



Blue Grass Chemical Agent-
Destruction Pilot Plant

Monthly Status Briefing

April 2012



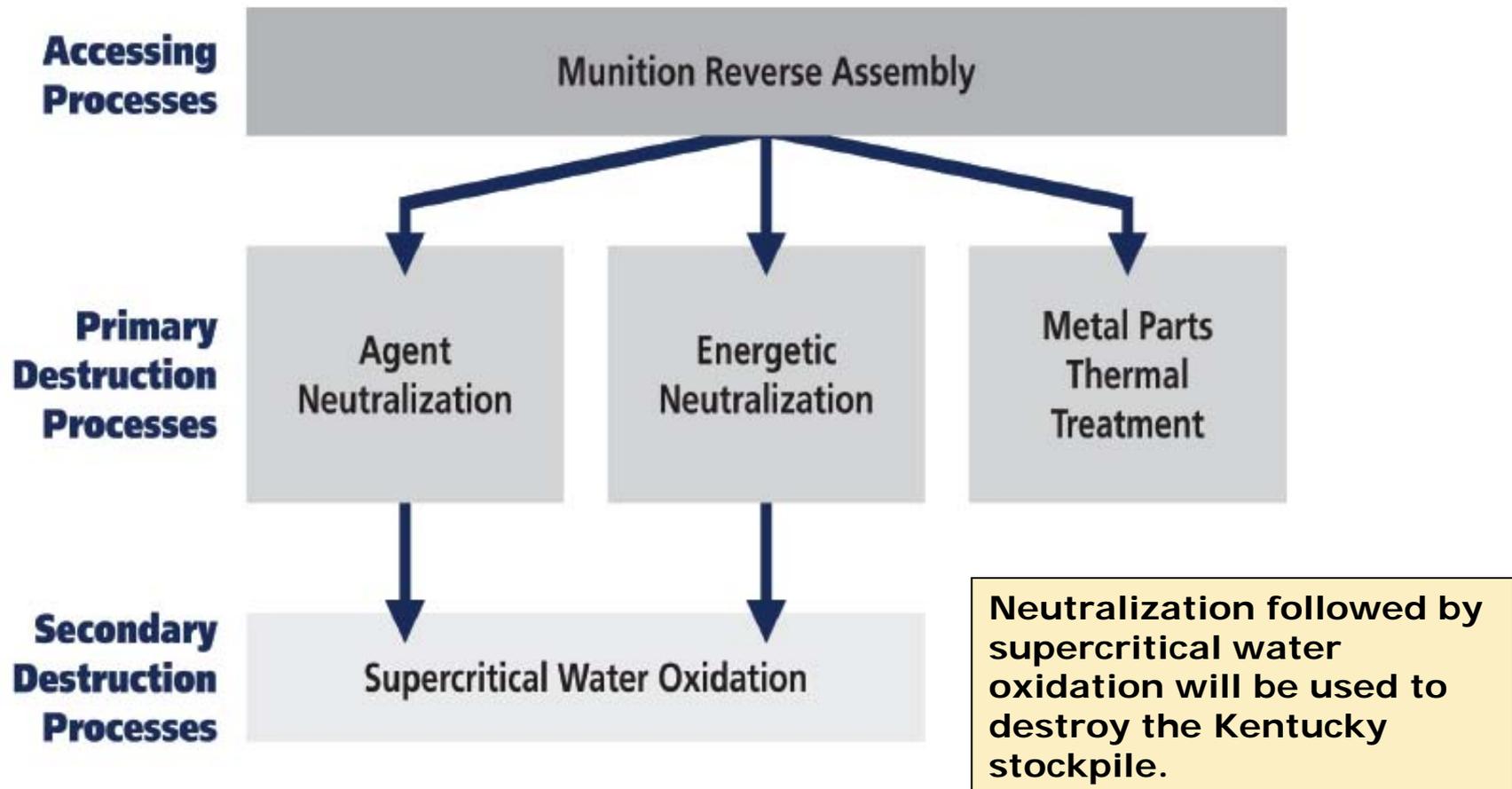
BGCAPP

Project Background

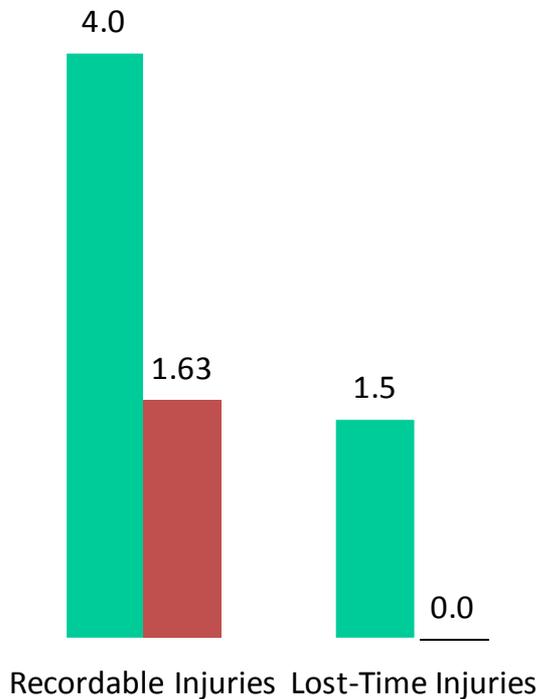
- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will safely destroy 523 tons of chemical agent in rockets and artillery projectiles stored at the Blue Grass Army Depot in Richmond, Ky.
- The technology selected by the Department of Defense to destroy the Blue Grass chemical weapons stockpile 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 Infrastructure and Technology