

# Monthly Status Briefing

*December 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 (PCD).
- 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 Colorado and Kentucky.
- The Bechtel Pueblo Team (BPT) is a partnership of Bechtel National, Inc., URS, Parsons, and Battelle Memorial Institute. The BPT functions as the systems contractor selected to design, build, systemize, pilot test, operate, and close the 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



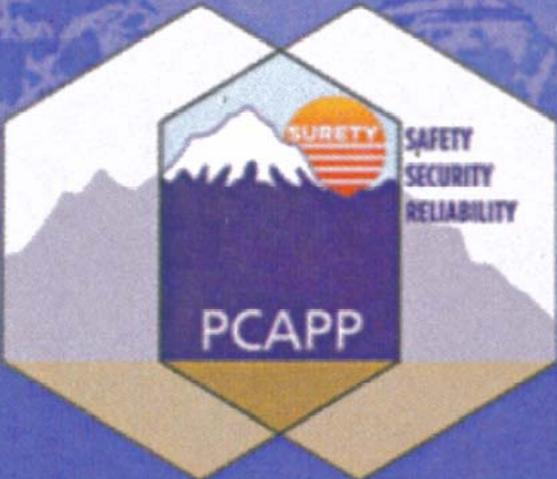
Pueblo Chemical Agent  
Destruction Plant Feed

# Staffing

- Bechtel Pueblo Team non-manual: **421**
  - Pueblo: 416 (127 local hires)
  - Other locations: 5
- Construction Workers:
  - Bechtel direct-hire craft workers: 348
  - Subcontractor personnel: 120



# Employment Opportunities



Pueblo Chemical Agent-Destruction Pilot Plant

## Employment Opportunities

Hotline  
(719) 549-4003

Website  
<http://pueblo.bechtel.com>

Pueblo Chemical Agent  
Destruction Pilot Plant

*"A Partnership for Safe Chemical Weapons Destruction."*



As of November 30, 2010,  
PCAPP Project staff have accomplished:

- 769 Safe Work Days
- 2,922,027 Safe Work Hours



# Subcontract Awards

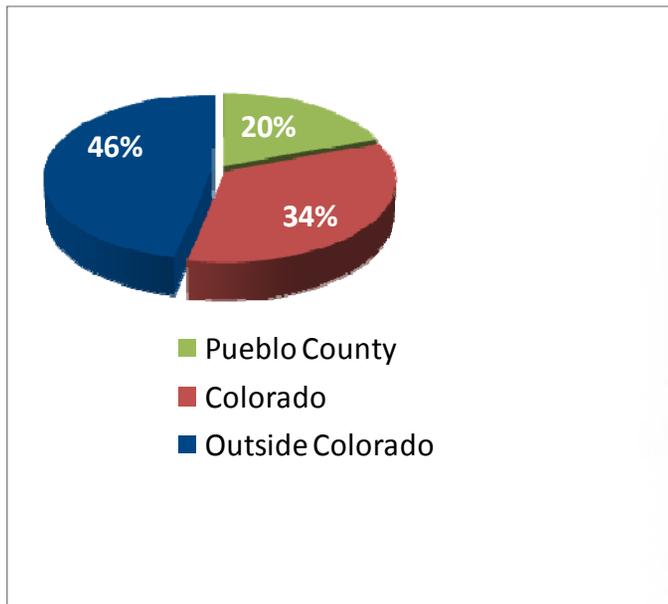
## Inception to date, as of Nov. 30

**\$410.4 Million**

**\$80.6 Million to Pueblo County Businesses (20%)**

**\$139.1 Million to Colorado Businesses (Outside Pueblo County, 34%)**

**\$190.7 Million to Businesses Outside Colorado (46%)**



# Acquisition Awards Status

## Upcoming Opportunities for Requests for Proposals (RFPs):

- The PCAPP Project is approximately 98% complete with procurements for the construction phase
- RFPs will be limited until the project is in the systemization/operations phase

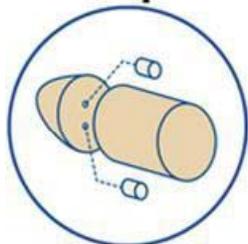
## Remaining RFPs for Construction:

