

Monthly Status Briefing

November 2012



Blue Grass Chemical Agent-Destruction Pilot Plant



Program Executive Office
Assembled Chemical Weapons Alternatives



BGCAPP
Blue Grass Chemical
Agent-Destruction Pilot Plant

www.peoacwa.army.mil



A PARTNERSHIP FOR SAFE CHEMICAL WEAPONS DESTRUCTION

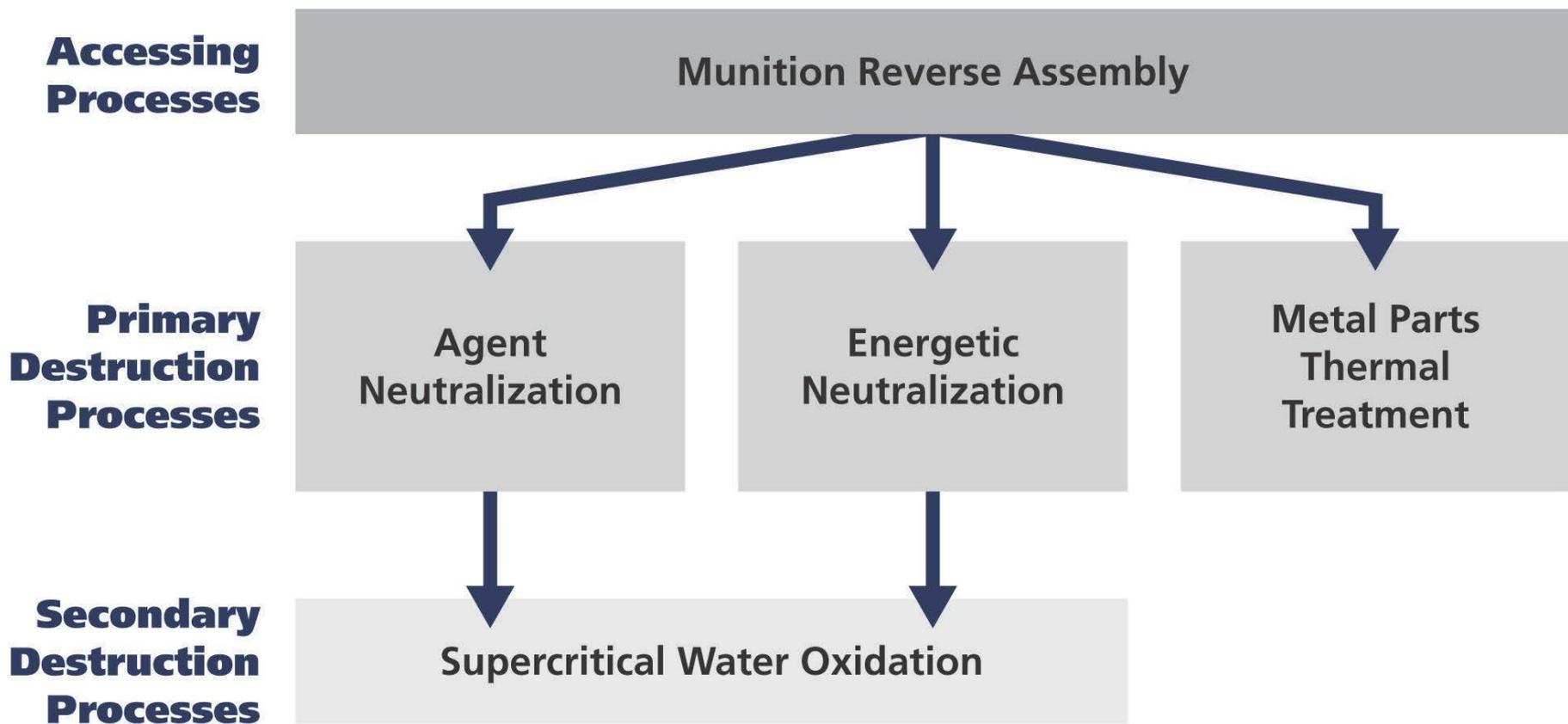
Project Background

- 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 Program Executive Office, Assembled Chemical Weapons Alternatives (PEO 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 Government Services Inc., along with teaming partners URS Corporation, Battelle, General Atomics and GP Strategies Corporation, is the systems contractor selected to design, build, systemize, pilot test, operate and close BGCAPP.

