

Monthly Status Briefing

April 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



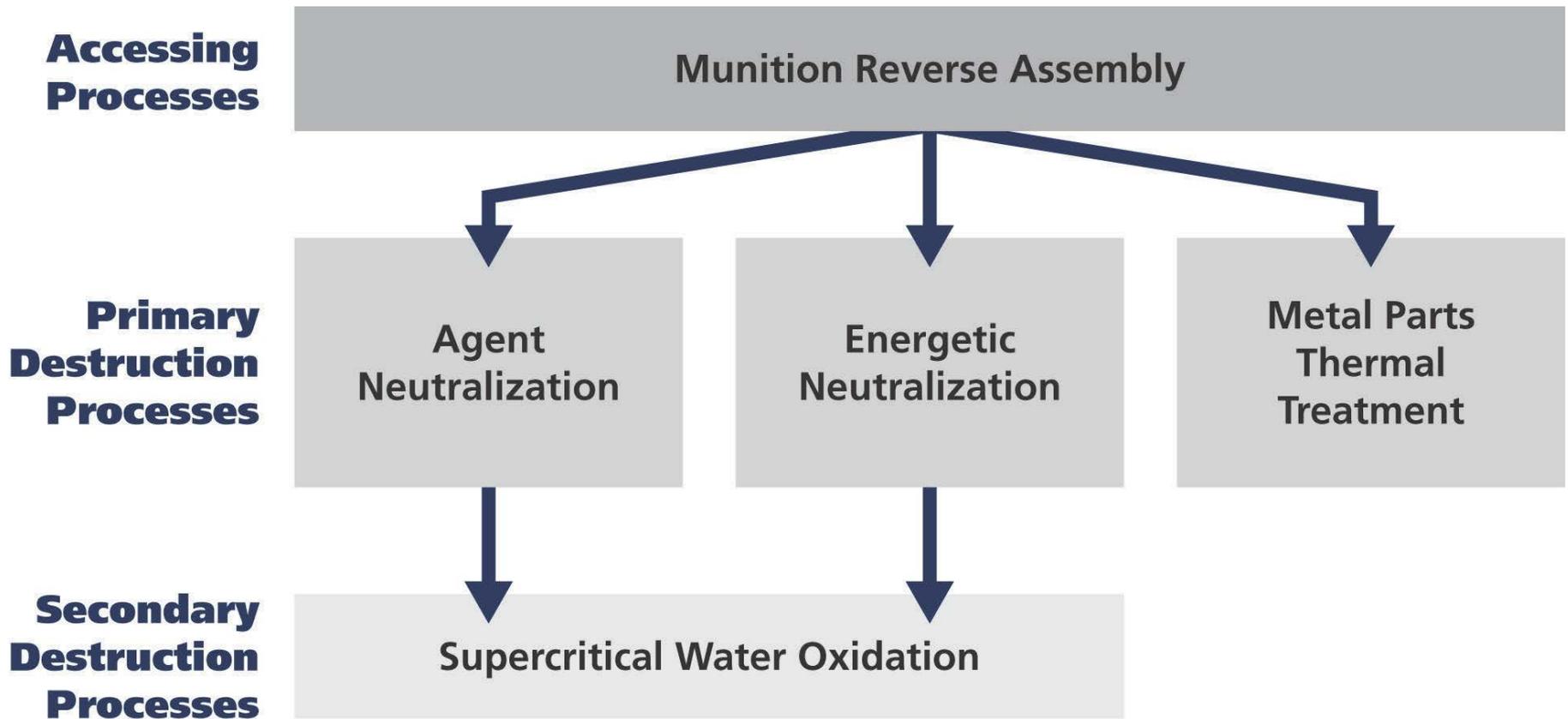
A PARTNERSHIP FOR SAFE CHEMICAL WEAPONS DESTRUCTION

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, Ky.
- 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 (SCWO).
- The technology selected by the Department of Defense to destroy the Blue Grass mustard (H) agent weapons stockpile is Explosive Destruction Technology, specifically the Static Detonation Chamber or SDC.
- The Program Executive Office, Assembled Chemical Weapons Alternatives (PEO ACWA) Program, headquartered at Aberdeen Proving Ground, Md., 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

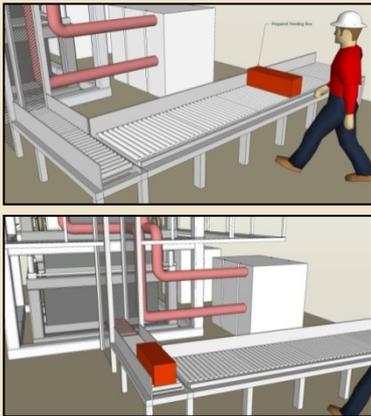
Neutralization followed by supercritical water oxidation will be used to destroy the nerve agent weapons stockpile.