- Misc. construction and architectural materials
- Misc. Piping Items
- Treaty Facility
- Lab Annex Facility



# Destruction Technology

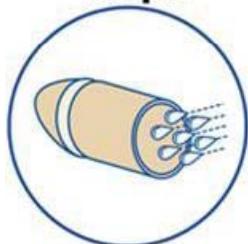
## Step 1



### REMOVAL OF ENERGETICS

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

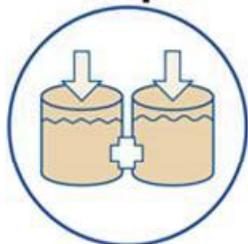
## Step 2



### REMOVAL OF MUSTARD AGENT

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

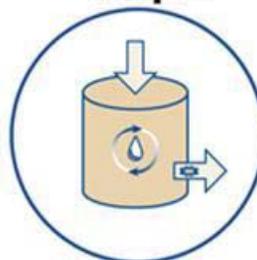
## Step 3



### NEUTRALIZATION OF MUSTARD AGENT

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

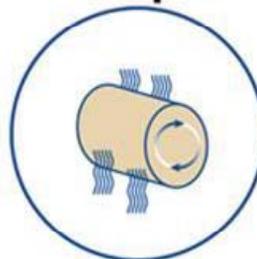
## Step 4



### 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

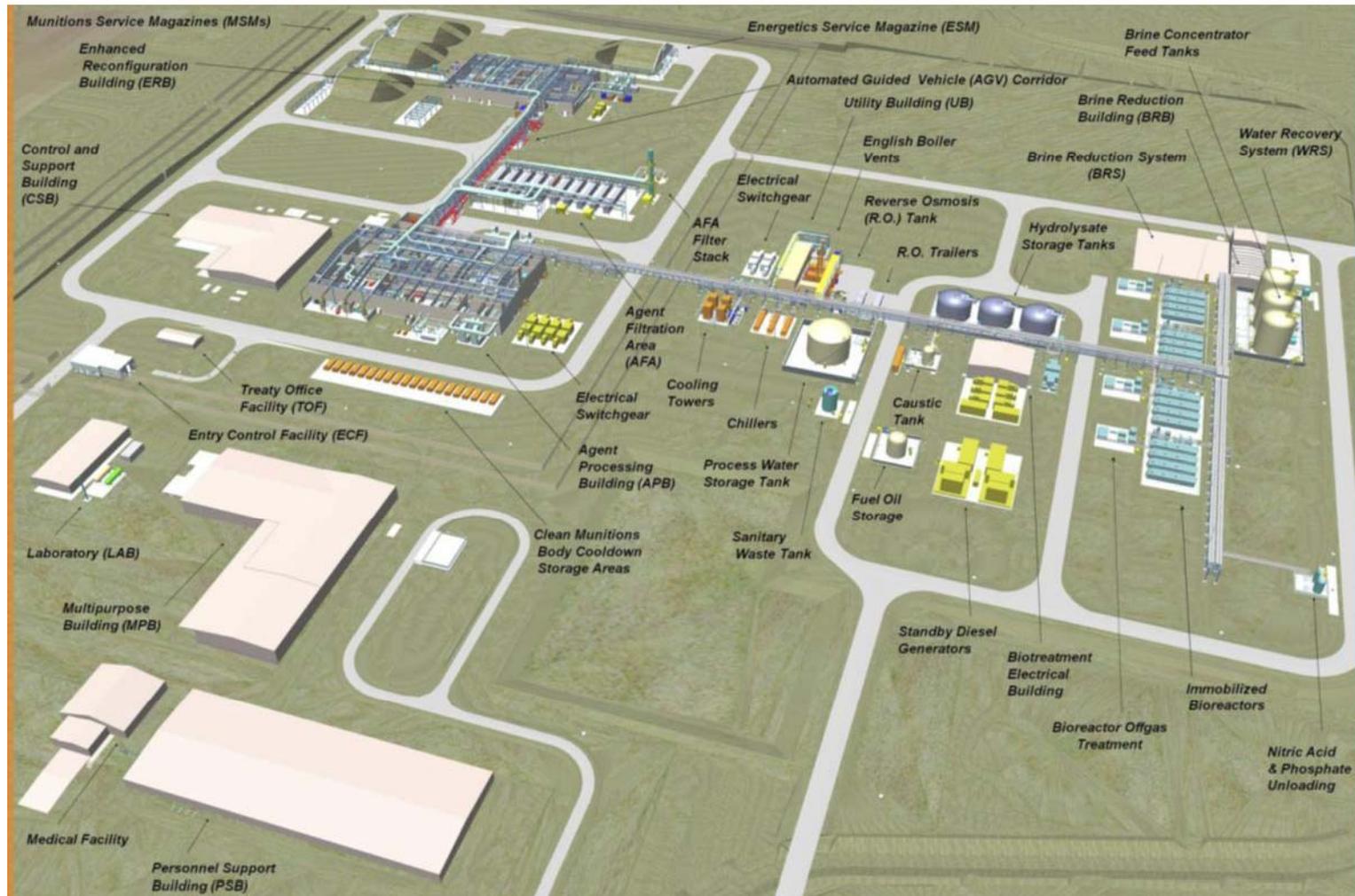


### DISPOSAL OF METAL PARTS

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 Agent Filtration Area
- 6 Munitions Service Magazine
- 7 Control and Support Building
- 8 Munitions Service Magazine corridor



# Construction Status – Complete

- Earth cover on Munitions Service Magazines
- Phase 1 of Chemical Limited Area fence installation & G-block fence/gates modification
- Agent Filtration Area filter houses/vestibules and duct work
- Entry Control Facility exterior concrete masonry unit walls and concrete roof
- Standby diesel generator assembly
- Energetic & Munitions Service Magazines Corridors siding/roofing



# Construction Status – In Progress



- **Enhanced Reconfiguration Building**– HVAC (interior and exterior), electrical tray/conduits & equipment set, process piping, mechanical equipment
- **Agent Processing Building**–Misc. platform erection, HVAC, cable tray, process piping, electrical and mechanical equipment, coatings & composite walls
- **Balance of Facilities**–cable tray, underground duct banks and supports, pipe rack piping, various mechanical equipment set, misc. concrete equipment foundations
- **Agent Filtration Area** – fire detection, instrumentation
- **Subcontractors**–HVAC, fire protection, architectural, coatings, insulation and membrane roofing



