

Monthly Status Briefing

February 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

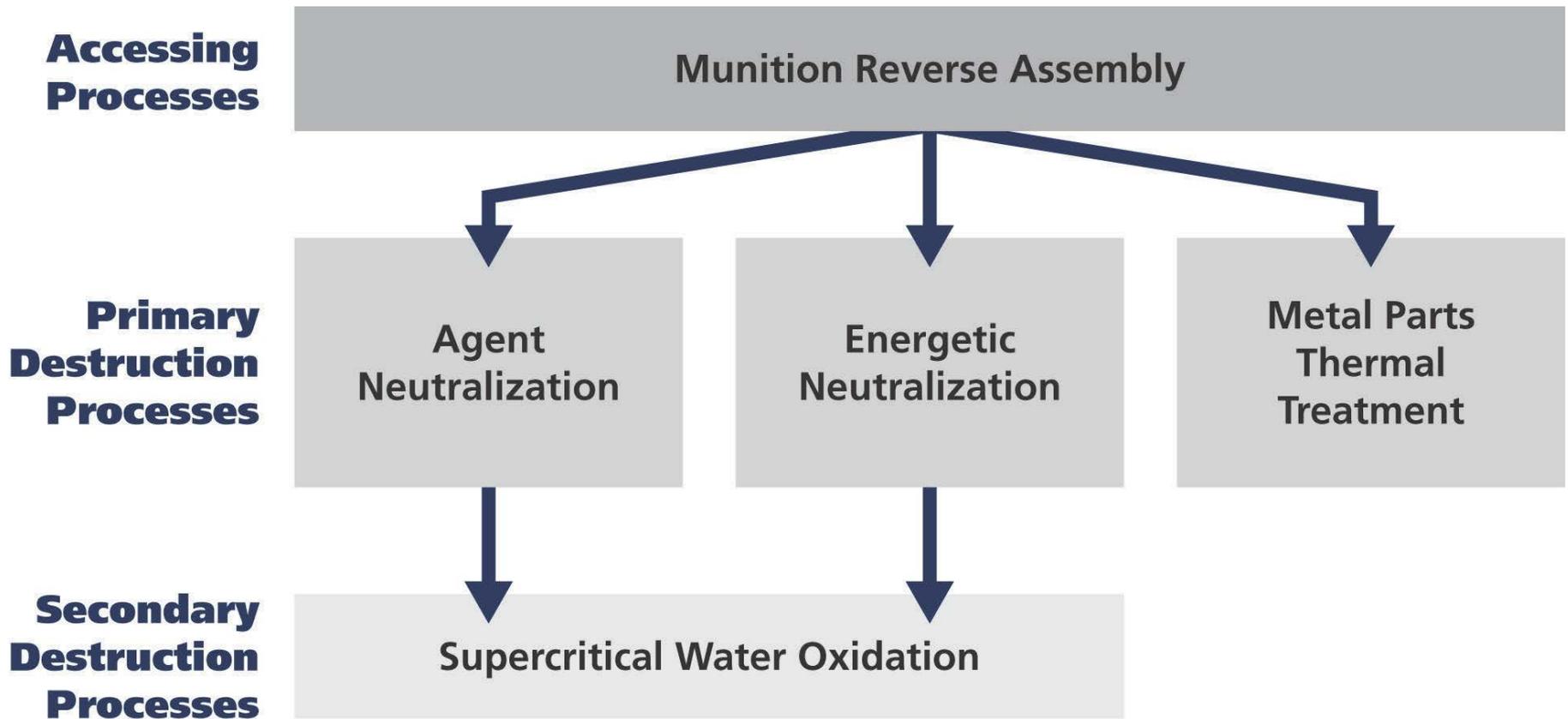
Project Background

- 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.

