

Monthly Status Briefing

April 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

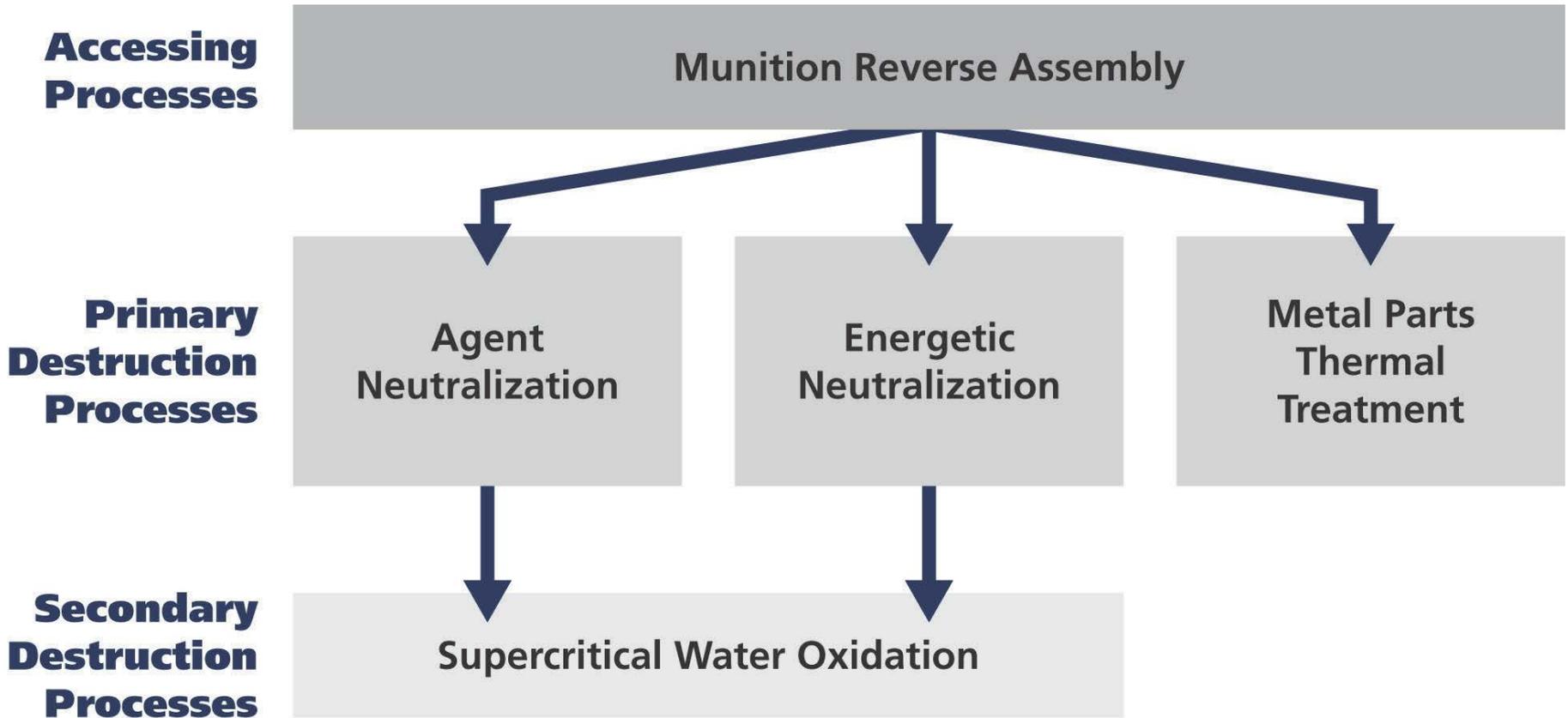
Project Background

- 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.