# Construction Status—In Progress (continued)

- **Control Support Building**—architectural finishes, electrical systems/equipment
- **Entry Control Facility**—architectural finishes
- **Medical & Lab Facilities**—set modular units, underground utilities, grading and roadways
- **Biotreatment Electrical Building**—electrical equipment/tray/conduit
- **Biotreatment Area**—receipt of equipment
- **Brine Reduction System**—rebar, embeds, formwork, receipt of equipment



# System Turnover

The construction group has turned over the following systems to the start-up group:

- Electrical power distribution system
- NETA testing for power calibration



# First-of-A-Kind Equipment



**Workers plan for the arrival of Lines 2 and 3 of the Projectile Mortar Disassembly system. The remaining two systems will be on site by the end of December.**



# Biotreatment Electrical Building



**Pipefitters install pumps and piping in the utility area.**

# Biotreatment Area



**Workers place rebar for the pump foundations near the brine concentrator feed tanks.**

# Agent Processing Building



The air tank (background) and the caustic storage tank (foreground) are located in the APB.

# Biotreatment Area



**In front of the sanitary and process water tanks is the pipe lay down area. The Agent Filtration Area filter stack is in the background.**



# Contact Information



## **Pueblo Chemical Stockpile Outreach Office**

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719-546-0400

### **Tom Schultz**

PCAPP

Public Affairs Specialist

### **Bob Kennemer**

Community Outreach  
Manager

### **Sandy Romero**

Bechtel Communications  
Manager

## **U.S. Army Pueblo Chemical Depot**

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719-549-4135

### **Chuck Sprague**

Public Affairs Officer

### **Ken Roque**

Deputy Public Affairs Officer



U.S. Army Element, Assembled  
Chemical Weapons Alternatives



Pueblo Chemical Agent  
Destruction Plant East