

# Monthly Status Briefing

*March 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](http://www.peoacwa.army.mil)



A PARTNERSHIP FOR SAFE CHEMICAL WEAPONS DESTRUCTION

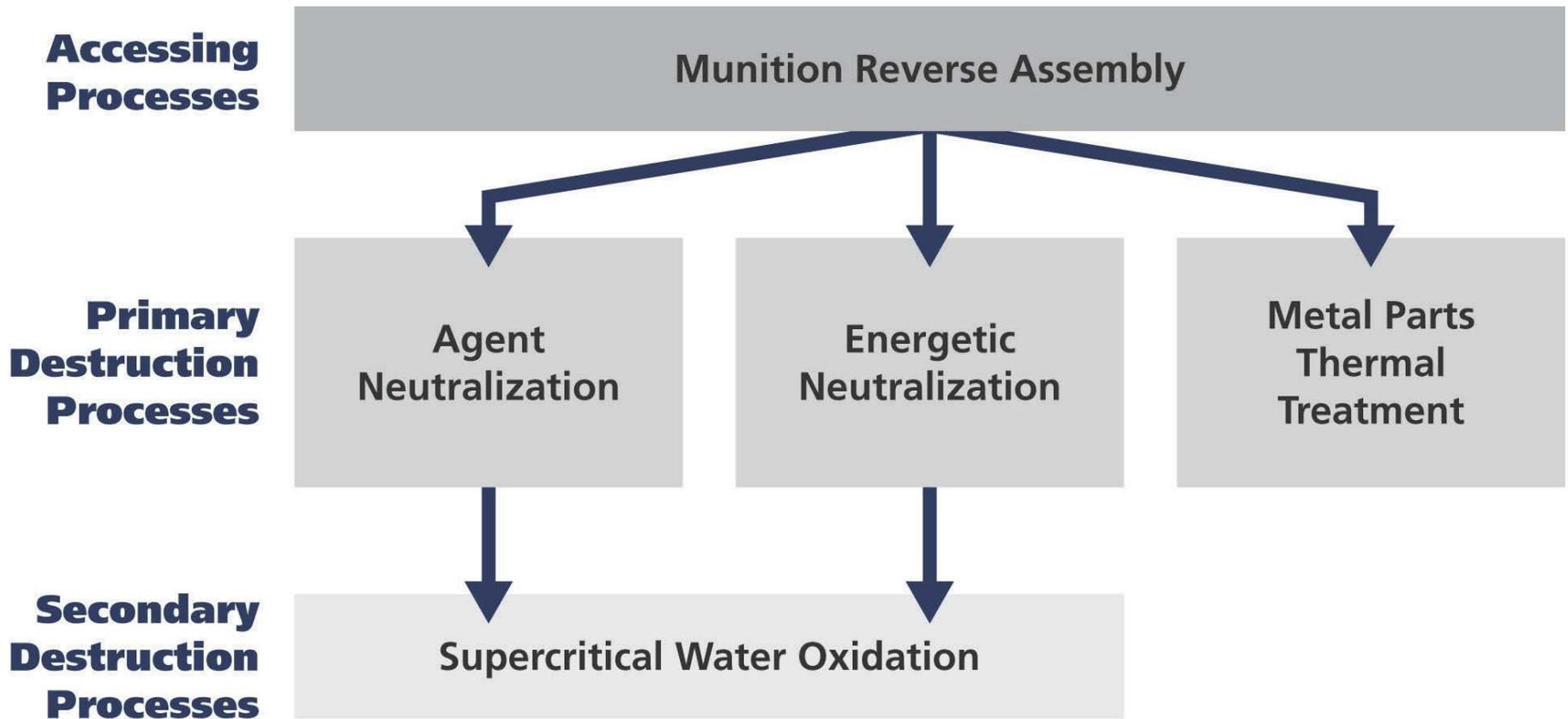
# Project Background

- 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.

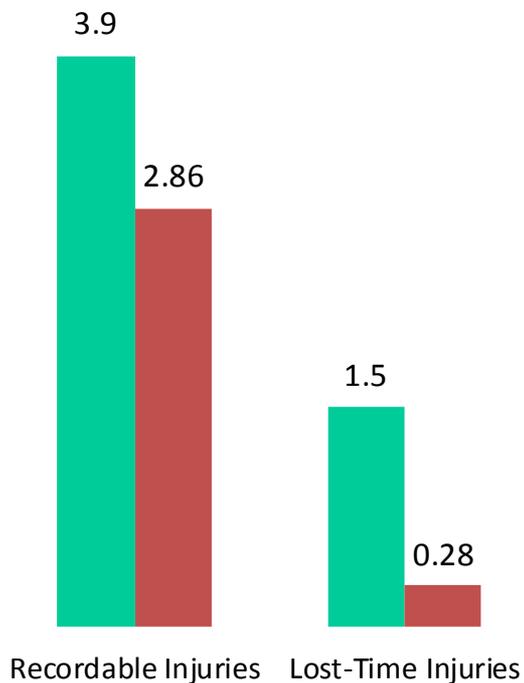


# Destruction Technology

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

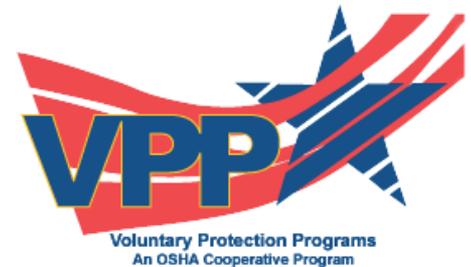


# Safety



■ 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 is **27 percent lower** than industry average
- As of February 28, 2013, the project has completed 486,000 hours and 110 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—1,047**
- **Richmond, Ky.—978**
  - Nonmanual—528
  - Craft—450
  - Local hires—56 percent
- **Other locations—69**
  - Pasco, Wash.
  - San Diego, Calif.
  - Columbus, Ohio
  - Frederick, Md.



BGCAPP laborers remove curing blankets from a completed Munitions Demilitarization Building filter area concrete foundation placement.

- **Acquisitions to date**

- \$105.5 million spent with Kentucky companies
- \$64.1 million spent in Madison and surrounding counties

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

- \$407 million of local payroll paid
- \$403 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)



The BGCAPP cascading ventilation system ductwork (above left) now spans from the CSB to the Munitions Demilitarization Building roofline. On the ground, workers now access the CSB through completed and permanent plant doorways (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)



Pipefitters review drawings to prepare for more complex piping installations inside the MDB agent neutralization system room (above left). With major MDB structural steel installation complete, ironworkers now focus on installing exterior siding and roofing. 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 fabricate HSA tank lids (above left). SCWO Process Building (above right) structural steel work and exterior siding installation activities continue. 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)



The UB (above left) is now surrounded by a host of pipe rack steel installations and support infrastructure. Inside the UB, a pipefitter welds a UB interior piping support (above right). Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations.

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