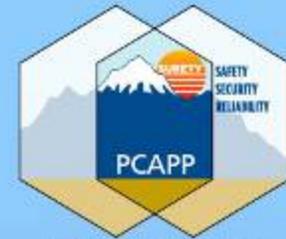


Monthly Status Briefing

March 2010



Pueblo Chemical Agent-Destruction Pilot Plant

PCAPP
Pueblo Chemical
Agent-Destruction Pilot Plant

A PARTNERSHIP FOR SAFE CHEMICAL WEAPONS DESTRUCTION

Project Background



- **The Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) will safely destroy 2,611 tons of mustard agent in mortar rounds and artillery projectiles stored at the U.S. Army Pueblo Chemical Depot.**
- **Neutralization followed by biotreatment is the technology selected by the Department of Defense to destroy the Pueblo chemical weapons stockpile.**
- **The Program Manager, Assembled Chemical Weapons Alternatives (ACWA), 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 Colorado and Kentucky.**
- **The Bechtel Pueblo Team, a partnership of Bechtel National, Inc.; the EG&G Division of URS Corporation; Parsons; and Battelle Memorial Institute, is the systems contractor selected to design, build, systemize, pilot test, operate and close PCAPP.**



Bechtel Pueblo Team



Systems Contractor

- Project management
- Business services
- Safety and quality



- Design/engineering
- Procurement/subcontracting
- Construction

Teaming Subcontractors

- Systemization
- Pilot testing
- Operations
- Closure

- Process design
- Process equipment fabrication
- Support to systemization and operations

- Environmental permitting and compliance
- Laboratory management
- Pilot testing

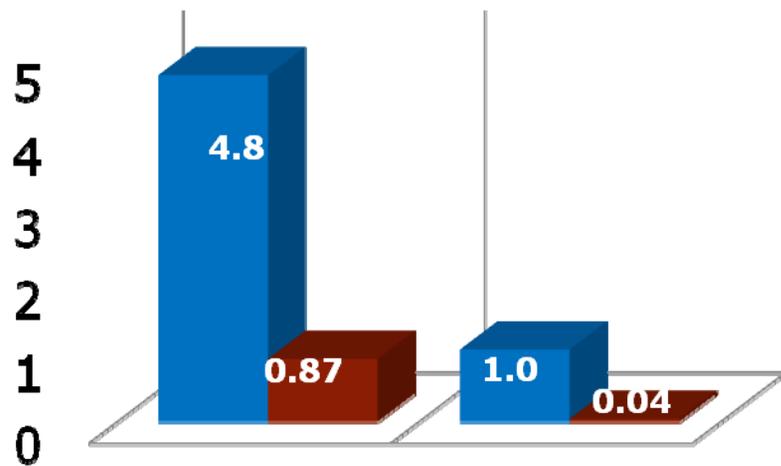


Staffing

- Bechtel Pueblo Team non-manual: **344**
 - Pueblo – 341 (96 local hires)
 - Other locations – 3
- Construction Workers:
 - Bechtel direct-hire – 236
 - Subcontractor personnel – 79



Safety



Recordable Injuries **Lost-Time Injuries**

- Non-Residential Building Construction Industry Average
- Bechtel Pueblo Team

Bureau of Labor Statistics, based on accidents per 200,000 job hours

As of January 31, 2010, the PCAPP project staff has accomplished:

- 494 Safe Work Days
- 1,690,655 Safe Work Hours



Subcontract Awards

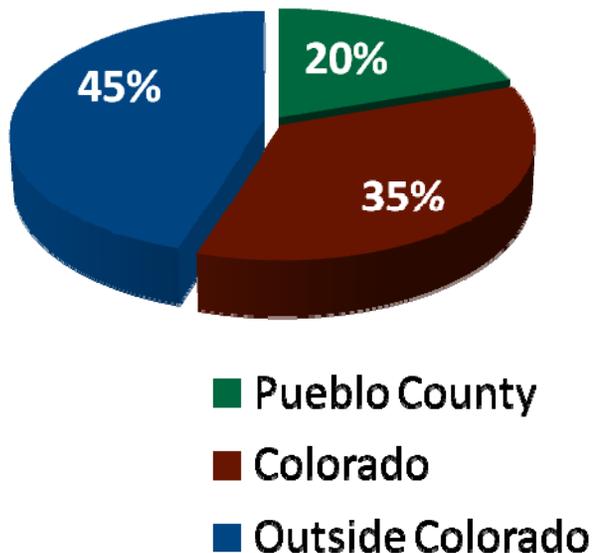
Inception to date, as of Feb. 28

\$367.8 Million

\$ 72.5 Million to Pueblo County Businesses (20%)

