



U.S. Army Element, Assembled
Chemical Weapons Alternatives

ACWA QUARTERLY BRIEF

A Partnership for Safe Chemical Weapons Destruction

March 2009



HOT TOPICS

Operation Swift Solution Team Fulfills Mission. With Operation *Swift Solution* drawing to a close, over the next several weeks the Edgewood Chemical Biological Center will be transporting its equipment back to Aberdeen Proving Ground, Md., closing the book on the first chemical weapons stockpile destruction effort completed in the Commonwealth of Kentucky. The safe and complete elimination of three deteriorating steel containers that stored a mixture of GB (sarin) nerve agent and its breakdown products brought credit to the United States for agent destruction under the Chemical Weapons Convention treaty. The multi-agency effort eliminated the health and safety risks associated with continued storage of the containers as well as other wastes accumulated during years of their management.

Pueblo Safety Program Receives National Recognition. Feb. 18 was a red-letter day for the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) team and its safety program. U.S. Department of Labor Occupational Safety and Health Administration (OSHA) officials were joined on the PCAPP construction site by more than 400 members of the PCAPP workforce and local community members, to present Site Project Manager Gary Anderson and Bechtel Project Manager Paul Henry with Star Status recognition in OSHA's Voluntary Protection Program. This team award is one of the nation's highest honors for safety excellence.

Kentucky Thaws Out for Major Concrete Placement. After battling winter weather and an ice storm, the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) team placed more than 300 cubic yards of concrete for the Munitions Demilitarization Building (MDB). The recent placement was 38 inches thick and some future placements will be as much as 42 inches thick. The 87,000-square-foot MDB is where the chemical weapons will be disassembled, explosives removed and the agent neutralized. This milestone represents the first substantial concrete placement work on the plant's main processing building.



Pueblo Site Wins Star Status

PCAPP team members, from left, Johnny Carroll, Jennifer Wilson, Kevin Thomason, Zach Herlyck, Frank Russo and Paul Henry accept the Voluntary Protection Program flag awarded by OSHA, signifying the excellence of the PCAPP safety program.

“It highlights to the community, to our workforce and to other job sites how safety is so important to us. And we do have folks that come to the project and they've heard from other places they've worked that safety is important but they never really believed it... without question they believe it here.”

Jennifer Wilson, PCAPP Registered Nurse

PILOT PLANT UPDATES

Blue Grass Chemical Agent-Destruction Pilot Plant

Construction Update: The BGCAPP construction management team recently traded tools for packing boxes in February for the 100-yard trek from temporary trailers to the newly-completed Personnel Support Building, a two-story modular office structure. They will soon have new neighbors next door when the property management crew moves into the nearby Maintenance Building from a temporary off-site warehouse. Adding to the activity, concrete trucks will continue shuttling to and from the site as the team makes two or three major concrete placements per month during the coming year.

Design Update: The BGCAPP team will submit its revised design for the blast containment area of the Munitions Demilitarization Building (MDB) with its site safety plan to the Department of Defense Explosives Safety Board for approval this spring. Other facility design priorities include the above ground site utility systems, the Lab Filter Area, the MDB Filter Area, the Hydrolysate Storage Area and the Electronic Security System. Additionally, the team is developing plans to test two unique systems that are being designed for use at BGCAPP – a Metal Parts Treater and an Energetics Batch Hydrolyzer.

Acquisitions: The systems contractor has awarded nearly \$68 million in subcontracts, with 51 percent of those going to Kentucky businesses.



Bechtel Parsons Blue Grass staff direct an overhead crane to position a generator on the foundation for the Munitions Demilitarization Building. The generator will supply additional power for temporary lighting which will be used to illuminate early morning concrete placements.

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Pueblo Chemical Agent-Destruction Pilot Plant

Construction Update: Workers are currently transforming the Agent Processing Building (APB) from a steel shell into a building that will serve as the heart of the pilot plant. The APB will ultimately house the specialized equipment and systems that will destroy chemical agent. The PCAPP team is currently focused on the roofing and siding activities required to complete its external frame. Agent Hydrolyzer Tanks and Munitions Washout System Wash Water Tanks were already placed inside the building. Additionally, projects inside the Multipurpose Building continue, including electrical, HVAC, fire protection, plumbing and architectural work. The PCAPP team is also preparing for major equipment placements including cooling towers, chiller units and electrical switchgear houses.

Design Update: ACWA, in partnership with the U.S. Army Chemical Materials Agency, is about to begin an operational test of a Linear Projectile Mortar Disassembly system, or LPMD, which is a robot that will allow workers to take apart a chemical weapon without human involvement. At the Anniston Chemical Agent Disposal Facility in Alabama, the LPMD will be used during destruction operations this summer following testing and systemization. After completing the operation, the LPMD will be decontaminated, shipped to Colorado and reconfigured for use at PCAPP. The test program at Anniston will provide real world reliability-availability-maintainability data on the LPMD while materially assisting Anniston in destroying its remaining stockpile of mustard munitions. The LPMD is one of several unique systems that is being developed for the Pueblo pilot plant.

Acquisitions: The systems contractor has awarded \$176.2 million in subcontracts, with 54 percent going to Colorado businesses.



PCAPP Workers Take to the Sky

Large cranes take workers to the top of the Agent Processing Building to hang piping. The building will house the equipment and systems that will destroy the chemical weapons at the U.S. Army Pueblo Chemical Depot.



In PCAPP's Biotreatment Area, concrete was recently placed in foundations for tanks that will store hydrolysate, the byproduct of the neutralization process, prior to secondary treatment. Biotreatment is the secondary process that will be employed at the pilot plant; it uses ordinary sewage treatment bacteria to consume the organics in the hydrolysate.

NEXT 120 DAYS AT ACWA

- Program decisions regarding acceleration and hydrolysate disposition will be solidified as the President's Budget Request is finalized. ACWA will communicate these decisions to local stakeholders when the budget request is submitted to Congress.
- ACWA leadership is reviewing recommendations submitted in the National Research Council's report regarding explosive destruction technology (EDT) options for PCAPP and for BGCAPP. An EDT is already part of the PCAPP final design and may be considered for the BGCAPP design.

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.