Explosive Destruction Technology Static Detonation Chamber (SDC)

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

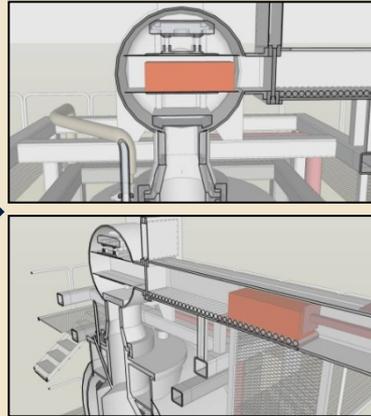
Step 1



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

System allows for single handling of projectiles by workers

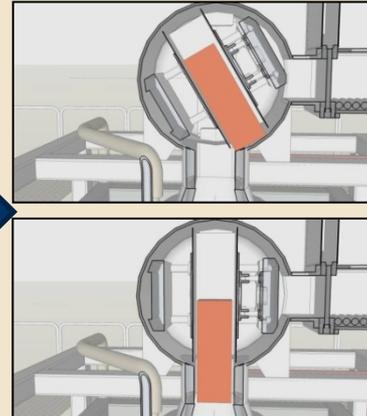
Step 2



Projectiles conveyed to top of vessel

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

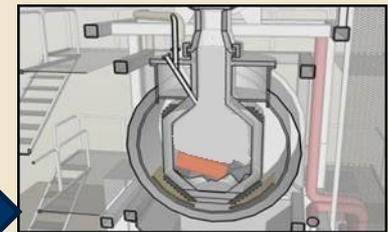
Step 3



Projectiles fed into electrically heated detonation chamber

Chamber temperature maintained above critical temperature of energetics inside the projectiles

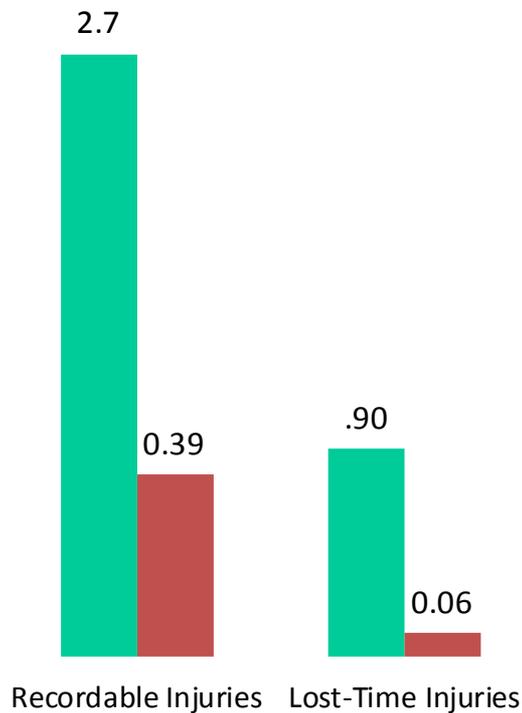
Step 4



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

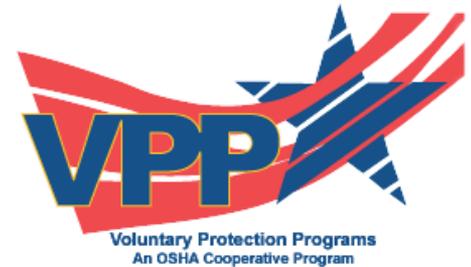
Off-gases treated by air pollution control system

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 **93 percent lower** and recordable injury rate is **86 percent lower** than industry average
- As of March 31, 2015, the project has completed 3,309,550 hours and 335 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—1,636**
- **Richmond, Ky.—1,623**
 - Nonmanual—851
 - Craft—772
 - Local hires—57 percent
- **Other locations—13**
 - Pasadena, Calif.
 - San Francisco, Calif.