\$129.5 Million to Colorado Businesses (Outside Pueblo County, 35%)

\$165.8 Million to Businesses Outside Colorado (45%)



Acquisition Awards Status



FY 2010 Upcoming Request for Proposals

Materials

- Misc. construction & architectural materials
- Public Address/General Alarm System
- Tank Agitators
- Treaty Trailer Facilities
- Misc. piping items

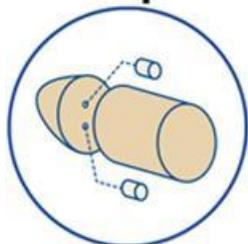
Subcontracts

- Piping equipment and heat tracing
- Enhanced Reconfiguration Building membrane roof liner
- Chemical Limited Area security fencing



Destruction Technology

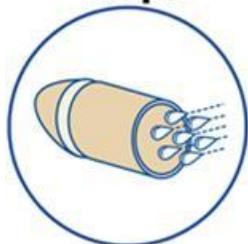
Step 1



REMOVAL OF ENERGETICS

Robotic equipment removes energetics (explosives) from the weapon. The energetics will be disposed of at a permitted facility off site.

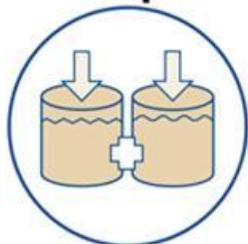
Step 2



REMOVAL OF MUSTARD AGENT

The inside of the weapon is remotely accessed, and mustard agent is washed out with high-pressure water.

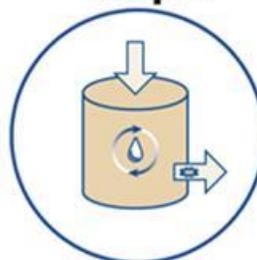
Step 3



NEUTRALIZATION OF MUSTARD AGENT

The mustard agent is neutralized with caustic solution and hot water. The byproduct is called hydrolysate.

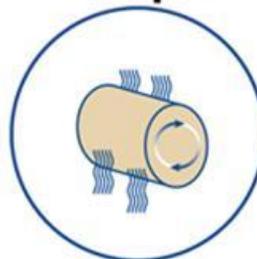
Step 4



BIOTREATMENT

The hydrolysate is treated with microbes that break down the solution into water and biosludge. Water is recycled in the plant, and biosludge is shipped for disposal at a permitted facility.

