

Monthly Status Briefing

January 2013



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

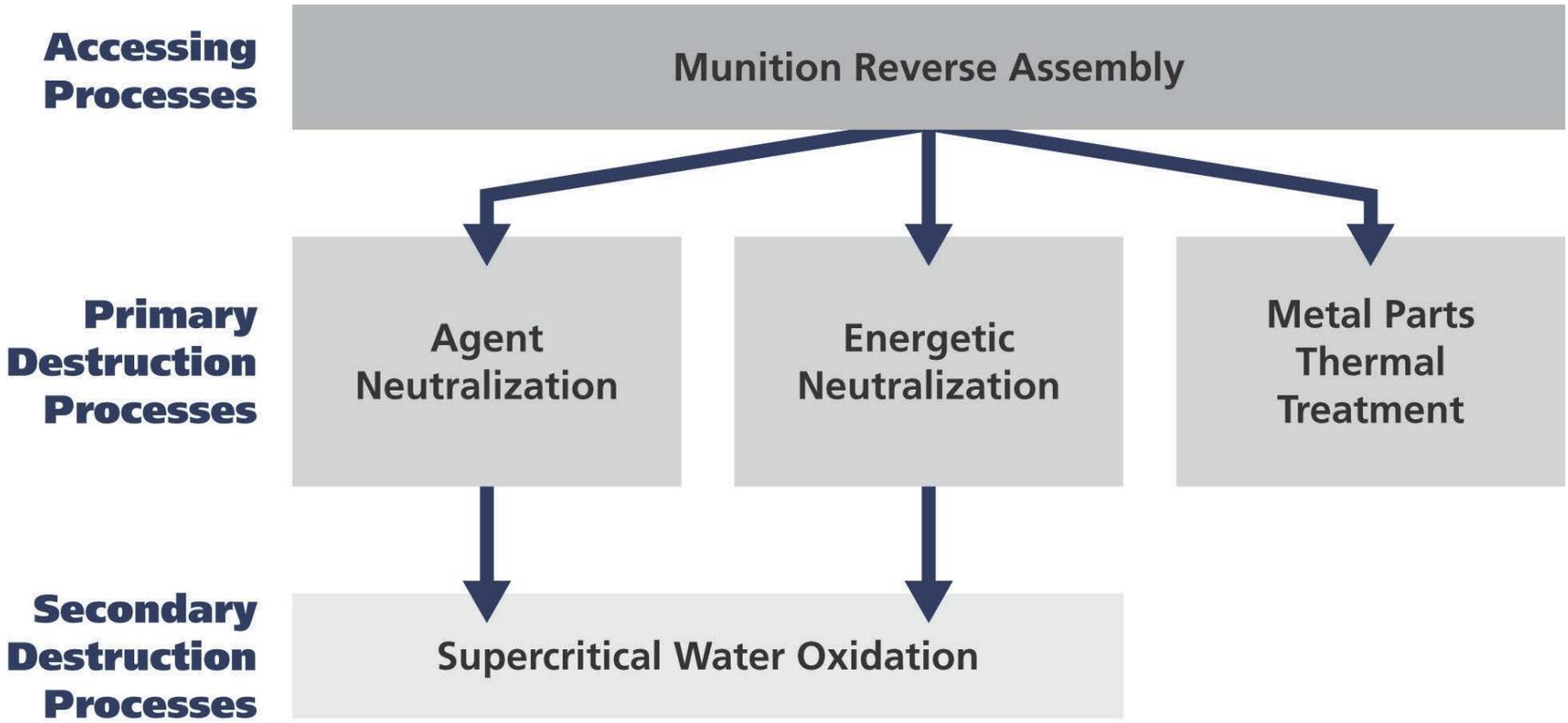
Project Background

- 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, Md., 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.

