



Blue Grass Chemical Agent-
Destruction Pilot Plant

Monthly Status Briefing

May 2012



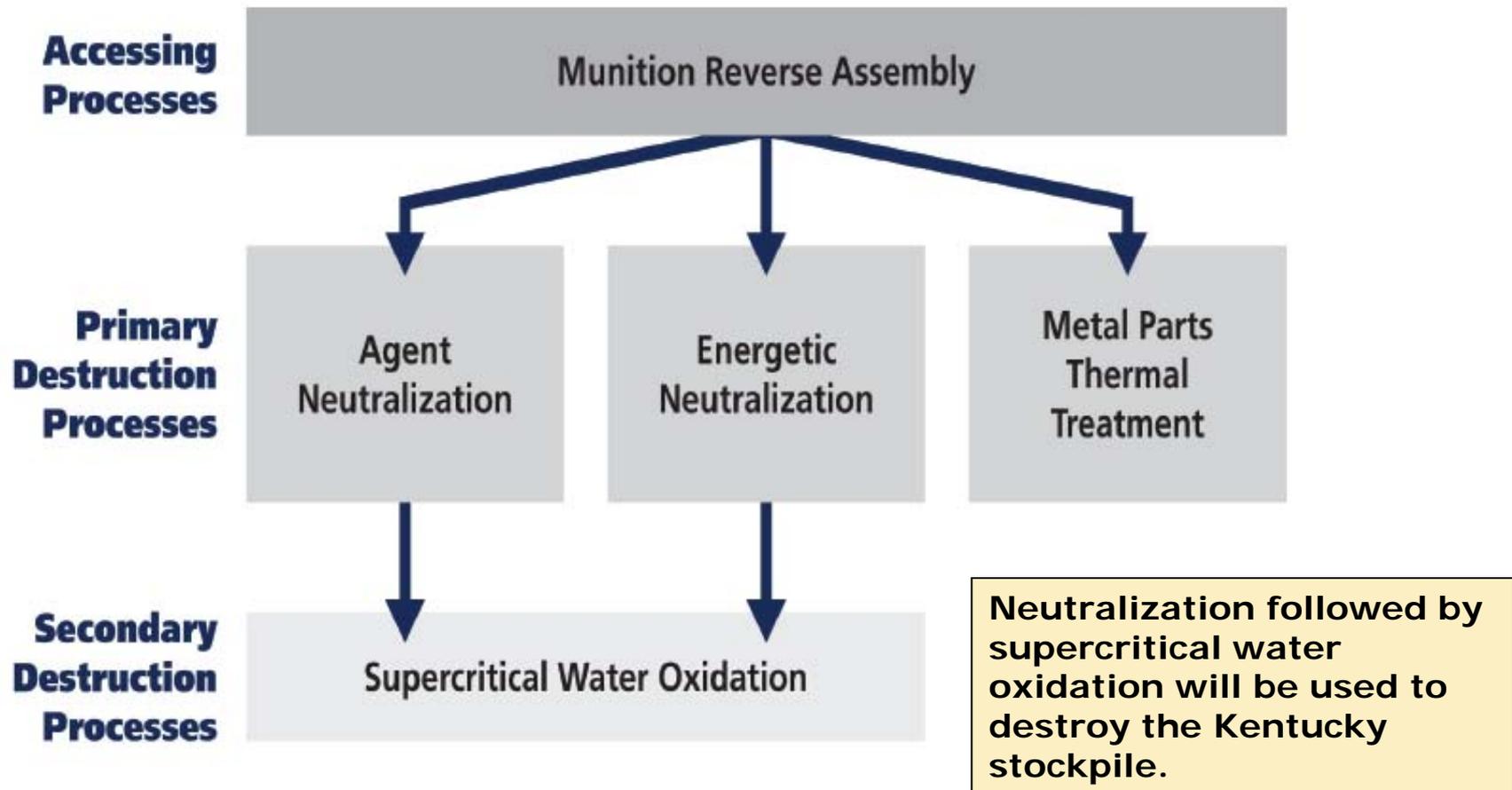
BGCAPP

Project Background

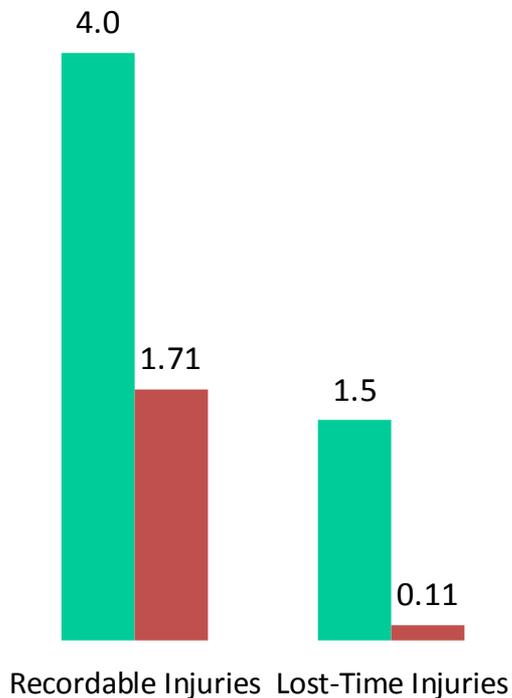
- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) will safely destroy 523 tons of chemical agent in rockets and artillery projectiles stored at the Blue Grass Army Depot in Richmond, Ky.
- The technology selected by the Department of Defense to destroy the Blue Grass chemical weapons stockpile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

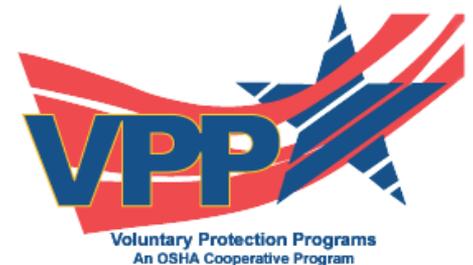


Safety



■ 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 **93 percent lower** and recordable injury rate **57 percent lower** than industry average
- As of April 30, 2012, the project has completed 62,458 hours and 14 days without a lost-time accident



Current Project Staffing

- **Total project employment—923**
- **Richmond, Ky.—847**
 - Nonmanual—449
 - Craft—398
 - Local hires—56 percent
- **Other locations—76**
 - Pasco, Wash.
 - San Diego, Calif.
 - Columbus, Ohio
 - Frederick, Md.



The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) workforce includes 398 construction craft workers. A craft worker (above) welds heating, ventilation and air conditioning (HVAC) ductwork.

- **Acquisitions to date**

- \$82.6 million spent with Kentucky companies
- \$47.1 million spent in Madison and surrounding counties

- **Payroll to date (includes non-manual and craft)**

- \$327 million of local payroll paid
- \$483 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)

- Exterior pipe rack support steel
- 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)

- HVAC and lighting systems

Control and Support Building (CSB)



