



U.S. Army Element, Assembled  
Chemical Weapons Alternatives

# ACWA QUARTERLY BRIEF

A Partnership for Safe Chemical Weapons Destruction

March 2011



## HOT TOPICS

**Systemization in Full Swing.** As construction teams at the Pueblo and Blue Grass Chemical Agent-Destruction Pilot Plants remain mission-focused, their systemization counterparts have also swung into action. Systemization involves everything required to ensure the facilities are ready to begin chemical weapons destruction operations and will prepare the Pueblo and Blue Grass teams for mission success in three areas: paper, plant and people.

1. Paper: The development of all standard operating procedures and periodic maintenance instructions, as well as test plans for various elements of the plant.
2. Plant: The commissioning, start-up, and testing of the physical plant – ensuring all the systems and facilities work properly and function together.
3. People: The hiring and training of the operations and maintenance staff.

The final step of systemization brings together all three aspects – paper, plant and people – and concludes with an independently led Operational Readiness Review process, which seeks to confirm the pilot plants are capable of conducting their missions, while being fully protective of personnel and the environment.

The systemization stage at Pueblo is expected to be shorter than at Blue Grass, because the Blue Grass stockpile consists of a variety of munition and chemical agent types. The systemization phase at Blue Grass will run concurrently with construction and will continue post-construction. To learn more, watch the Systemization at the Pueblo and Blue Grass Chemical Agent-Destruction Pilot Plants video on the ACWA YouTube channel at [www.youtube.com/usaeacwa](http://www.youtube.com/usaeacwa).

**First Stop – Pueblo, Colo.** The U.S. Army Pueblo Chemical Depot hosted representatives of the Organisation for the Prohibition of Chemical Weapons (OPCW) Executive Council Delegation during their visit to the Colorado and Utah chemical weapons stockpile sites in February. The OPCW is the implementing body of the Chemical Weapons Convention treaty, to which the United States is a signatory, and this visit gave Executive Council members the opportunity to meet with leadership and community members, as well as participate in a tour of the PCAPP construction site to see progress first hand (as shown below).



### No Small Feat

*The boilers delivered in February to heat the BGCAPP facility and support destruction operations are about ten feet tall, and are an example of the many pieces of equipment and systems that need to be integrated into the facility and tested during the systemization stage.*



## MESSAGE FROM THE ACTING PROGRAM MANAGER

I have worked alongside the ACWA program for a number of years, but it wasn't until I was given the assignment as acting program manager that I began to fully appreciate the dedication of this team and the complexities of its mission. It's been a remarkable three months, but let me tell you up front, the program is healthy, on track and making tremendous strides. Construction in Kentucky and Colorado continues to accelerate with Blue Grass concentrating on the erection and exterior finishing of major structures, and Pueblo moving inside to work on interior walls, platforms and the installation of piping and electrical systems. Concurrent with construction at both sites is the beginning of systemization, where components, subsystems and systems and the software that runs them are progressively tested and re-tested to ensure that everything functions properly.

As many of you are aware, the program is also undergoing a Nunn-McCurdy review, which is required by law when any major Department of Defense acquisition program exceeds certain budget parameters. It's a rigorous process, but is not impeding our progress, as construction and systemization at both sites continues as programmed. Determination of the cost growth's root cause is under way, as is an assessment to examine whether reasonable alternatives are available at less cost.

I will remain the acting program manager until at least the conclusion of the Nunn-McCurdy review and completion of the selection process for a permanent replacement. Your continued support during this time of leadership transition is sincerely appreciated, and I look forward to working with you on our common mission for as long I am privileged to serve in this capacity.

**Conrad F. Whyne**  
Acting Program Manager  
U.S. Army Element, ACWA



### Making His Rounds

Acting ACWA Program Manager Conrad Whyne (right) has traveled to both Kentucky and Colorado since his tenure at ACWA began, and has taken the opportunity to meet with community members at both sites including, from left, Pueblo County Commissioners John Cordova and Anthony Nunez in Pueblo this past January.



## PILOT PLANT UPDATES

### Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP)

Throughout PCAPP, construction efforts progress as workers continue to install equipment, piping and cable and complete architectural finishes on a variety of buildings and structures. Workers have also been installing rebar and formwork for cement placements for the Brine Reduction System, that will be part of the biotreatment process.

The past several months have also seen the arrival of a variety of equipment including Miniature Continuous Air Monitoring Systems, or MINICAMS, which will be used to detect mustard agent in near real-time to protect workers and the environment. The PCAPP Laboratory arrived; it is a modular building where waste characterization and air testing will take place. The last of three Projectile Mortar Disassembly systems was also delivered and installed in the Explosion Containment Room, where the initial removal of explosive components will be performed.



*All three Projectile Mortar Disassembly (PMD) systems are now at PCAPP. The PMDs will robotically disassemble munitions by removing their nose closures and bursters before they head to the Agent Processing Building for chemical agent removal and processing.*

### Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)

The BGCAPP team is fully-focused on two key critical path structures where destruction operations will occur: the Munitions Demilitarization Building (MDB) and the Supercritical Water Oxidation (SCWO) Processing Building. In the MDB, construction continues on the second level blast walls, structural steel and interior walls. As for the SCWO Processing Building, concrete placements for the foundation are ongoing. A host of activities, including HVAC, electrical, roofing and siding, also has been under way for the Control and Support Building, which will serve as the nerve center of the plant once destruction operations are initiated.



*The Blue Grass facility's secondary processing building – the Supercritical Water Oxidation Processing Building – remains a key priority; workers are currently completing its foundation.*

In addition to the installation of a trio of Utility Building boilers, the BGCAPP workforce also received and safely offloaded 38 Enhanced On-site Containers (EONCs) and 15 EONC trailers, which arrived in late January from the Pine Bluff Chemical Agent Disposal Facility in Arkansas. EONCs will safely transport the chemical munitions from their current storage igloos to BGCAPP during plant destruction operations.



#### **It's All Coming Together**

*With more and more equipment arriving at PCAPP every month, workers are also now focused on installing and assembling equipment that will be used during destruction operations. Inside the Agent Processing Building, a worker installs a gauge on a Cavity Access Machine gauge panel. The panel will measure pressure to ensure the system is running properly.*

#### **If Walls Could Talk**

*The BGCAPP team continues to work on blast-containment walls of the Munitions Demilitarization Building to provide the utmost safety for its workforce during operations. Rachel McCubbin and Dan Bayens from Sen. Rand Paul's (R-Ky.) office, heard all about the walls and the rest of the construction site, during a tour this past February.*

## NEXT 90 DAYS AT ACWA

**Explosive Destruction Technology (EDT):** ACWA will continue to carry out the National Environmental Policy Act process to review the use of explosive destruction technology at PCAPP. ACWA has contracted with the Oak Ridge National Laboratory (ORNL) to prepare a new supplemental Environmental Assessment, or EA, which will consider concerns raised from the previous EA that was withdrawn in Sept. 2010. ACWA is working with ORNL to gather data on each of the EDT technologies and will continue meeting with citizens regularly to work together on the EA path forward.

**Pueblo:** ACWA Test Equipment, or ATE, will be delivered to Pueblo this spring. These simulated munitions will be used during the systemization stage to test the operability of PCAPP's equipment and systems.

**Blue Grass:** An X-ray assessment of munitions in storage at the Blue Grass Chemical Activity will begin in late spring. The assessment will analyze a sample of mustard (H) projectiles stored at the depot to measure the presence of solidified agent, or "heels," in the weapons and provide data to help determine the appropriate path forward for destruction of potentially problematic munitions.



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