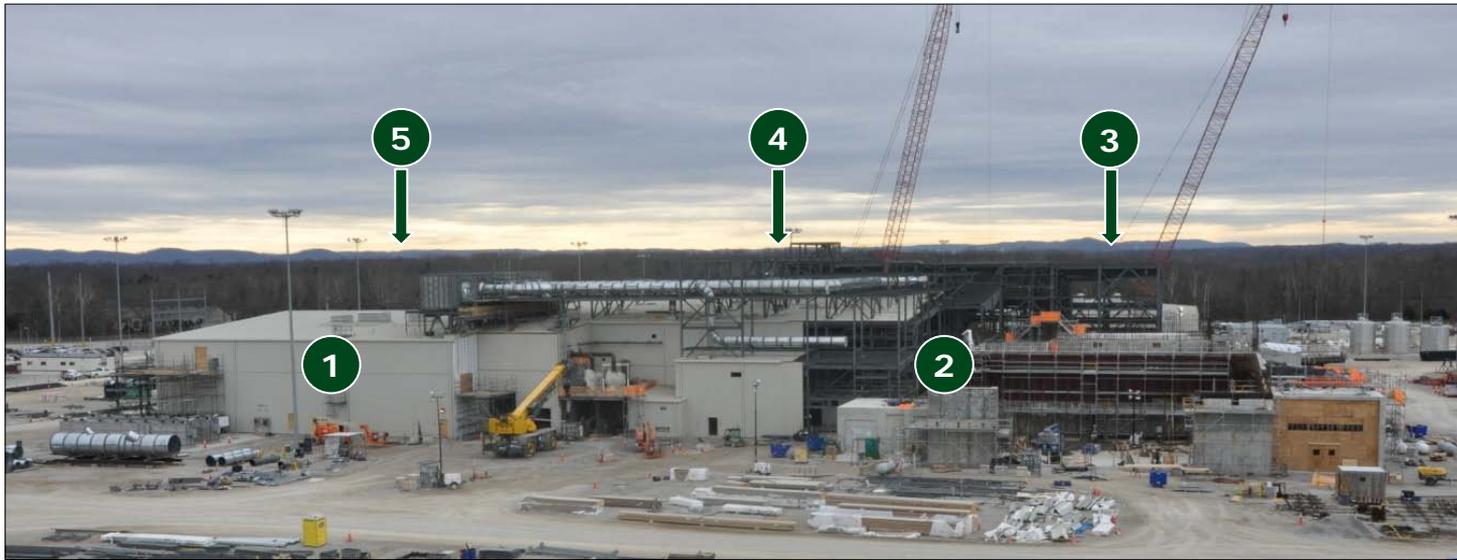
- **Acquisitions to date**

- \$77.7 million spent with Kentucky companies
- \$46.1 million spent in Madison and surrounding counties

- **Payroll to date**

- \$213 million of local payroll paid
- \$414 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 (not visible in photo)

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

2 Munitions Demilitarization Building (MDB)

- First and second lift concrete placements
- Structural steel and wall paneling
- Electrical and piping systems
- Protective coatings and blast gates

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

- Protective coatings and equipment tanks

5 Laboratory Building (not visible in photo)

- Concrete foundation complete
- Delivery and placement of 20 building modules

Control and Support Building (CSB)



A Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) craft worker installs electrical systems support infrastructure (above left) inside the CSB. Outside the CSB, craft workers install heating, ventilation and air conditioning systems (above right) atop the building's roof. 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) craft workers continue concrete preparation activities by installing formwork (above left) for future concrete placements. Workers have begun applying protective coatings (above right) to finished concrete inside the MBD's concrete blast-containment area. The protective coatings prevent unwanted liquids from migrating into the concrete during plant operations. 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



A Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) worker performs concrete finishing work (above left) at the SCWO Processing Building to prepare the area for future protective coatings application. The BGCAPP construction team received the Laboratory Building's 20 modular components (above right) throughout December and January. 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 have safely erected, tested and painted three BCS area tanks. Inside the UB, workers are welding and fitting up chilled water process piping (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