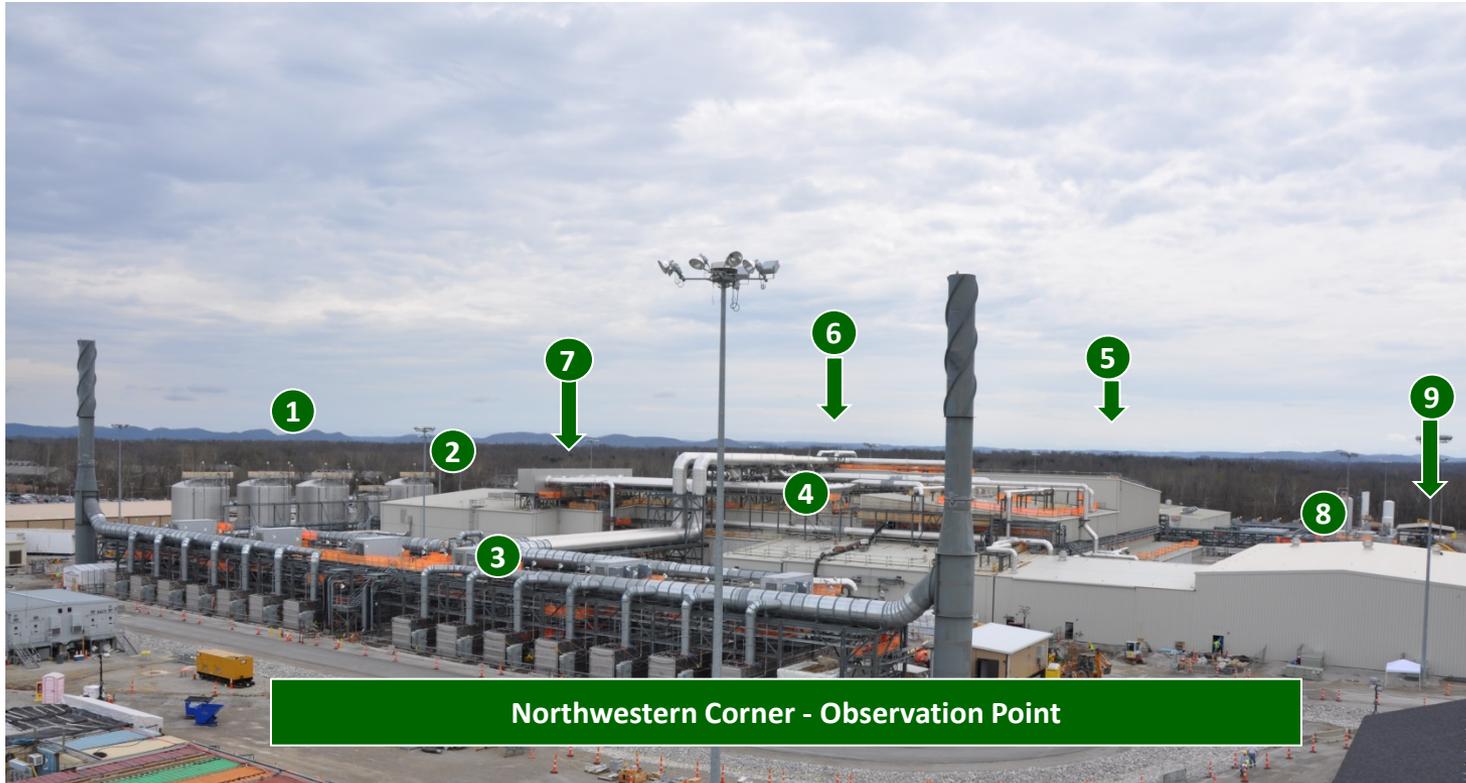
Equipment Superintendent Phil Milliner hands over a procedure to Crane Operator Chris Gaddie prior to a crane load test at the Explosive Destruction Technology Facility site.