Group, along with teaming partners URS Corporation, Battelle Memorial Institute, General Atomics and General Physics, is the systems contractor selected to design, build, systemize, pilot test, operate and close BGCAPP.



Destruction Technology

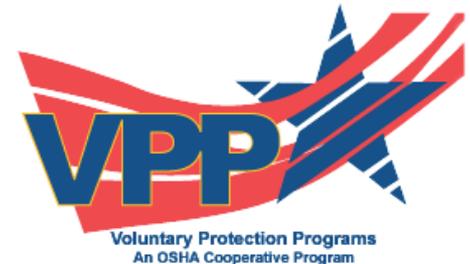


Safety



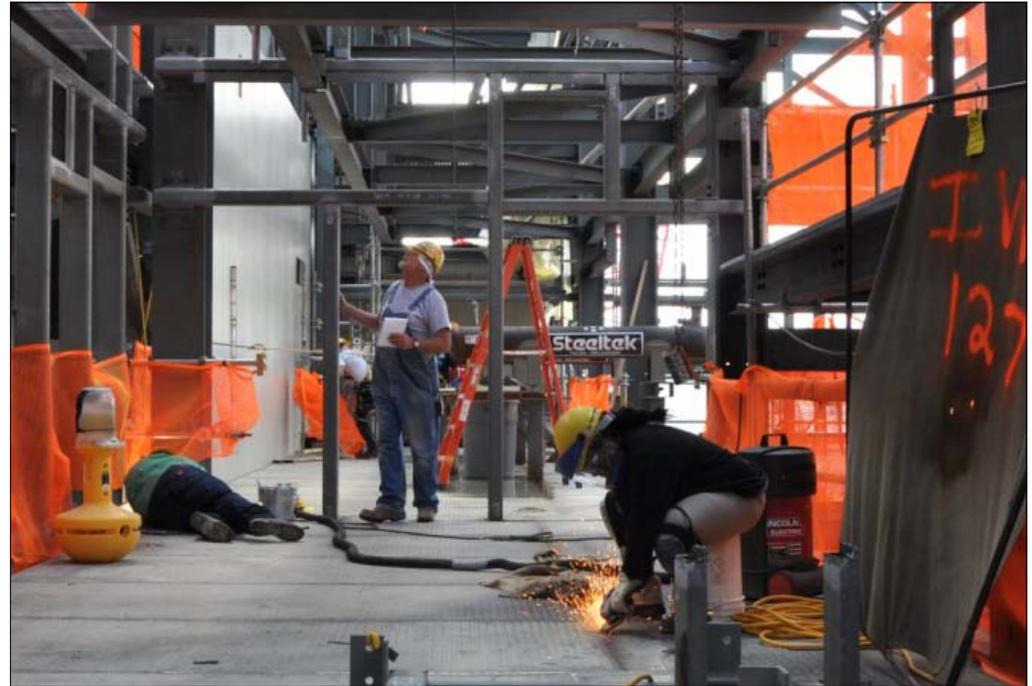
- Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate is **zero** and recordable injury rate **59 percent lower** than industry average
- As of March 31, 2012, the project has completed 1,966,658 hours and 388 days without a lost-time accident