Step 5

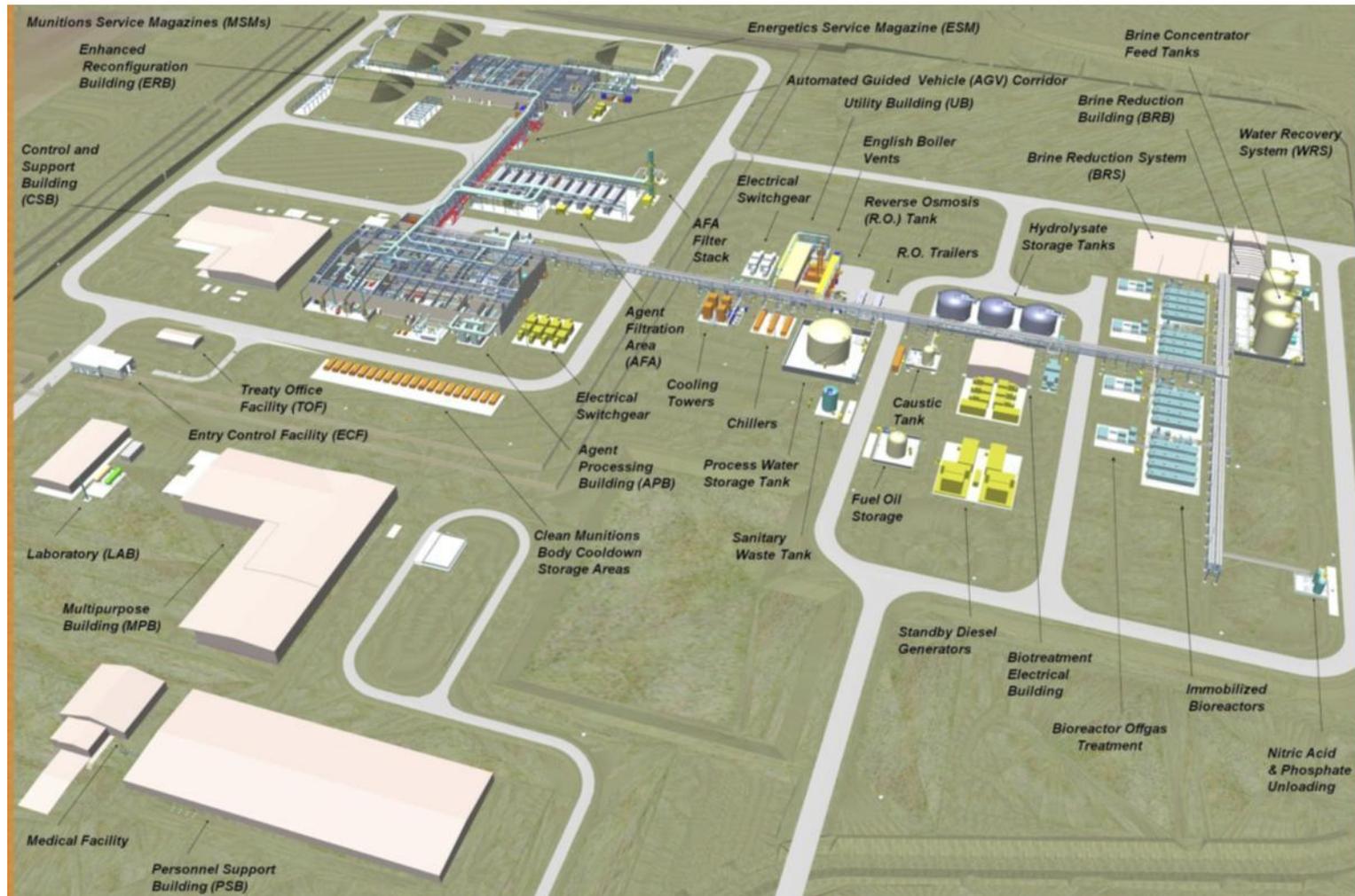


DISPOSAL OF METAL PARTS

Metal parts are heated to 1,000 degrees Fahrenheit for 15 minutes and can then be recycled.

Neutralization followed by biotreatment will be used to destroy the Colorado chemical weapons stockpile.

Pueblo Chemical Agent-Destruction Pilot Plant—Site Plan



PCAPP Site Overview



Northwestern Corner - Observation Point

- 1 Enhanced Reconfiguration Building
- 2 Automated Guided Vehicle Corridor
- 3 Agent Processing Building
- 4 Biotreatment Area
- 5 Air Filtration Area
- 6 Munitions Service Magazine
- 7 Control and Support Building
- 8 Energetics Service Magazine



