

Monthly Status Briefing

November 2015



Blue Grass Chemical Agent-Destruction Pilot Plant



Program Executive Office
Assembled Chemical Weapons Alternatives



BGCAPP

Blue Grass Chemical
Agent-Destruction Pilot Plant

www.peoacwa.army.mil



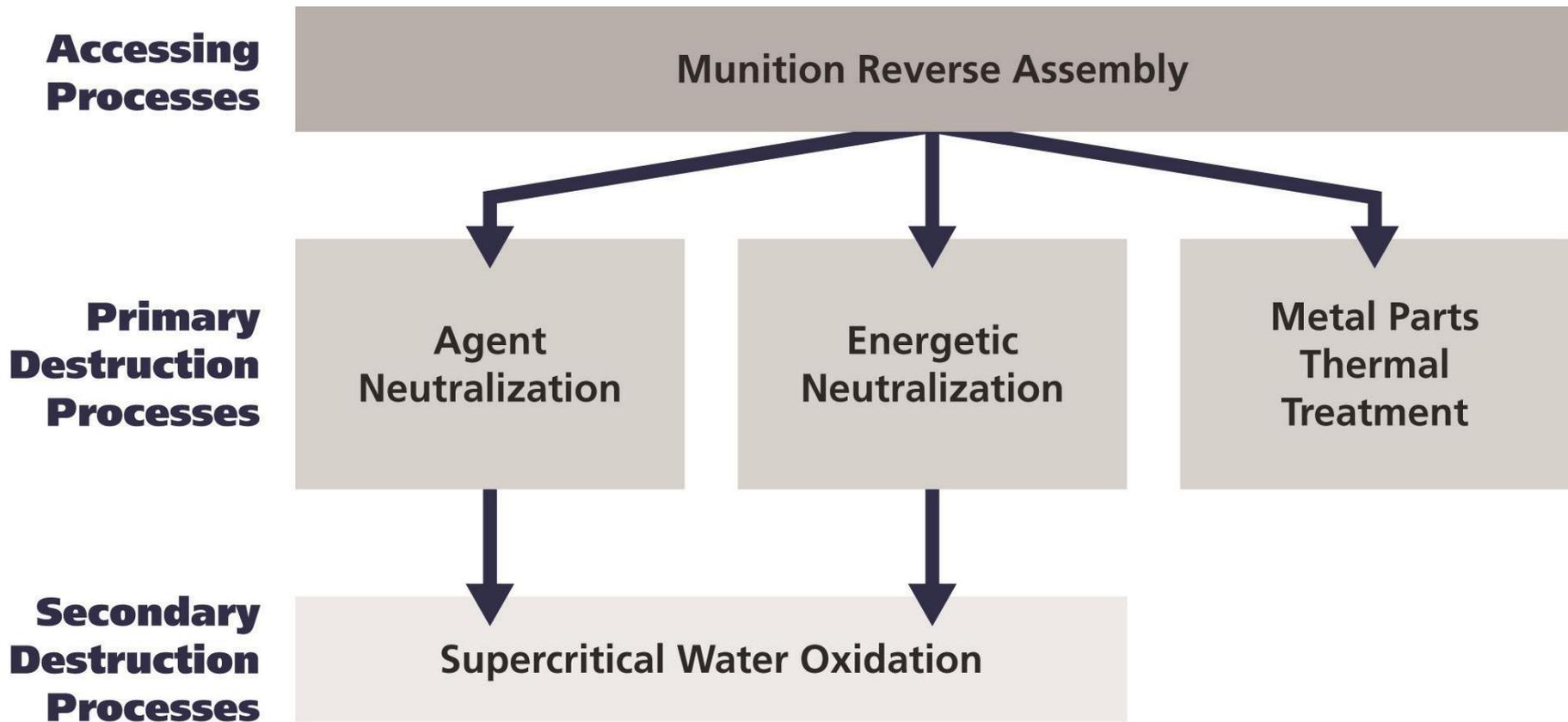
A PARTNERSHIP FOR SAFE CHEMICAL WEAPONS DESTRUCTION