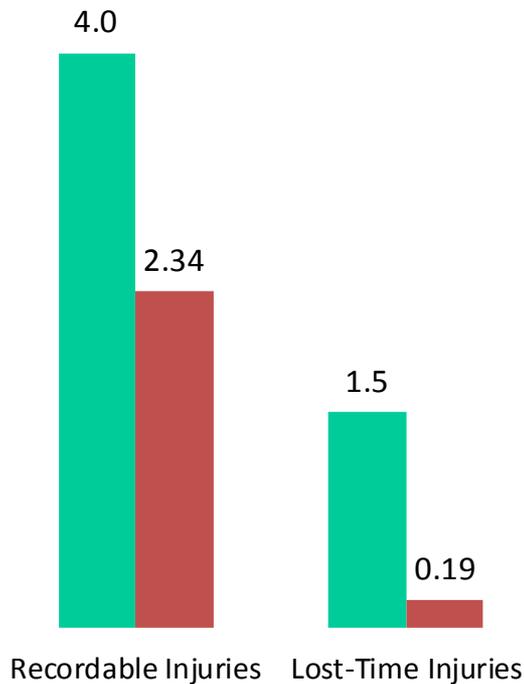


Destruction Technology

Neutralization followed by supercritical water oxidation will be used to destroy the Kentucky stockpile.

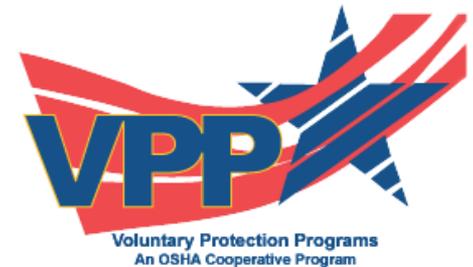


Safety



- Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate is **87 percent lower** and recordable injury rate **42 percent lower** than industry average
- As of October 31, 2012, the project has completed 701,115 hours and 139 days without a lost-time accident

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



Continued Safety Focus

- **Safety remains a core value of the project workforce**
- **Management and employees focusing on goal of *Zero Accidents*:**
 - Communicating and re-emphasizing proper construction housekeeping, its relationship to safety excellence and need for continuous improvement
 - Communicating and re-emphasizing importance of pre-planning and discussing daily work activities; identifying potential safety hazards before work begins
 - Communicating and reviewing recent Occupational Safety & Health Administration recordable injuries and re-emphasizing employees' roles and responsibilities to follow work procedures and analyze for potential hazards before work begins

Current Project Staffing

- **Total project employment—1,063**
- **Richmond, Ky.—999**
 - Nonmanual—508
 - Craft—491
 - Local hires—58 percent
- **Other locations—64**
 - Pasco, Wash.
 - San Diego, Calif.
 - Columbus, Ohio
 - Frederick, Md.



BGCAPP craft workers review drawings inside the Control and Support Building before installing electrical systems.

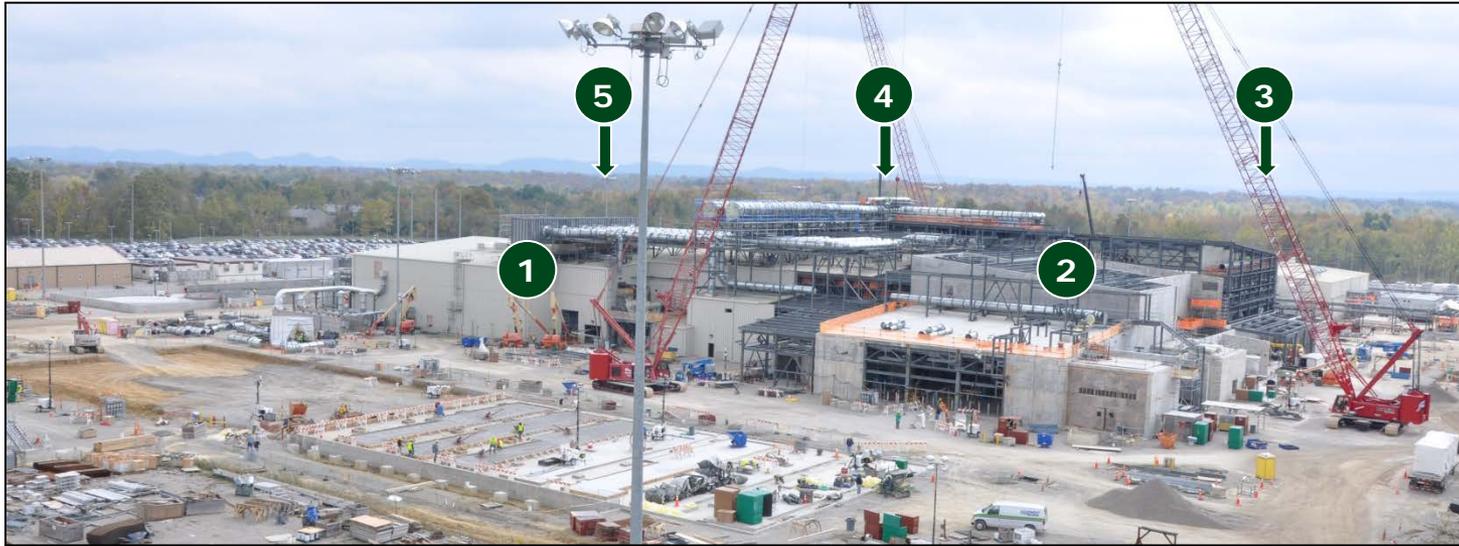
- **Acquisitions to date**

- \$102.7 million spent with Kentucky companies
- \$62.8 million spent in Madison and surrounding counties