Economic Impact

- **Acquisitions to date**
 - \$138.5 million spent with Kentucky companies
 - \$78.8 million spent in Madison and surrounding counties

- **Payroll to date**
(includes nonmanual and craft)
 - \$711 million of local payroll paid

Main Plant Work in Progress



- 1 Hydrolysate Storage Area
- 2 Control and Support Building
- 3 Munitions Demilitarization Building (MDB) Filter Banks
- 4 MDB
- 5 Utility Building
- 6 Supercritical Water Oxidation Building (not visible in photo)
- 7 Laboratory Building (not visible in photo)
- 8 Container Handling Building
- 9 Explosive Destruction Technology Facility Site

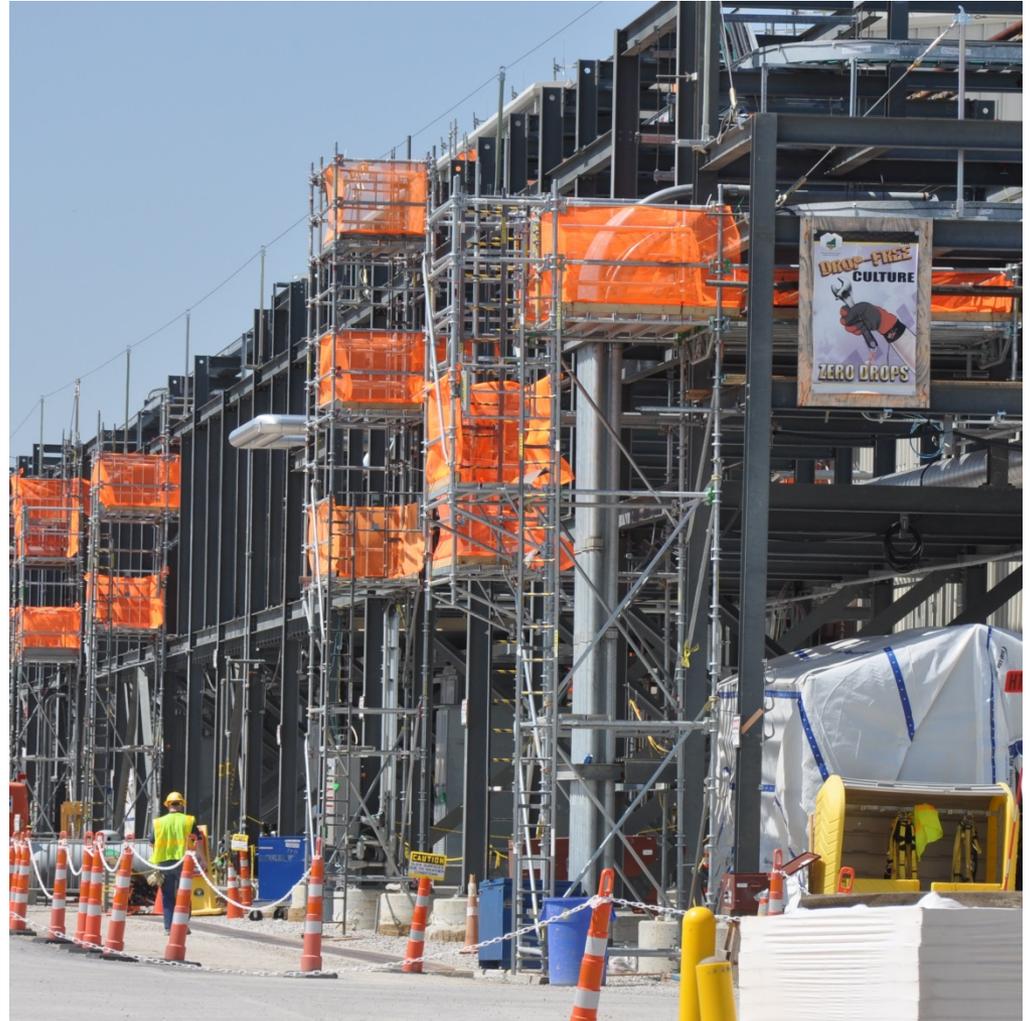
Entry Control Facility



After being hidden behind plastic wrapping for much of the winter, the Entry Control Facility is now visible and closer to completion. This facility will be used by workers to enter and exit the site when operations begin.

Focus on safety continues

While BGCAPP is 93.5% construction complete, safety remains a top priority. The “Drop Free” sign acts as a reminder to workers using scaffolding around the Control Support Building and the Supercritical Water Oxidation Processing Building to secure their tools while working.





Above, Blue Grass plant employees and their families help support Big Brothers, Big Sisters of the Bluegrass through the annual Bowl for Kid's Sake event. Contributions to the charity totaled more than \$10,000.