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, Kentucky.
- The main plant technology selected by the Department of Defense to destroy the Blue Grass VX and GB (Sarin) nerve agent weapons stockpile is neutralization followed by supercritical water oxidation.
- The technology selected by the Department of Defense to destroy the Blue Grass mustard (H) agent weapons stockpile is Explosive Destruction Technology (EDT), specifically the Static Detonation Chamber, or SDC.
- The Program Executive Office, Assembled Chemical Weapons Alternatives, 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 Government Services Inc., along with teaming partners AECOM, Battelle, General Atomics and GP Strategies Corporation, is the systems contractor selected to design, build, systemize, pilot test, operate and close BGCAPP.

Main Plant Destruction Technology

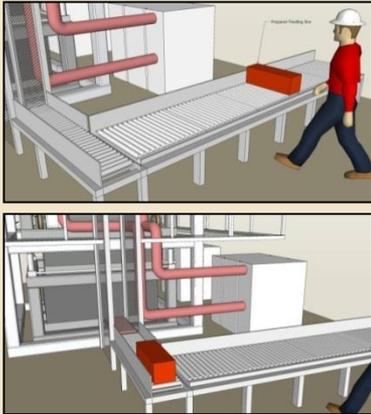
Neutralization followed by supercritical water oxidation will be used to destroy the nerve agent weapons stockpile.



Explosive Destruction Technology

SDC will be used to destroy the mustard agent weapons stockpile.

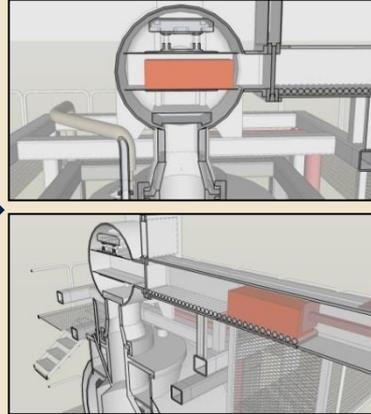
Step 1



Workers place mustard projectiles in feed tray with aid of material-handling equipment

System allows for minimal handling of projectiles by workers

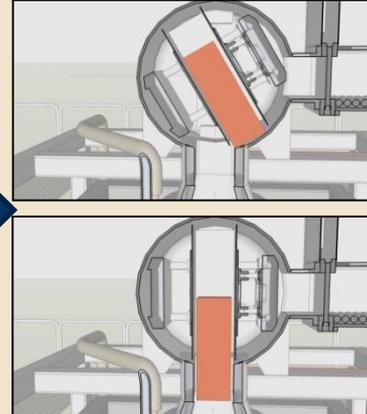
Step 2



Projectiles conveyed to top of vessel

For added safety, it is a fully automatic, double air-lock feeding conveyor system

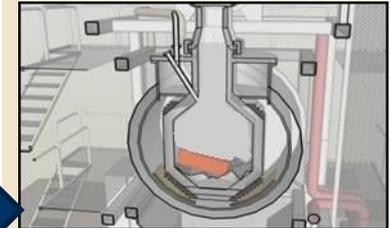
Step 3



Projectiles fed into electrically heated detonation chamber

Chamber temperature maintained above critical temperature of energetics inside the projectiles