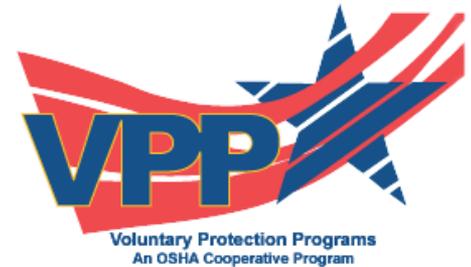


Safety



- Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate is **81 percent lower** and recordable injury rate is **26 percent lower** than industry average
- As of January 31, 2013, the project has completed 311,154 hours and 82 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**
- **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—1,002**
- **Richmond, Ky.—933**
 - Nonmanual—523
 - Craft—410
 - Local hires—54 percent
- **Other locations—69**
 - Pasco, Wash.
 - San Diego, Calif.
 - Columbus, Ohio
 - Frederick, Md.



Electricians are among the 410 total local building and construction trades craft workers at BGCAPP.

Economic Impact

- **Acquisitions to date**

- \$104.6 million spent with Kentucky companies
- \$63.8 million spent in Madison and surrounding counties

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

- \$398 million of local payroll paid
- \$412 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
 - SCWO effluent process tank area foundation

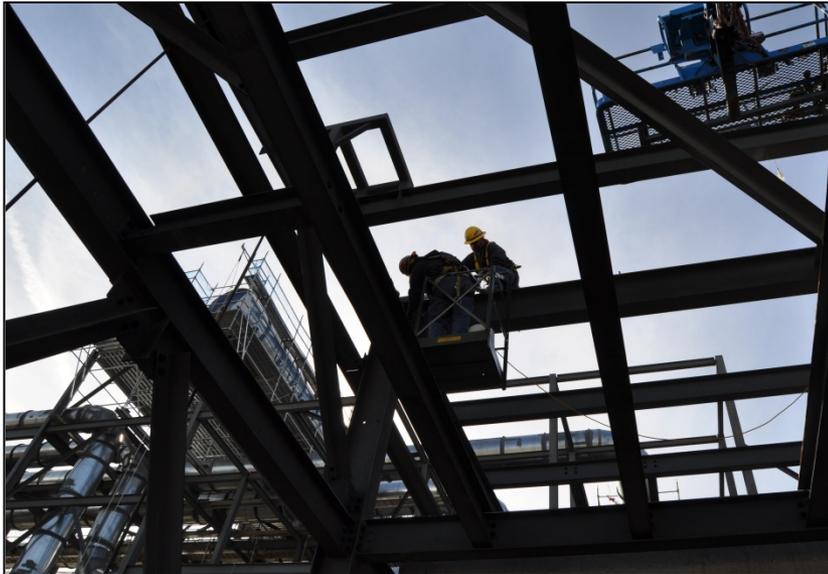
- 5 Laboratory Building** (not visible in photo)
- Systemization complete, personnel occupancy

Control and Support Building (CSB)



Electricians install subflooring electrical components (above left) to support CSB facility control system cabinets. Meanwhile, an electrician installs electrical wiring (above right) elsewhere inside the CSB. Once complete, the CSB will house the control room and the integrated control system used to operate the plant.

Munitions Demilitarization Building (MDB)



Local iron workers from the Central Kentucky Building and Construction Trades Council (above left) have completed major MDB structural steel installation. At the MDB filter area, construction crews have completed the final filter area concrete foundation placement (above right). 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. The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.

Supercritical Water Oxidation (SCWO) Process Building



BGCAPP craft workers have installed two sides of the SCWO Process Building's exterior siding (above left) and progress continues on the remainder of the building. Adjacent to the SCWO Process Building, operating engineers perform earthwork excavations (above right) to prepare for a future effluent process tank area concrete foundation. 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.

Balance of Plant Infrastructure



Another Balance of Plant utility power center (UPC) has been placed atop its concrete foundation (above left). Elsewhere at the BGCAPP site, electricians configure underground electrical conduit (above right) to prepare for a future concrete duct bank placement. During operations, UPCs will distribute electricity throughout BGCAPP.

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