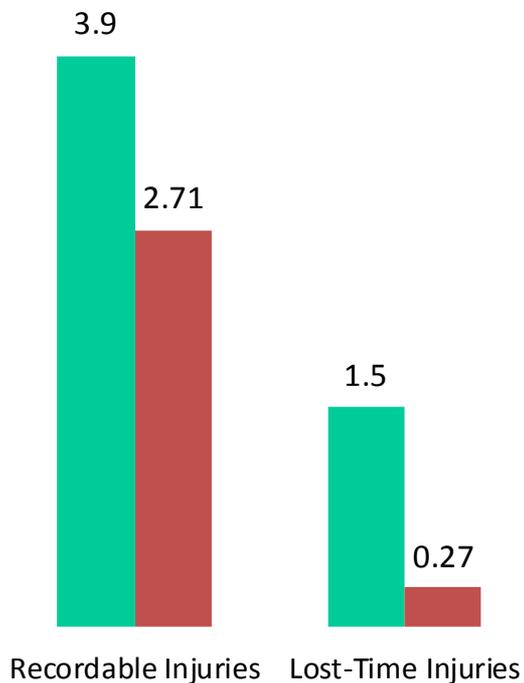


Destruction Technology

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

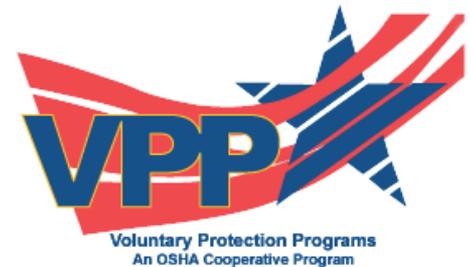


Safety



- Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate is **82 percent lower** and recordable injury rate is **31 percent lower** than industry average
- As of March 31, 2013, the project has completed 682,017 hours and 141 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—1,040**
- **Richmond, Ky.—1,015**
 - Nonmanual—536
 - Craft—479
 - Local hires—57 percent
- **Other locations—25**
 - Pasco, Wash.
 - San Diego, Calif.
 - Columbus, Ohio
 - Frederick, Md.



BGCAPP electricians review design drawings before installing Control and Support Building components.

- **Acquisitions to date**

- \$106.4 million spent with Kentucky companies
- \$64.6 million spent in Madison and surrounding counties

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

- \$417 million of local payroll paid
- \$393 million more to be paid during the remainder of project

Construction Work in Progress



- 1 Hydrolysate Storage Area**
 - Fabricating and erecting tanks
- 2 Control and Support Building (CSB)**
 - Electrical, piping and fire detection systems
 - Heating, ventilation and air conditioning (HVAC)
 - Facility control system cabinets and infrastructure
- 3 Munitions Demilitarization Building (MDB)**
 - Paneling and protective coatings
 - HVAC, electrical, piping, mechanical systems
 - MDB filter area filter housings and stacks

- 4 Utility Building**
 - Exterior pipe rack support steel
 - Interior electrical and piping systems
 - Boiler room infrastructure
- 5 Supercritical Water Oxidation (SCWO) Process Building** (not visible in photo)
 - Exterior siding and internal electrical systems
 - SCWO effluent process tank area foundation
- 6 Laboratory Building** (not visible in photo)
 - Systemization complete, personnel occupancy

Control and Support Building (CSB)



An electrician installs commodities (above left) inside the CSB. Elsewhere inside the CSB, electricians install wiring (above right) inside facility control system cabinets. Once complete, the CSB will house the control room and the integrated control system used to operate the plant.

Munitions Demilitarization Building (MDB)



The rocket shear machine (above left) is staged inside the MDB awaiting installation. Inside MDB Explosive Containment Rooms, millwrights and ironworkers position conveyors for installation. During plant operations the remotely operated rocket shear machine will help safely disassemble the chemical weapons. Conveyors will be used during plant operations to remotely transfer chemical weapons from each disassembly station to the next. 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)



Boilermakers have fabricated and erected three of five HSA tanks (above left). Meanwhile, structural steel work (above right) continues at the SCWO Process Building and foundation work begins for an adjacent utility power center. 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.

Balance of Plant Infrastructure



Electrical wiring is pulled (above left) into an outlying utility power center (UPC). Ironworkers install pipe rack support steel (above right) near the Utility Building (UB) that will carry utilities such as chilled water and steam to support plant operations. During operations, UPCs will distribute electricity throughout BGCAPP. Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations.

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