



Blue Grass Chemical Agent-
Destruction Pilot Plant

Monthly Status Briefing

July 2012



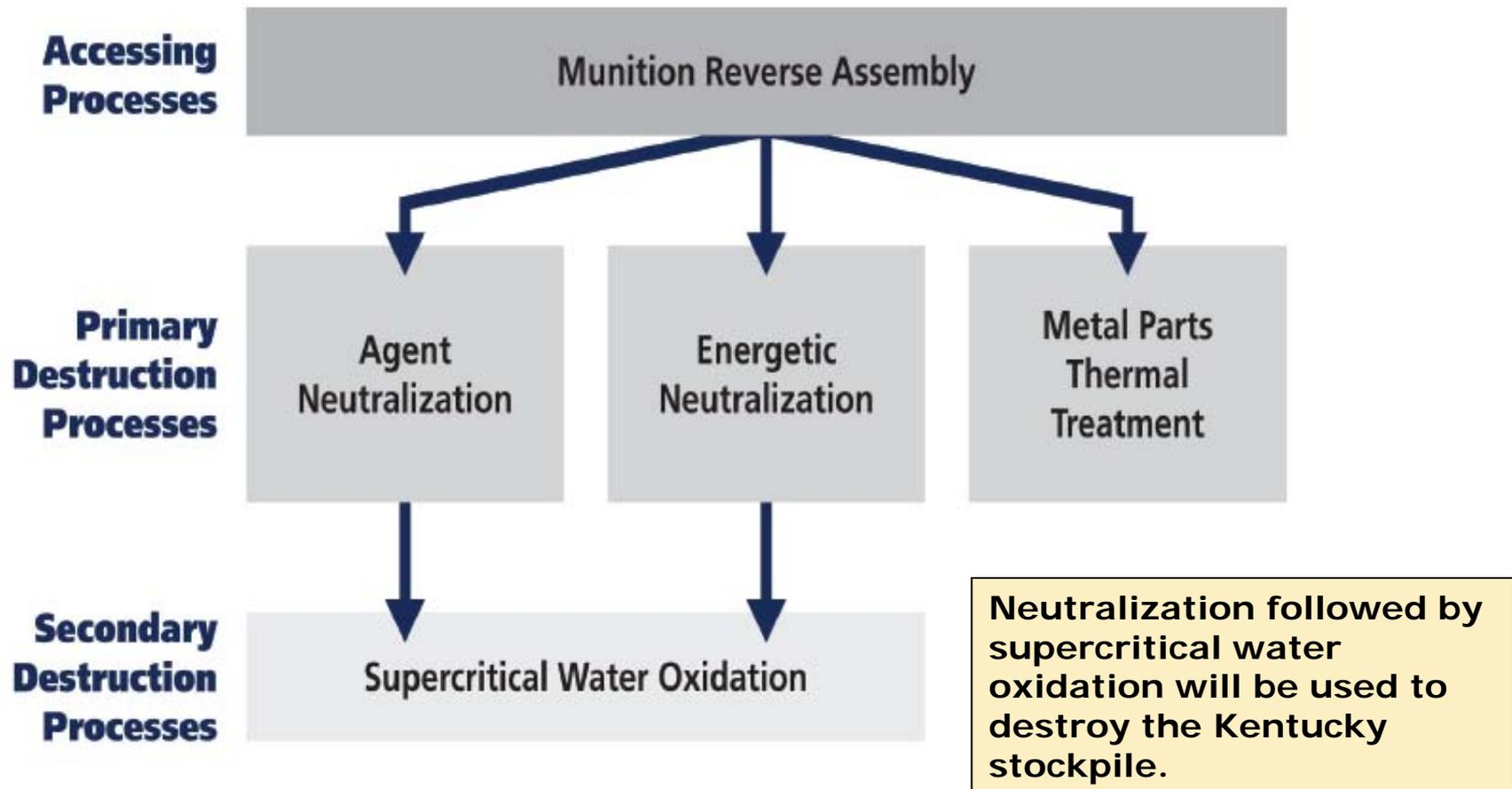
BGCAPP

Project Background

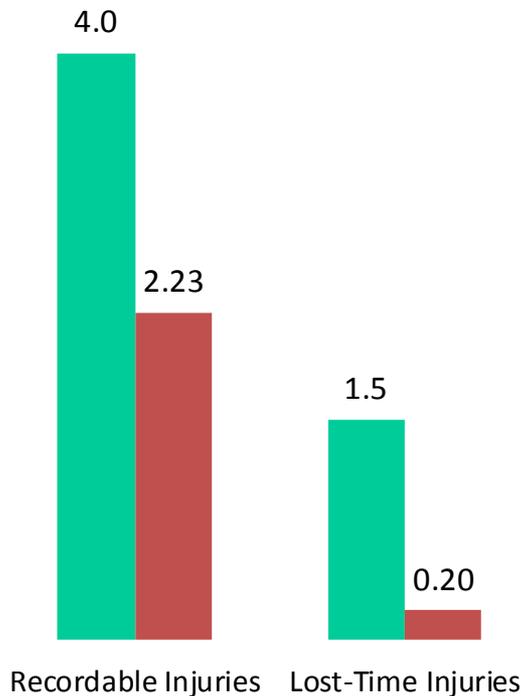
- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will safely destroy 523 tons of chemical agent in rockets and artillery projectiles stored at the Blue Grass Army Depot in Richmond, Ky.
- The technology selected by the Department of Defense to destroy the Blue Grass chemical weapons stockpile is neutralization followed by supercritical water oxidation (SCWO).
- The Assembled Chemical Weapons Alternatives (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



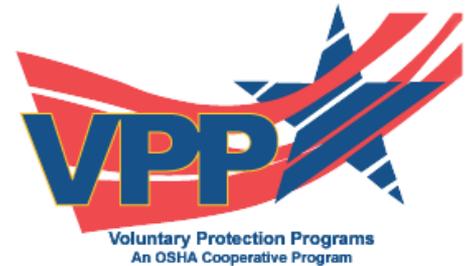
Safety



Recordable Injuries Lost-Time Injuries

■ 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 **87 percent lower** and recordable injury rate **44 percent lower** than industry average
- As of June 30, 2012, the project has completed nearly 50,000 hours and 16 days without a lost-time accident



Continued Safety Focus

- **Safety remains a core value of the project workforce**
- **Management and employees re-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; and 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—969**
- **Richmond, Ky.—893**
 - Nonmanual—452
 - Craft—441
 - Local hires—58 percent
- **Other locations—76**
 - Pasco, Wash.
 - San Diego, Calif.
 - Columbus, Ohio
 - Frederick, Md.



Blue Grass Chemical Agent-Destruction Pilot Plant craft workers prepare electrical cable trays for installation inside the Utility Building.