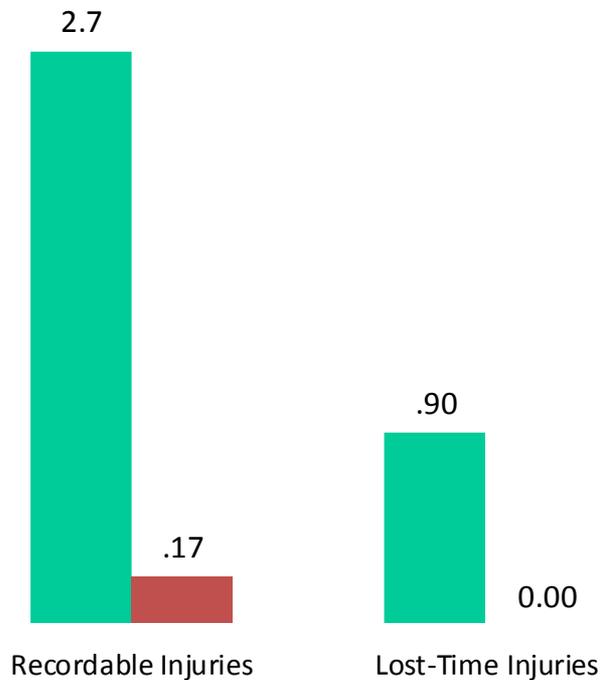
Step 4



High heat detonate/deflagrate projectiles, mustard agent and energetics destroyed by explosion/thermal decomposition

Off-gases treated by air pollution control system

Safety



- Safety remains a core value of the project workforce
- Re-certified Occupational Safety and Health Administration Voluntary Protection Program Star Status site
- Lost-time injury rate is **100 percent lower** and recordable injury rate is **93 percent lower** than industry average
- As of Oct. 31, 2015, the project has completed 5,280,493 hours and 549 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—847**
- **Richmond, Kentucky—**
 - Nonmanual—**835**
 - Local hires—**28 percent**
- **Other locations—12**
 - Pasadena, California
 - San Francisco, California



One of the last construction workers at the Blue Grass Chemical Agent-Destruction Pilot Plant walks past the Hydrolysate Storage Area tanks and emergency vehicles from the Blue Grass Army Depot during a joint training exercise.

- **Acquisitions to date**
 - \$151.7 million spent with Kentucky companies
 - \$89.5 million spent in Madison and surrounding counties
- **Payroll to date**
(includes nonmanual and craft)
 - \$787 million of local payroll paid



A worker finishes a weld on a pipe inside the Munitions Demilitarization Building.