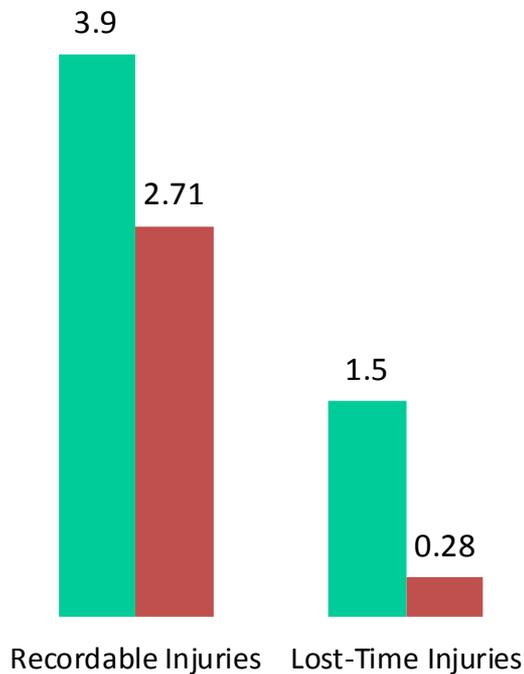


Destruction Technology

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

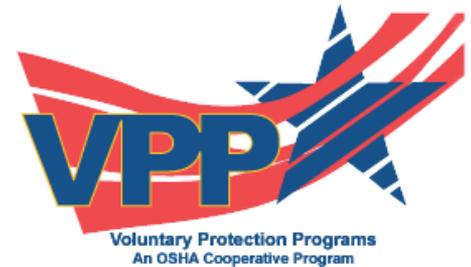


Safety



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

- Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate is **81 percent lower** and recordable injury rate **31 percent lower** than industry average
- As of December 31, 2012, the project has completed 167,299 hours and 51 days without a lost-time accident



Continued Safety Focus

- **Safety remains a core value of the project workforce**
- **Workforce committed to a *Brother's Keeper* mindset**
 - Culture of mentoring one another, remaining vigilant and respectfully challenging unsafe workplace behaviors
- **Management and employees focusing on goal of *Zero Accidents*:**
 - Communicating proper construction techniques, their relationship to safety excellence and need for continuous improvement
 - Communicating importance of pre-planning and discussing daily work activities; identifying potential safety hazards before work begins



Current Project Staffing

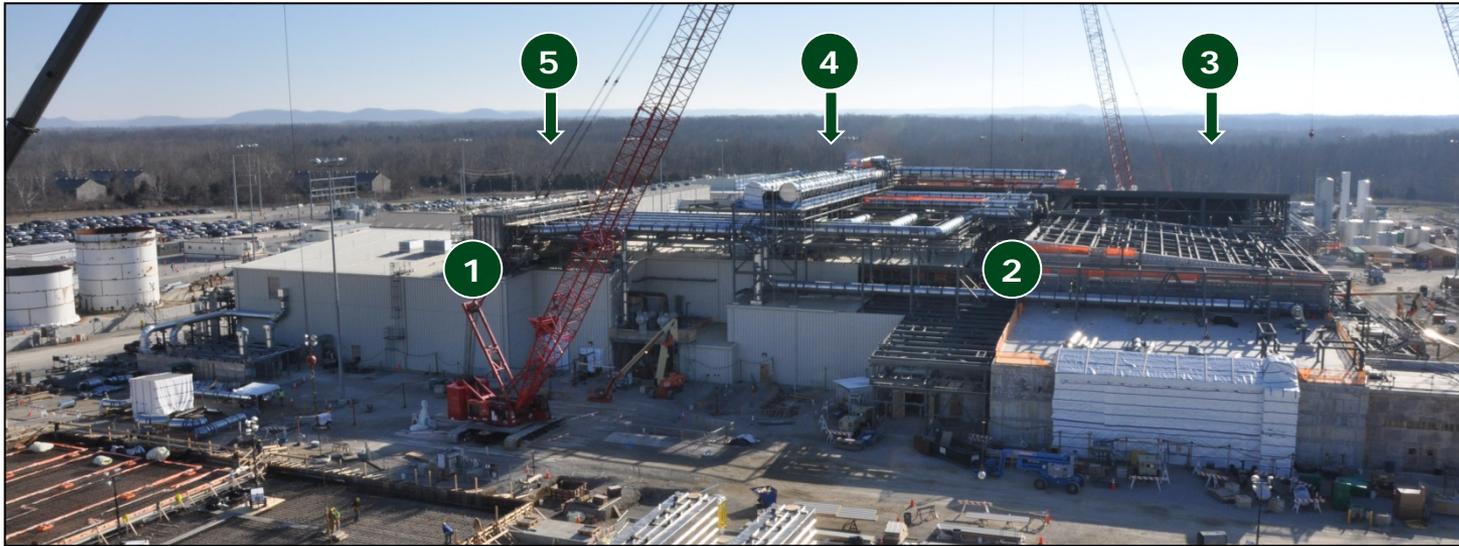
- **Total project employment—1,054**
- **Richmond, Ky.—995**
 - Nonmanual—525
 - Craft—470
 - Local hires—57 percent
- **Other locations—59**
 - Pasco, Wash.
 - San Diego, Calif.
 - Columbus, Ohio
 - Frederick, Md.