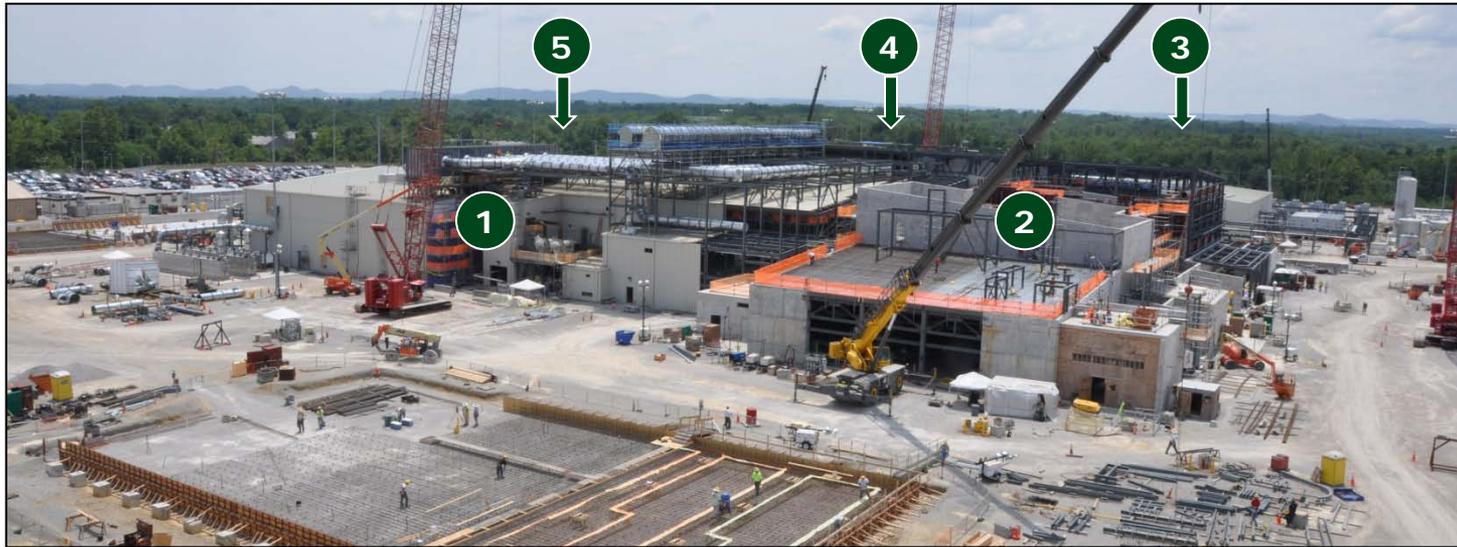
- **Acquisitions to date**

- \$84.4 million spent with Kentucky companies
- \$47.6 million spent in Madison and surrounding counties

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

- \$342 million of local payroll paid
- \$468 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)

2 Munitions Demilitarization Building (MDB)

- Concrete placements, structural steel, paneling
- Electrical, piping, mechanical systems
- HVAC systems and protective coatings
- MDB filter area foundations

3 Utility Building (not visible in photo)

- Exterior pipe rack support steel
- Concrete pads for exterior utilities
- Interior electrical and piping systems

4 Supercritical Water Oxidation (SCWO) Process Building (not visible in photo)

- Structural steel, process tanks and equipment

5 Laboratory Building (not visible in photo)

- Exterior siding, architectural trim and railings
- Interior cabinet assembly and floorings

Control and Support Building (CSB)



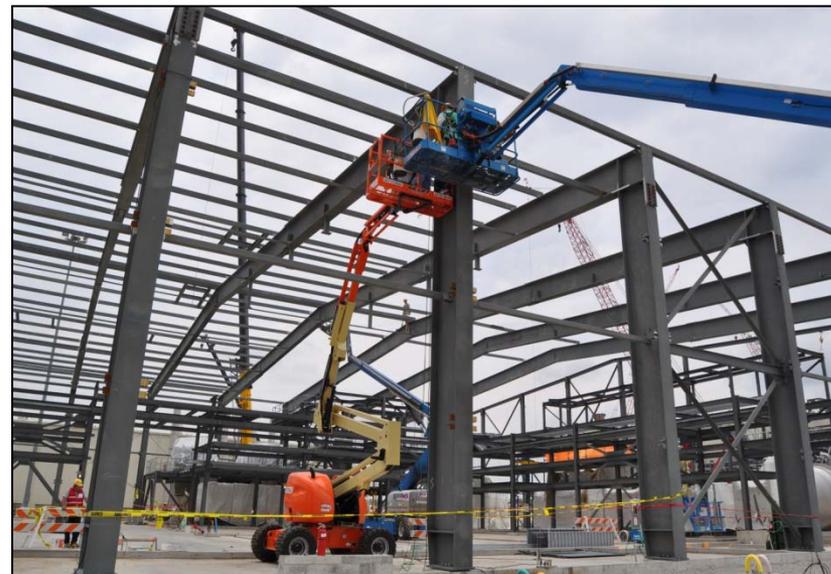
A complex network of subflooring and electrical infrastructure (above left) is being installed inside the CSB instrument rack rooms. Outside the CSB, BGCAPP craft workers are connecting heating, ventilation and air conditioning ductwork components to the building's exterior. Once complete, the CSB will house the control room and the integrated control system used to operate the plant.

Munitions Demilitarization Building (MDB)



Craft workers make the project's first MDB filter area concrete foundation placement (above left). 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. Inside the MDB, a craft worker fastens an electrical cable tray (above right) to installed structural steel. The MDB is where the chemical weapons will be disassembled, the explosives removed and the agent neutralized.

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



Reinforcing steel installation is underway (above left) to support the final HSA concrete foundation placement. At the SCWO Process Building, craft workers anchor structural steel roofing beams (above right) to the building's installed steel girders. 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.

Laboratory Building



Laboratory (above left) heating, ventilation and air conditioning units, along with fall-protection railings, have been installed atop the building's roof. Inside the Laboratory, craft workers assemble and install cabinets and countertops (above right). During operations, the Laboratory's functions will include verifying agent destruction before byproducts from the neutralization process are emptied into hydrolysate holding tanks to await transfer to the Supercritical Water Oxidation Process Building.

Blue Grass Chemical Agent-Destruction Pilot Plant

