



Blue Grass Chemical Agent-
Destruction Pilot Plant

Monthly Status Briefing

March 2012



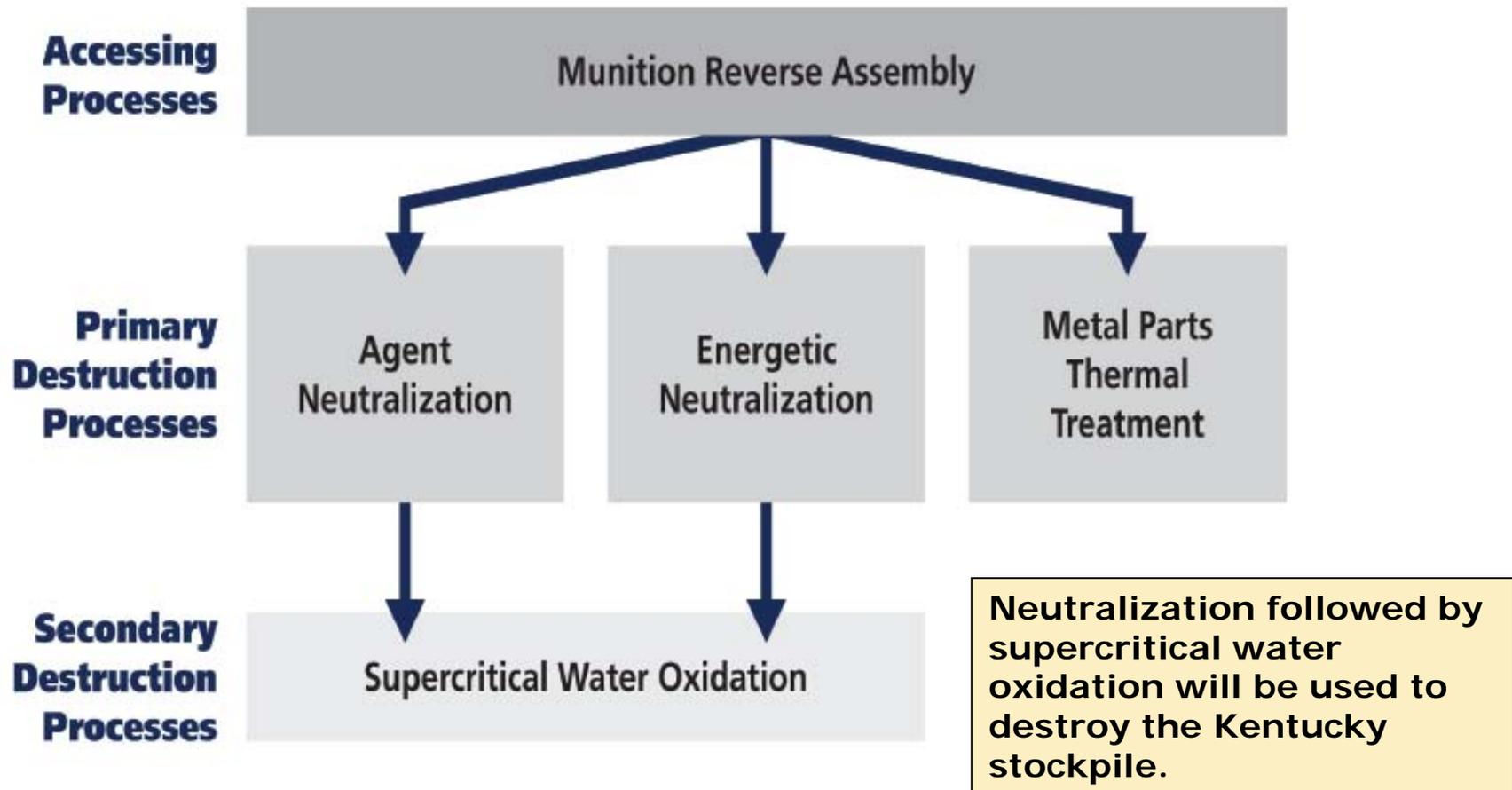
BGCAPP

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.

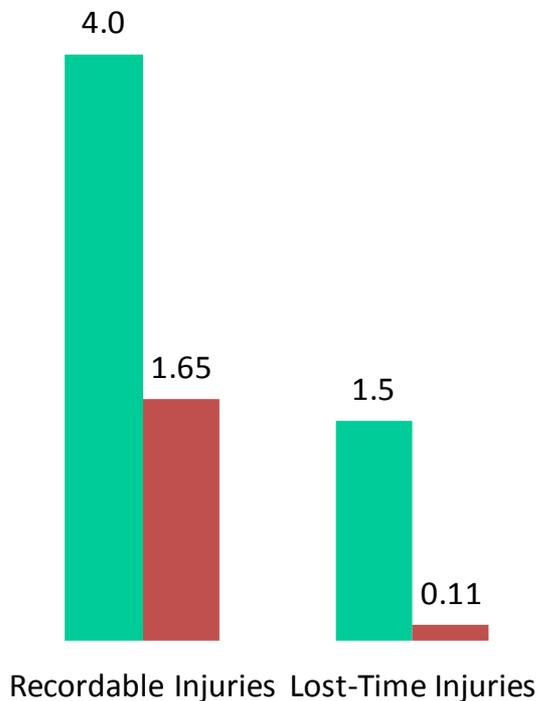


Destruction Technology

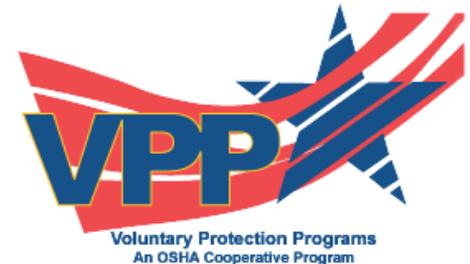


Safety

- Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate **93 percent lower** than industry average and recordable injury rate **59 percent lower** than industry average
- As of February 29, 2012, the project has completed 1,801,476 hours and 357 days without a lost-time accident