- **Payroll to date** (includes nonmanual and craft)

- \$373 million of local payroll paid
- \$437 million more to be paid during the remainder of project

Construction Work in Progress



- 1 Control and Support Building (CSB)**
- Electrical, piping and fire detection systems
 - Heating, ventilation and air conditioning (HVAC)
 - Facility control system cabinets and infrastructure

- 2 Munitions Demilitarization Building (MDB)**
- Structural steel, paneling, protective coatings
 - HVAC, electrical, piping, mechanical systems
 - MDB filter area foundations and filters

- 3 Utility Building**
- Exterior pipe rack support steel
 - Interior electrical and piping systems
 - Nitrogen generation plant equipment

- 4 Supercritical Water Oxidation (SCWO) Process Building** (not visible in photo)
- Exterior siding and pipe rack support steel

- 5 Laboratory Building** (not visible in photo)
- Construction and systemization complete
 - Systemization personnel occupancy

Control and Support Building (CSB)



A craft worker prepares a large section of heating, ventilation and air conditioning ductwork (above left) for future installation atop the CSB. Inside the CSB, a craft worker installs piping (above right) that will carry water to future operations worker change rooms. Once complete, the CSB will house the control room and the integrated control system used to operate the plant.

Munitions Demilitarization Building (MDB)



A BGCAPP craft worker welds metal plating (above left) embedded within the MDB's completed concrete infrastructure. Within the energetics neutralization reactors room, craft workers fasten metal trimming (above right) to installed paneling. The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.

Supercritical Water Oxidation (SCWO) Process Building and Hydrolysate Storage Area (HSA)



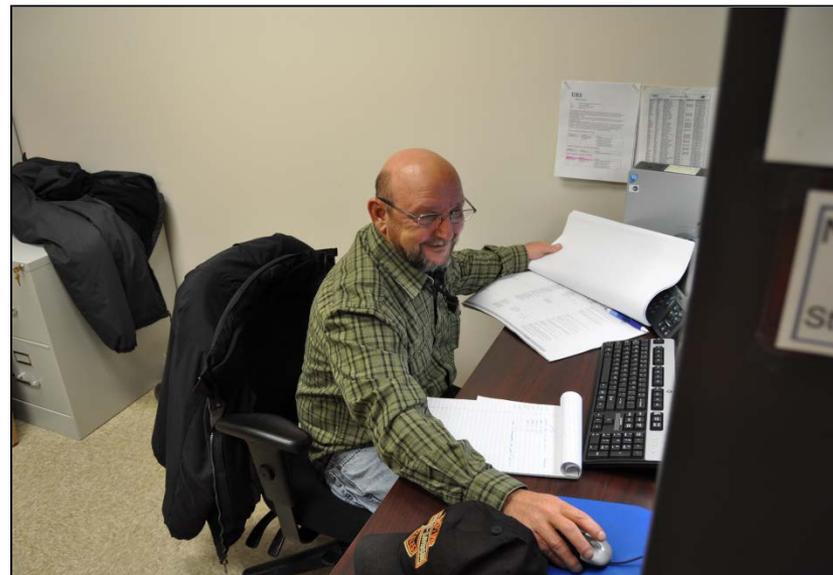
Exterior siding installation work (above left) begins at the SCWO Process Building. At the completed HSA concrete foundation, workers begin erecting and welding five large hydrolysate storage tanks (above right). During operations, agent and energetic hydrolysates, byproducts of the neutralization process, are emptied into HSA holding tanks once agent destruction is verified. The hydrolysate is transferred to the SCWO Process Building which houses the reactors where agent and energetic hydrolysates will be subjected to very high temperatures and pressures to destroy their organic content.

Utility Building (UB)



A large pipe rack (above left) to carry utilities for plant operations is being erected around the UB. Adjacent to the UB, workers are installing tanks and equipment for the nitrogen generation plant (above right). Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations. The nitrogen generation plant will supply nitrogen, an inert and non-flammable gas, during plant operations to maintain a combustion-free environment.

Laboratory Building



Construction and systemization activities for the BGCAPP Laboratory (above left) are complete. Systemization personnel (above right) are utilizing the Laboratory's new office space to support additional BGCAPP systemization activities. During operations, the Laboratory's functions will include verifying agent destruction before hydrolysates are emptied into HSA holding tanks to await transfer to the Supercritical Water Oxidation Process Building.

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