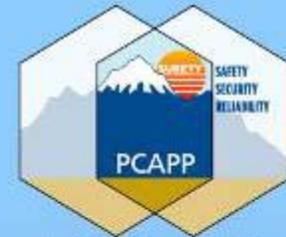


# Monthly Status Briefing

*February 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

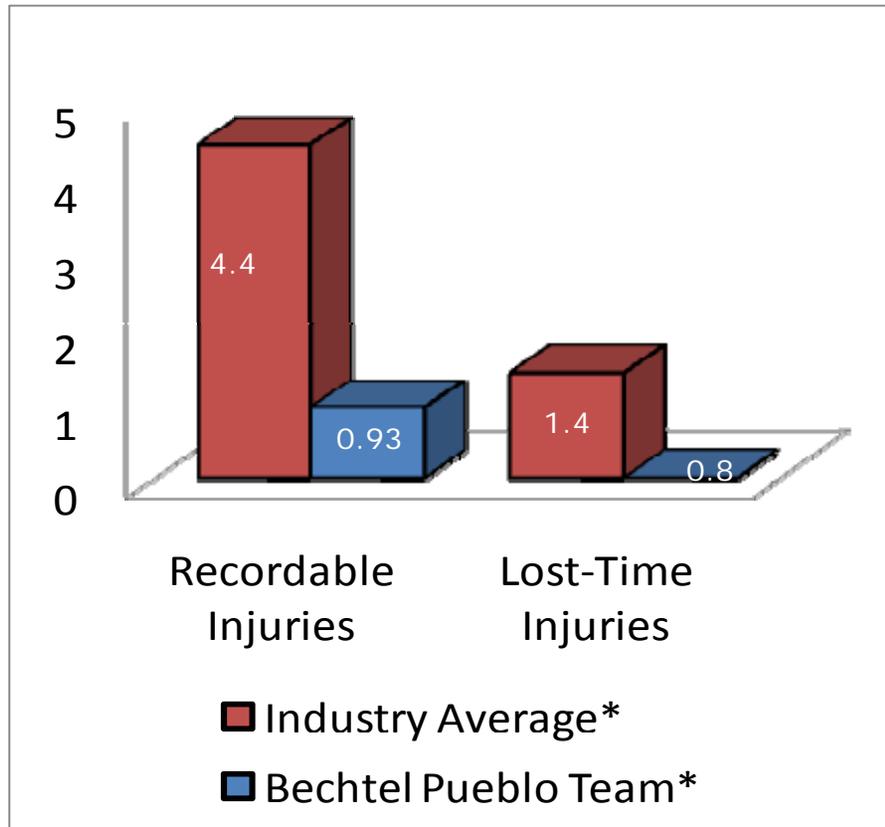


# Staffing

- Bechtel Pueblo Team non-manual: **336**
  - Pueblo – 332 (92 local hires)
  - Other locations – 4
  
- Construction Workers:
  - Bechtel direct-hire – 213
  - Subcontractor personnel – 108



# Safety



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

- 466 Safe Work Days
- 1,567,031 Safe Work Hours



\*accidents per 200,000 job hours



# Subcontract Awards

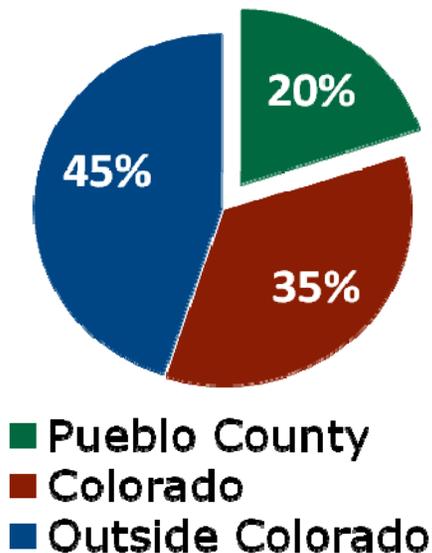
## Inception to date, as of Jan. 31

**\$365 Million**

\$ 72 Million to Pueblo County Businesses (20%)

\$128 Million to Colorado Businesses (Outside Pueblo County, 35%)

\$165 Million to Businesses Outside Colorado (45%)



# Acquisition Awards Status

## FY 2010 Upcoming Request for Proposals

### Materials

- Misc. construction & architectural materials
- Structural trenches & sumps
- Process heater & cooler
- Centrifugal pumps
- Misc. piping items