Sheet metal workers review ventilation system drawings inside the Control and Support Building.

- **Acquisitions to date**
 - \$103.9 million spent with Kentucky companies
 - \$63.5 million spent in Madison and surrounding counties
- **Payroll to date (includes nonmanual and craft)**
 - \$390.8 million of local payroll paid
 - \$419.2 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

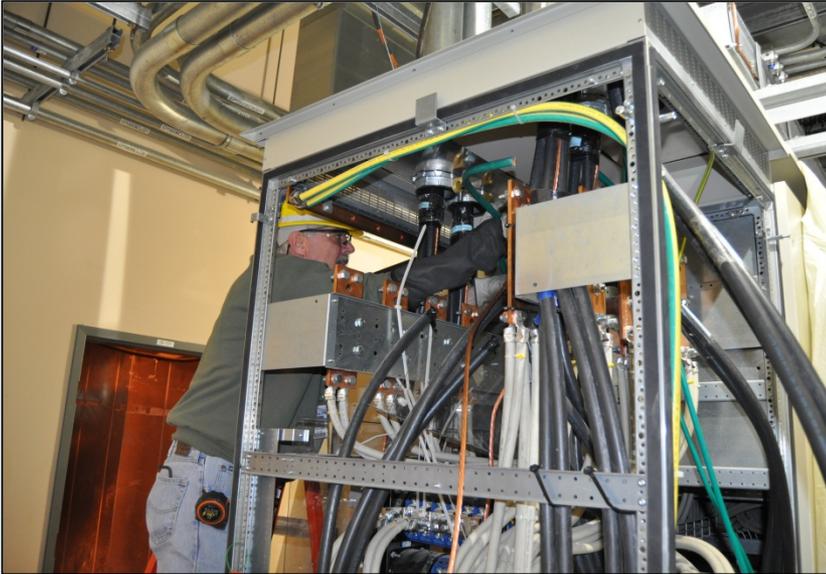
- 2 Munitions Demilitarization Building (MDB)**
- Paneling and protective coatings
 - HVAC, electrical, piping, mechanical systems
 - MDB filter area foundations and filters

- 3 Utility Building**
- Exterior pipe rack support steel
 - Interior electrical and piping systems
 - Boiler room infrastructure

- 4 Supercritical Water Oxidation (SCWO) Process Building** (not visible in photo)
- Exterior siding and internal electrical systems

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

Control and Support Building (CSB)



An electrician installs a complex array of wiring (above left) inside the CSB. Atop the CSB roof, sheet metal workers continue installing large heating, ventilation and air conditioning ductwork (above right). Once complete, the CSB will house the control room and the integrated control system used to operate the plant.

Munitions Demilitarization Building (MDB)



Iron workers install reinforcing steel (above left) to support a future MDB filter area concrete foundation placement. During plant operations, the MDB's negative air pressure system, called cascading ventilation, draws fresh air into the building, returning it to the atmosphere only after it passes through a series of carbon filter units that scrub the air as it passes through. Meanwhile, MDB structural steel installation (above right) is nearing completion. The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.

Hydrolysate Storage Area (HSA)



Two of five HSA storage tank shells (above left) have been erected and welded together. A worker welds metal plating (above right) inside an HSA storage tank. During operations, agent and energetic hydrolysates, byproducts of the neutralization process, are emptied into HSA holding tanks once agent destruction is verified.

Supercritical Water Oxidation (SCWO) Process Building



An electrician installs cable tray (above left) inside the SCWO Process Building. Meanwhile, SCWO Process Building exterior siding installation (above right) continues. 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.

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