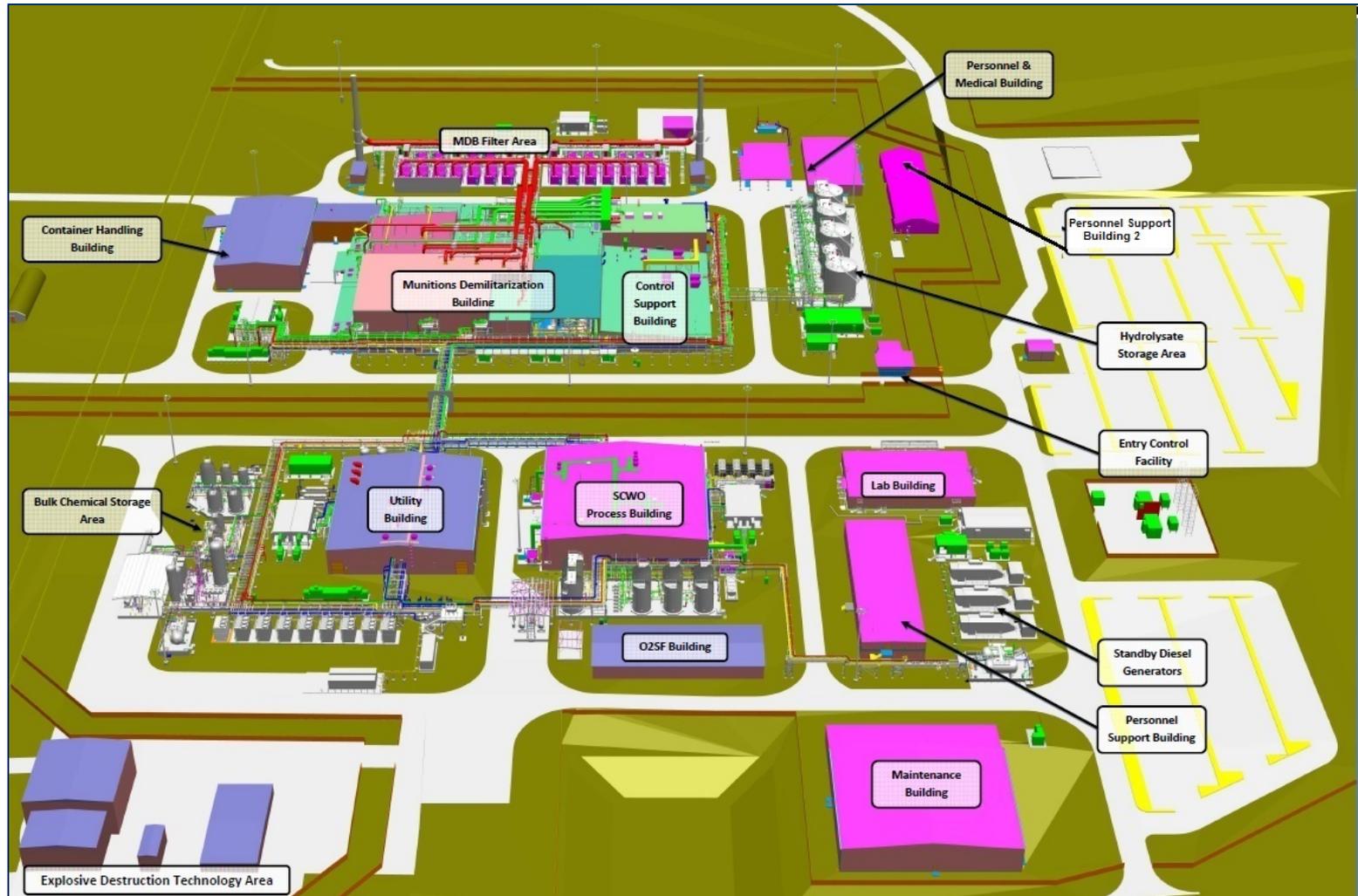
At left, Conrad Whyne, Assembled Chemical Weapons Alternatives program executive officer, presents the Commander's Award for Public Service to Kent Clark, former Madison County Judge-Executive. Clark was recognized for his years of service as co-chair of the Chemical Destruction Community Advisory Board.

Explosive Detonation Technology Building



Excavation work has started for the Explosive Destruction Technology facility that will house the Static Detonation Chamber (SDC). The SDC is being assembled in Europe and will undergo Factory Acceptance Testing in May.

Blue Grass Chemical Agent-Destruction Pilot Plant



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