



U.S. Army Element, Assembled
Chemical Weapons Alternatives

ACWA QUARTERLY BRIEF

A Partnership for Safe Chemical Weapons Destruction

June 2009



HOT TOPICS

Acceleration and Hydrolysate Assessment Decisions Announced. In May, the Department of Defense delivered to Congress a report describing its progress toward destruction of the U.S. stockpile of chemical agents and munitions; the current path forward based on a review of options for acceleration; and the results of assessments regarding on-site and off-site treatment and disposal of hydrolysates. The proposed plan is to seek additional resources to: 1) aim toward the U.S. Army Chemical Materials Agency completing destruction operations of all the U.S. chemical stockpile under its purview (90 percent of the U.S. stockpile) by 2012 utilizing performance incentives and risk mitigation actions; and 2) accelerate the Assembled Chemical Weapons Alternatives (ACWA) program schedule toward completing destruction of an additional eight percent of the U.S. stockpile at Pueblo in 2017 and the remaining two percent of the U.S. stockpile at Blue Grass in 2021, resulting in an acceleration in destruction of three years at Pueblo and two years at Blue Grass. On-site treatment and disposal of hydrolysate at Pueblo and Blue Grass will continue, unless unforeseen technical difficulties arise.

Special Equipment Testing in Full Swing. The testing for some of the unique equipment being specially built for the Blue Grass and Pueblo Chemical Agent-Destruction Pilot Plants kicked off in full force this spring. This equipment, often referred to as “first-of-a-kind,” is designed to perform specific tasks unique to the demilitarization of chemical weapons. Teams are working with various vendors to design, construct, fabricate and test the equipment and ensure the safe installation and operation at both plants. The following table provides a description and status of current testing initiatives.

Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) First-of-a-Kind Equipment	Function	Testing Schedule
Linear Projectile Mortar Disassembly (LPMD)	Removes all fuzes and bursters from munitions	Validation testing is complete; the LPMD will be used for operations at the Anniston Chemical Agent Disposal Facility for one year, starting summer 2009
Munition Washout System	Includes three different “cavity access machines” that will each be uniquely configured to provide access to each type of munition body, so that agent can be drained, collected and sent for neutralization; washes out empty munition bodies	Testing on the first of three cavity access machines is nearing completion; testing is expected to be complete in 2010 on the remaining two configurations
Munitions Treatment Unit	Thermally treats munition bodies and mortar base plates in an electric oven	Testing is complete; the first of two of these units is in the PCAPP facility awaiting installation; the second is being fabricated and should be at PCAPP in fall 2009
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) First-of-a-Kind Equipment	Function	Testing Schedule
Energetic Batch Hydrolyzer	Separates energetic, or explosive, materials from munition metal parts and initiates process of neutralizing energetics	Testing has begun and will be completed in early 2010
Metal Parts Treater	Thermally treats contaminated munition bodies and secondary waste	Testing has begun and will be completed in fall 2009
Energetic Neutralization Reactor	Completes destruction of energetics, or explosive material	Testing will be conducted in mid-2010



Sen. Mark Udall Tours Pueblo Construction Site

Sen. Mark Udall (D-CO) (center) visited the Pueblo Chemical Agent-Destruction Pilot Plant on May 30. Flanked here by Bechtel Pueblo Project Manager Paul Henry (left) and ACWA Site Project Manager Gary Anderson, the senator was also joined by U.S. Army Pueblo Chemical Depot Commander Lt. Col. Christopher Chesney on the site tour, where the senator emphasized his commitment to seeing the project complete operations by 2017 and working to ensure a steady stream of funding.



A Firsthand Look at First-of-a-Kind

An Anniston Chemical Agent Disposal Facility worker uses a “dummy” munition to demonstrate how the Linear Projectile Mortar Disassembly system works.



Water Tanks Key Elements of Site Safety

BGCAPP workers recently prepared the foundation for water tanks that will be used as part of the facility’s fire suppression system.

PILOT PLANT UPDATES

Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP)

Construction: Workers are progressing with critical activities for the two main buildings where chemical weapons will be dismantled and destroyed, the Enhanced Reconfiguration Building (ERB) and the Agent Processing Building (APB). Inside the APB, the first of two units that will thermally treat munition bodies is in place, as well as titanium tanks that will be used during the neutralization process. Additionally, excavation, formwork and installation of rebar is currently in progress for two structures. The first structure is the Control Support Building, which is where the PCAPP team will manage destruction operations; the second is the Munition Service Magazine Corridor, which will connect the munition storage area and the ERB. Several large tanks were also recently assembled on site, including a 700,000-gallon tank that will store water that will be used during plant operations.

Acquisitions: Bechtel Pueblo has awarded more than \$109 million in subcontracts to Colorado companies since project inception.

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)

Construction: While the construction team continues with horizontal concrete placements for the Munitions Demilitarization Building, work also started in May on facilities that will provide water for the fire suppression system. The system includes a pump house and two 250,000-gallon tanks. Bechtel Parsons Blue Grass workers excavated for the base layer and placed the concrete foundations in May, and subcontractors mobilized in June to begin erecting the tanks and building the pump house.

Acquisitions: Bechtel Parsons Blue Grass has awarded more than \$39 million in subcontracts to Kentucky companies since project inception.



No Longer an Empty Shell

Not only have several titanium tanks been installed in the Pueblo facility's Agent Processing Building, but the first Munitions Treatment Unit, which is being specially built for PCAPP, recently arrived for installation.



Powering BGCAPP

The BGCAPP team continues the installation of underground site infrastructure, such as duct banks that will carry electricity to the pilot plant.



An overhead view of the BGCAPP construction site shows the significant concrete placements that have occurred during the past several months. Concrete placements will progress throughout the summer and further shift the BGCAPP team's focus aboveground.

NEXT 120 DAYS AT ACWA

- **BGCAPP to Welcome New Leadership.** Jeffrey L. Brubaker will join the BGCAPP team as the Assembled Chemical Weapons Alternatives Program's site project manager in July. He will be responsible for managing the BGCAPP field office and overseeing the systems contract. Brubaker is currently the site project manager for the Newport Chemical Agent Disposal Facility in Indiana, which is in the closure phase.
- **Explosive Destruction Technology Evaluations to Continue.** The PCAPP team will be evaluating data, including a National Research Council report released in March, to select an Explosive Destruction Technology (EDT) to destroy overpacked munitions, which are munitions that have leaked or were damaged, as well as any reject munitions identified during operations. The BGCAPP team will also be reviewing EDT options, as it considers the use of an EDT to process non-contaminated rocket motors and H (mustard agent) projectiles.

FOR MORE INFORMATION

U.S. Army Element, Assembled Chemical Weapons Alternatives, known as ACWA, is responsible for the safe destruction of chemical weapons stockpiles at the U.S. Army Pueblo Chemical Depot in Colorado and the Blue Grass Army Depot in Kentucky.

Monthly status updates on chemical weapons destruction in Colorado and Kentucky can be found at www.pmacwa.army.mil.

For additional information, please contact the ACWA Communications and Congressional Affairs office at (410) 436-3398.