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



Current Project Staffing

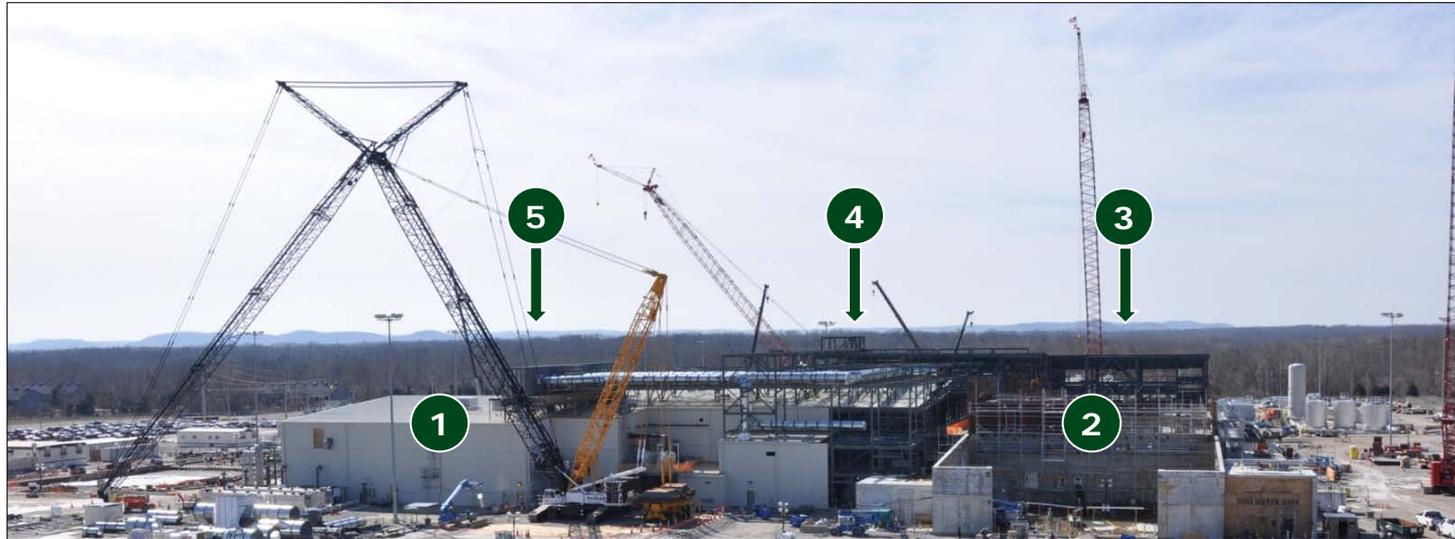
- **Total project employment—917**
- **Richmond, KY—827**
 - Nonmanual—434
 - Craft—393
 - Local hires—57 percent
- **Other locations—90**
 - Pasco, WA
 - San Diego, CA
 - Columbus, OH
 - Frederick, MD



The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) has 827 craft workers and nonmanual employees safely working in Richmond, KY.

- **Acquisitions to date**
 - \$81.9 million spent with Kentucky companies
 - \$46.8 million spent in Madison and surrounding counties
- **Payroll to date (includes non-manual and craft)**
 - \$319.5 million of local payroll paid
 - \$490.5 million more to be paid during the remainder of project

Construction Work in Progress



- 1 Control and Support Building (CSB)**
 - Metal wall studs, sheet rock and painting
 - Electrical, piping and fire detection systems
 - Heating, ventilation and air conditioning (HVAC)
- 3 Utility Building** (not visible in photo)
 - Electrical, piping and HVAC systems
 - Concrete pads for exterior utilities
 - Evaporative coolers concrete foundations

- 2 Munitions Demilitarization Building (MDB)**
 - Concrete placements, structural steel, paneling
 - Electrical, piping, mechanical systems
 - HVAC systems and protective coatings
 - MDB filter area excavations
- 4 Supercritical Water Oxidation (SCWO) Process Building** (not visible in photo)
 - Structural steel, process tanks and equipment
- 5 Laboratory Building** (not visible in photo)
 - Assembling 20 building modules atop foundation
 - HVAC systems and communications cable

Control and Support Building (CSB)



Craft workers are installing electrical conduit (above left) into the CSB. The conduit will house the electrical cable needed to power the CSB during plant operations. Elsewhere outside the CSB, craft workers are installing large cascading ventilation air system ductwork (above right) atop the CSB roof. Once complete, the CSB will house the control room and integrated control system used to operate BGCAPP.

Munitions Demilitarization Building (MDB)



Craft workers continue to safely affix exterior paneling to structural steel (above left) which now surrounds the MDB's installed agent and energetics neutralization equipment. Within the MDB's blast-containment area, craft workers prepare for more elevated concrete wall placements by installing reinforcing steel (above right). 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



Craft workers remove formwork after an HSA concrete foundation placement (above left). Meanwhile at the SCWO Process Building, craft workers are installing structural steel around installed process equipment (above right). 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 Supercritical Water Oxidation Process Building which houses the reactors where agent and energetic hydrolysates will be subjected to very high temperatures and pressures to destroy the hydrolysate's organic content.

Laboratory Building and Utility Building (UB)



Craft workers continue to assemble Laboratory Building modules and install heating, ventilation and air conditioning systems atop the roof (above left). Craft workers are installing electrical panels inside the UB (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. Once complete, the UB will house equipment to produce steam, compressed air, chilled water and hot water for operations.

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