Craft workers install cascading ventilation air ductwork (above left) atop the CSB roof. Inside the CSB, craft workers install electrical and piping systems (above right). Once complete, the CSB will house the control room and integrated control system used to operate the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).

Munitions Demilitarization Building (MDB)



Craft workers perform earth excavations (above left) for the MDB filter area. During plant operations, fresh air will be continually drawn into the MDB, and can only return to the atmosphere after passing through the MDB filter area which scrubs the air as it passes through the multiple carbon banks in each filter unit. A craft worker installs interior wall paneling (above right) inside the MDB. 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 clean and prepare (above left) for a future HSA concrete foundation placement. Meanwhile at the SCWO Process Building, craft workers erect structural steel (above right) as the building begins to take shape. 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 the hydrolysate's organic content.

Blue Grass Specific Equipment



Workers at facilities in Pasco, Wash., and San Diego, Calif., are fabricating and testing special pieces of Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) equipment. Once equipment fabrication and testing are complete, the equipment is transported to BGCAPP. Workers in Pasco have recently completed fabrication and testing for the Rocket Cutting Machine (above left) which is designed to safely separate the rocket motor from the agent-filled warhead section. A worker in San Diego inspects a supercritical water oxidation (SCWO) reactor (above right) which will subject agent and energetic hydrolysates, byproducts of the neutralization process, to very high temperatures and pressures to destroy the hydrolysate's organic content.

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