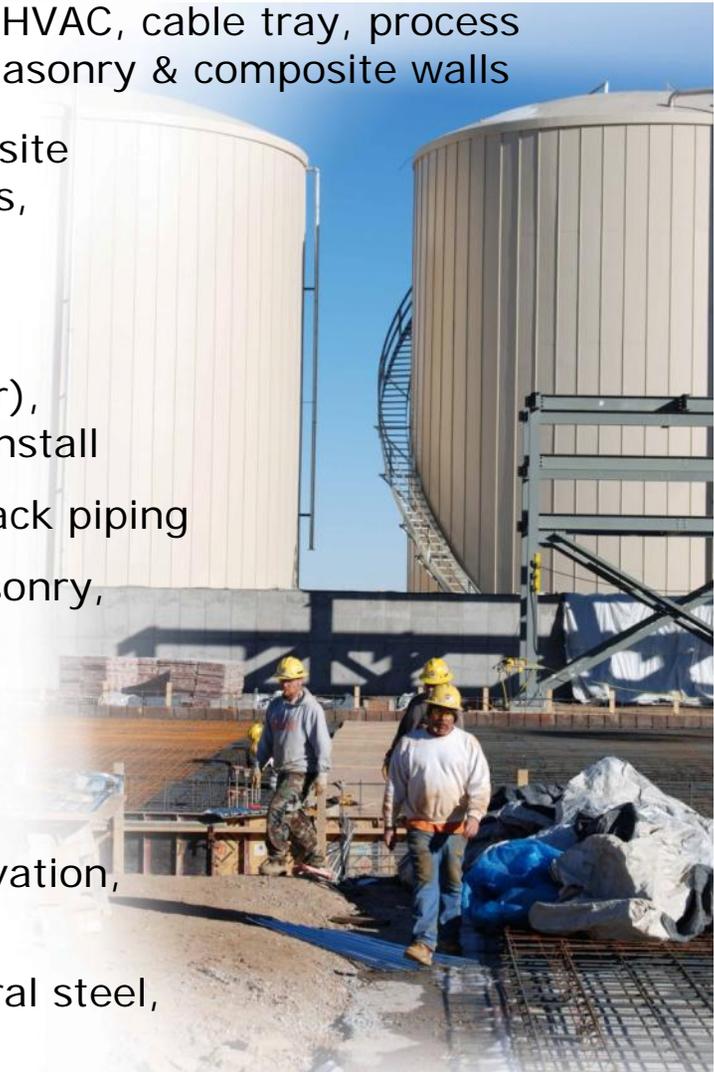
Construction Status – Complete

- Munitions & Energetic service magazine pre-cast concrete arches
- Control and Support & Biotreatment Electrical Buildings siding and roofing
- Standby Diesel Generator foundation
- Agent Filtration Area Electrical Building foundation
- All erected field tanks
- Entry Control Facility concrete foundation walls and slab
- Off-Gas concrete foundation pads



Construction Status – In Progress

- **Agent Processing Building**—misc. platform erection, HVAC, cable tray, process piping, electrical and mechanical equipment, interior masonry & composite walls
- **Enhanced Reconfiguration Building**—interior composite walls/roof, HVAC, structural roof and side duct supports, Explosion Containment Rooms overhead crane & rails
- **Brine Tank**—formwork, concrete for containment walls
- **Agent Filtration Area**—electrical building set (modular), cable tray/conduit and supports, vestibule enclosures install
- **Balance of Facilities**—cable tray and supports, pipe rack piping
- **Subcontractors**—HVAC, Fire Protection/detection, Masonry, Architectural, coatings, Fire Proofing, Insulation HVAC, Chemical Limited Area fencing
- **Control Support Building**—HVAC, fire protection, interior wall framing
- **Immobilized Cell Bioreactor & Off-gas Pads**—excavation, rebar, formwork
- **ESM & MSM Magazines**—rebar and formwork/structural steel, siding and roofing



Energetics Service Magazine



Concrete, pre-cast arches for the Energetics Service Magazine were assembled in early March.

Munitions Service Magazines



Pre-cast arches for three Munitions Service Magazines (above) and the Energetic Service Magazine have been installed. Eventually, these service magazines will be earthen-covered, similar to existing igloos that store chemical munitions.

Agent Filtration Area



Above-ground duct work covers the entire Agent Filtration Area.



Biotreatment Area



Workers place concrete for the Immobilized Cell Bioreactors (ICB). The ICBs will be arriving at the site at the end of the summer.



Biotreatment Area



Brine Concentrator Feed tanks (left) and Hydrolysate Storage Tanks (right) can be seen in an aerial view of the site. The Enhanced Reconfiguration Building is in the foreground.

Contact Information



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U.S. Army Element, Assembled
Chemical Weapons Alternatives