BGCAPP Progress



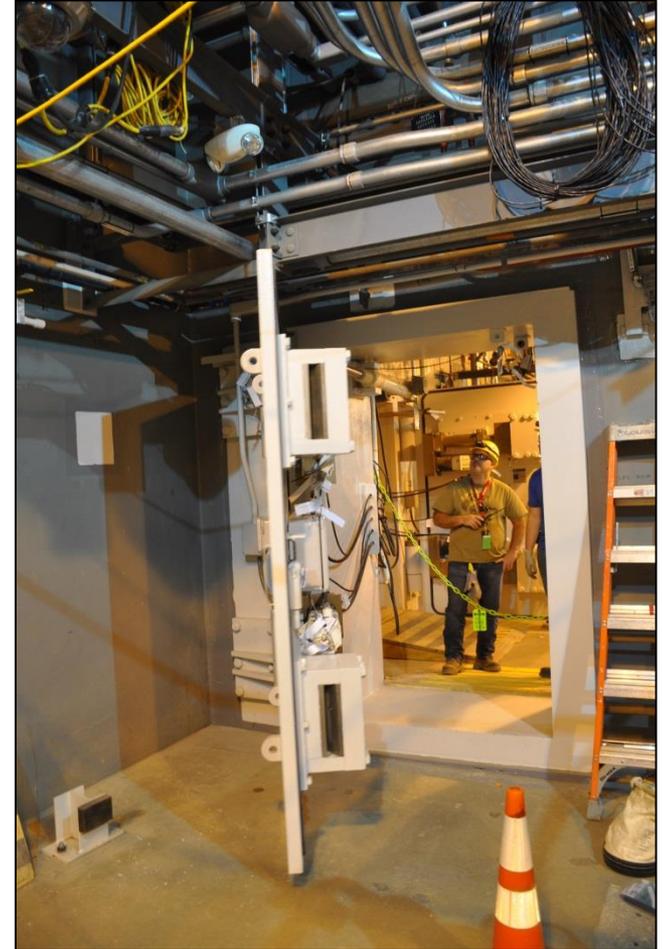
Northwestern Corner - Observation Point

- 1** Personnel Maintenance Building
- 2** Medical Facility
- 3** Hydrolysate Storage Area
- 4** Control and Support Building
- 5** Munitions Demilitarization Building (MDB) Filter Banks
- 6** MDB
- 7** Container Handling Building
- 8** EDT Facility Site
- 9** Utility Building
- 10** Supercritical Water Oxidation Building (not visible in photo)
- 11** Laboratory Building (not visible in photo)

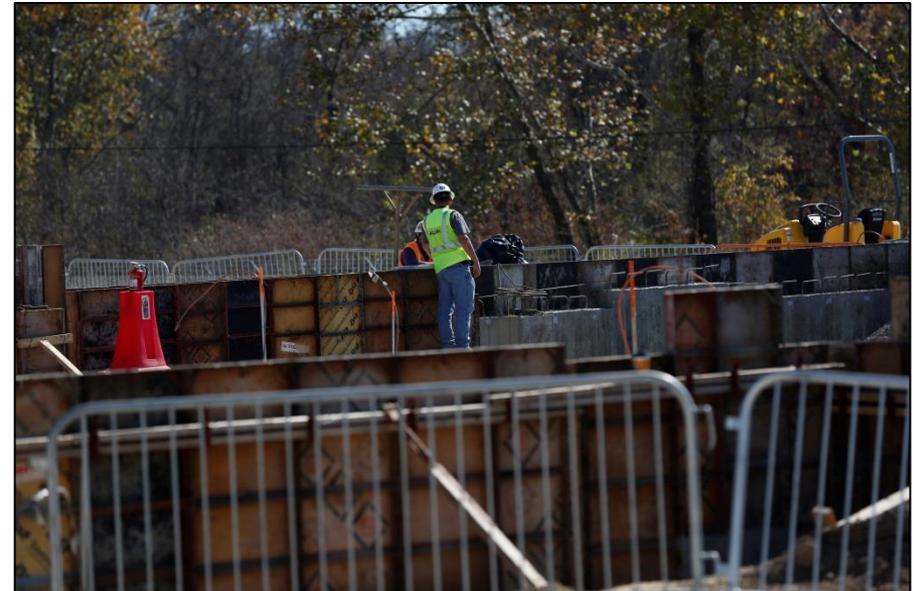
Main Plant Progress: Systemization



Systemization efforts continue with the testing of controls. A team conducts opening and closing tests on the blast door leading from the Explosive Containment Room inside the Munitions Demilitarization Building.



Explosive Destruction Technology (EDT) Facility Site Progress



Left: A backhoe operator moves gravel in front of the Explosive Destruction Technology (EDT) Service Magazine. Right: Workers continue to install forms for a horizontal concrete wall placement at the EDT site. Construction is 59% complete at the site.

Stakeholder Outreach: Construction Complete Media Day



News reporters from central Kentucky toured the Blue Grass Chemical Agent-Destruction Pilot Plant Oct. 27, 2015, to mark the end of substantial construction complete. Left: Jeff Brubaker, site project manager, listens as a reporter poses a question inside the Explosive Containment Vestibule. Right: Brubaker provides information on the function of the Energetics Neutralization Reactor.