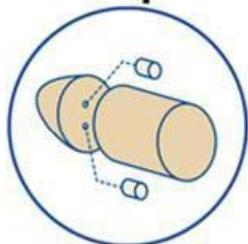
### Subcontracts

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



# Destruction Technology

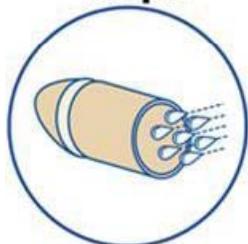
## Step 1



### REMOVAL OF ENERGETICS

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

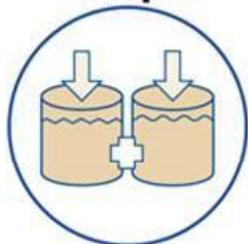
## Step 2



### REMOVAL OF MUSTARD AGENT

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

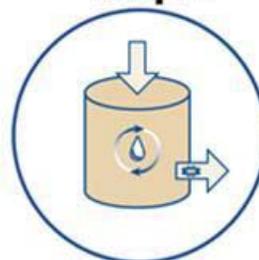
## Step 3



### NEUTRALIZATION OF MUSTARD AGENT

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

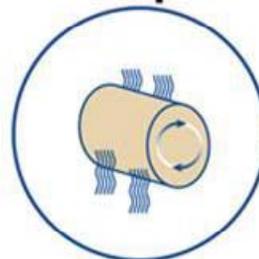
## Step 4



### 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

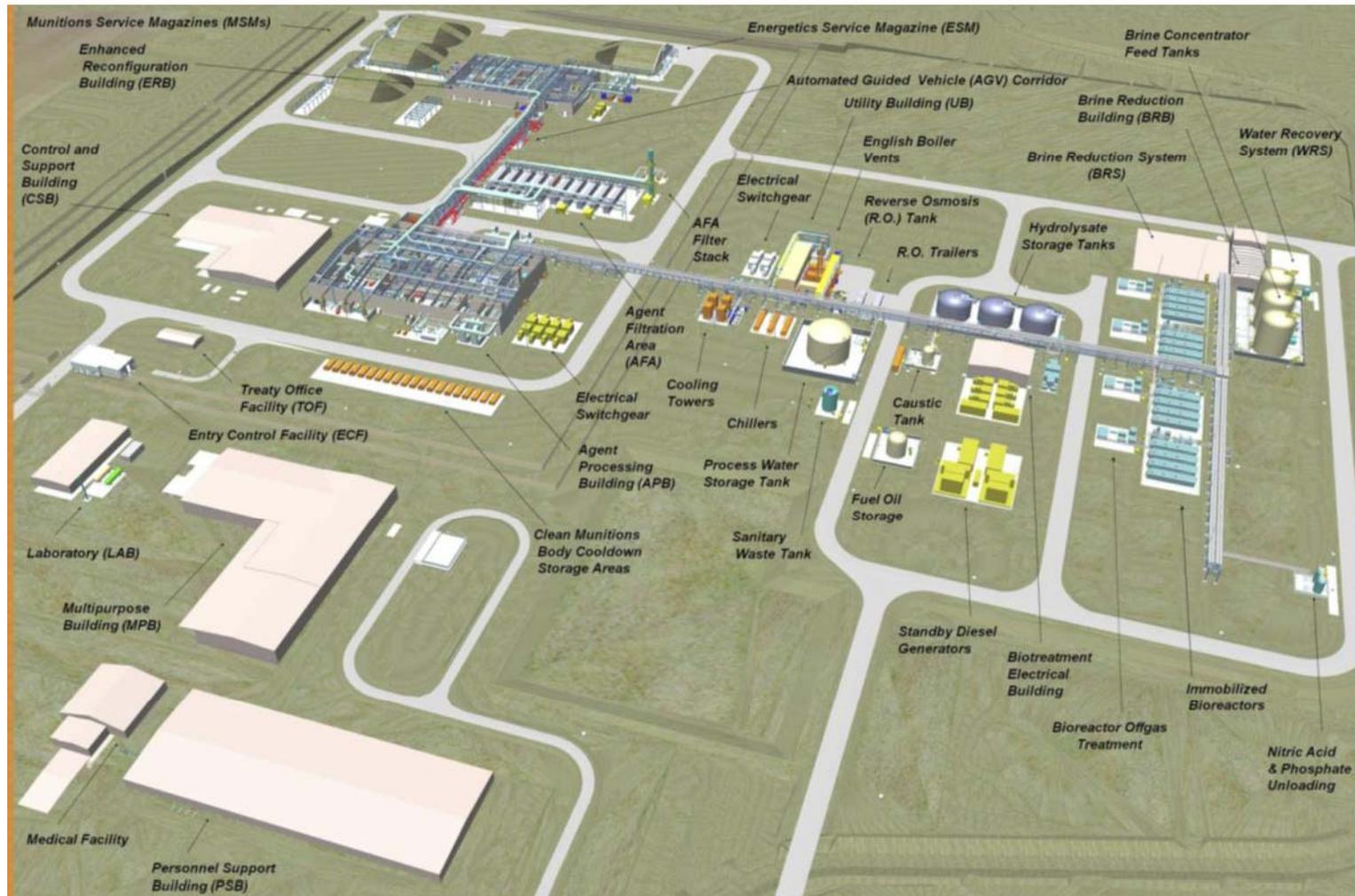


### DISPOSAL OF METAL PARTS

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



# Construction Status – Complete

- Munitions & Energetic service magazine and corridor foundations
- Biotreatment electrical building foundation
- Standby Diesel Generator foundation
- Enhanced Reconfiguration Building explosion containment room reinforced concrete structure
- Control and Support Building siding and roof
- Entry Control Facility concrete foundation walls and slab



# 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
- **AFA Electrical Building** – excavation, electrical duct bank
- **BEB Building** – siding and roofing
- **Balance of Facilities** – cable tray and supports
- **Field Erected Tanks** – coatings and insulation
- **Subcontractors** – HVAC, Fire Protection/detection, Masonry, Architectural, coatings, Fire Proofing
- **ESM & MSM Magazines** – precast panels erection, rebar and formwork/structural steel, siding and roofing
- **Control Support Building** – HVAC, fire protection, interior wall framing
- **Immobilized Cell Bioreactor & Off-gas Pads** – excavation, rebar, formwork



# Enhanced Reconfiguration Building



**Three Munitions Service Magazines (MSM) are being installed. MSMs provide buffer storage for munitions, allowing 24/7 operations.**



# Agent Filtration Area



**Workers connect HVAC atop the Agent Filtration Area. The filter stack is in the background.**

# Biotreatment Area



**All three Brine Concentrator Feed Tanks have insulation and coatings. Work continues on the mud mats for the Immobilized Cell Bioreactors.**



# Biotreatment Area



**Siding is currently being placed on the Biotreatment Electrical Building.**

# Control and Support Building



**Fully enclosed is the Control and Support Building where workers continue to work inside on HVAC, interior walls and fire protection.**



# Contact Information



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U.S. Army Element, Assembled  
Chemical Weapons Alternatives