■ Construction Industry
■ Bechtel Parsons
(12-month rolling rate)
Accidents per 200,000 job hours



Current Project Staffing

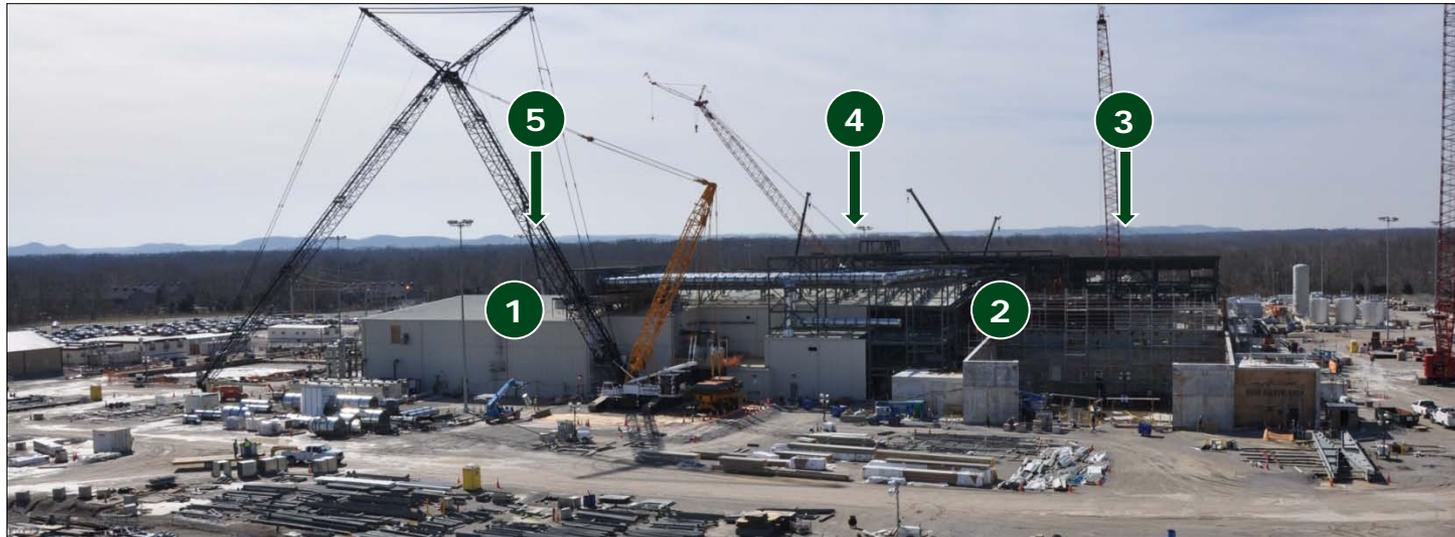
- **Total project employment—850**
- **Richmond, KY—809**
 - Nonmanual—424
 - Craft—385
 - Local hires—57 percent
- **Other locations—41**
 - Pasco, WA
 - San Diego, CA
 - Columbus, OH
 - Frederick, MD



385 craft workers are safely working at the Blue Grass Chemical Agent-Destruction Pilot Plant construction site.

- **Acquisitions to date**
 - \$78.7 million spent with Kentucky companies
 - \$46.5 million spent in Madison and surrounding counties
- **Payroll to date** (includes non-manual and craft)
 - \$310.5 million of local payroll paid
 - \$499.5 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)**
 - Second lift concrete placements
 - Structural steel and interior wall paneling
 - Electrical, piping, mechanical systems
 - HVAC systems and protective coatings
- 4 Supercritical Water Oxidation (SCWO) Process Building** (not visible in photo)
 - Structural steel, process tanks and equipment
- 5 Laboratory Building** (not visible in photo)
 - Assembling 20 building modules atop foundation
 - Communications cable

Control and Support Building (CSB)



CSB control system and operations rooms (above left) are receiving final sheet rock installation and painting work has begun. Elsewhere inside the CSB, craft workers are installing metal wall studs (above right) to prepare future operations areas. Once complete, the CSB will house the control room and integrated control system used to operate BGCAPP.

Munitions Demilitarization Building (MDB)



Craft workers continue preparing for more elevated concrete wall placements by installing reinforcing steel and formwork (above left). Craft workers also continue installing structural steel around the agent neutralization system equipment (above right). The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.

Supercritical Water Oxidation (SCWO) Process Building



Craft workers safely lower two aluminum precipitation reactors (above left) into the SCWO Process Building. The reactors will separate aluminum particles from energetics hydrolysate during plant operations. Wrapped in protective sheathing, a series of hydrolysate blend and holding tanks (above right) are placed upon the SCWO Process Building foundation. The tanks will be used to create the appropriate batches of hydrolysate for the SCWO process during plant operations. 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.

Laboratory Building and Utility Building (UB)



Craft workers are installing heating, ventilation and air conditioning systems atop the Laboratory Building roof (above left). Adjacent to the UB, concrete piers have been placed (above right) for future support steel that will carry utilities such as chilled water and steam to support plant operations. During operations, the Laboratory will perform many vital functions including verification of agent destruction before agent and energetic hydrolysates, byproducts of the neutralization process, are emptied into hydrolysate holding tanks to await transfer to the Supercritical Water Oxidation Process Building. Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations.

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