Community Involvement

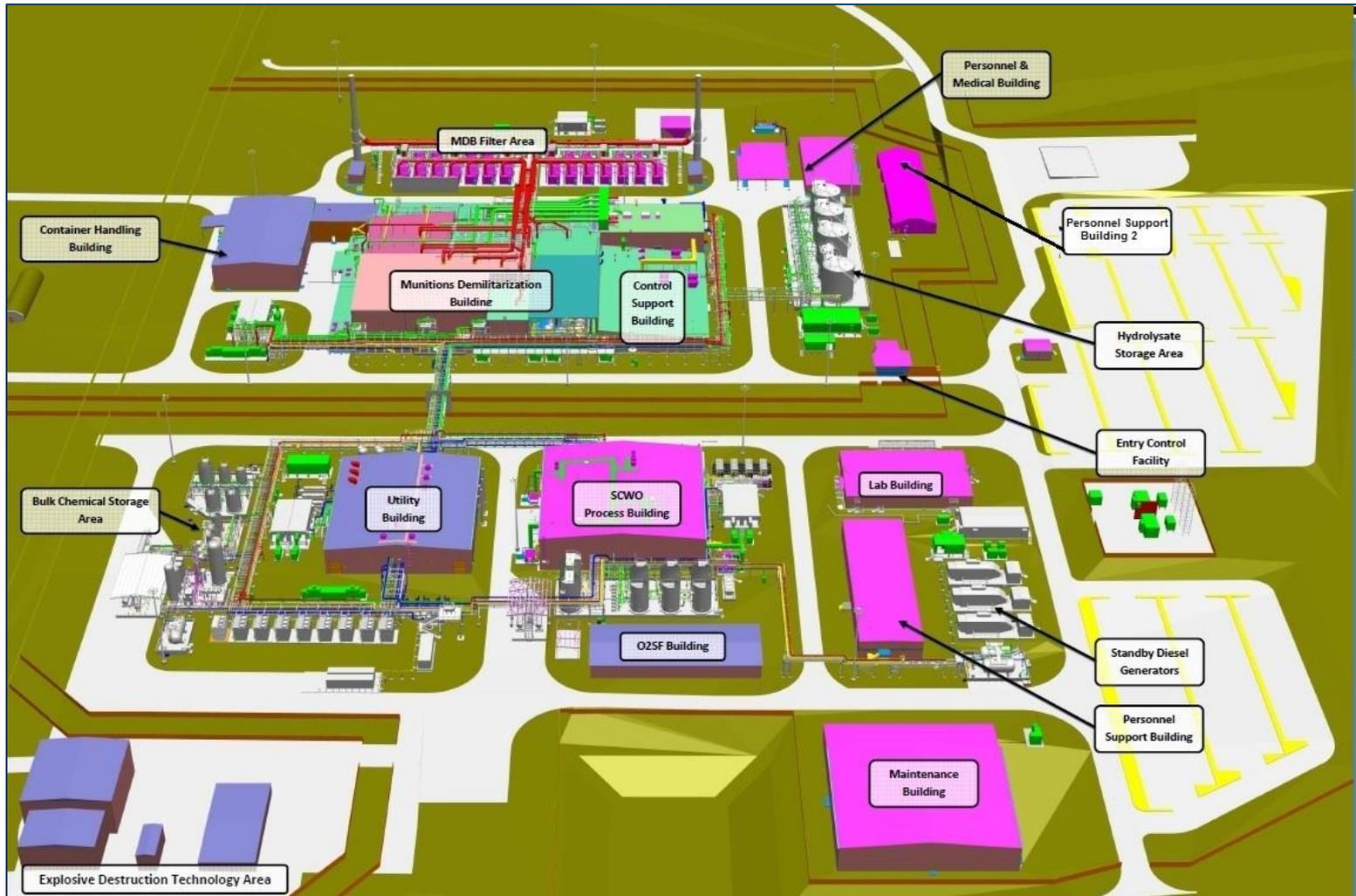


Left: Bechtel Parsons Blue Grass was named the Corporate Partner of the Year by the American Diabetes Association Bluegrass. The award was presented at the association's Kiss a Pig fundraising event in Lexington in November.



Right: Bechtel Parsons Blue Grass staff hosted Madison County Public School teachers for a professional development day training program. The teachers received a project briefing, participated in an hands-on exercise to take to their classrooms and toured the site.

Blue Grass Chemical Agent-Destruction Pilot Plant



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