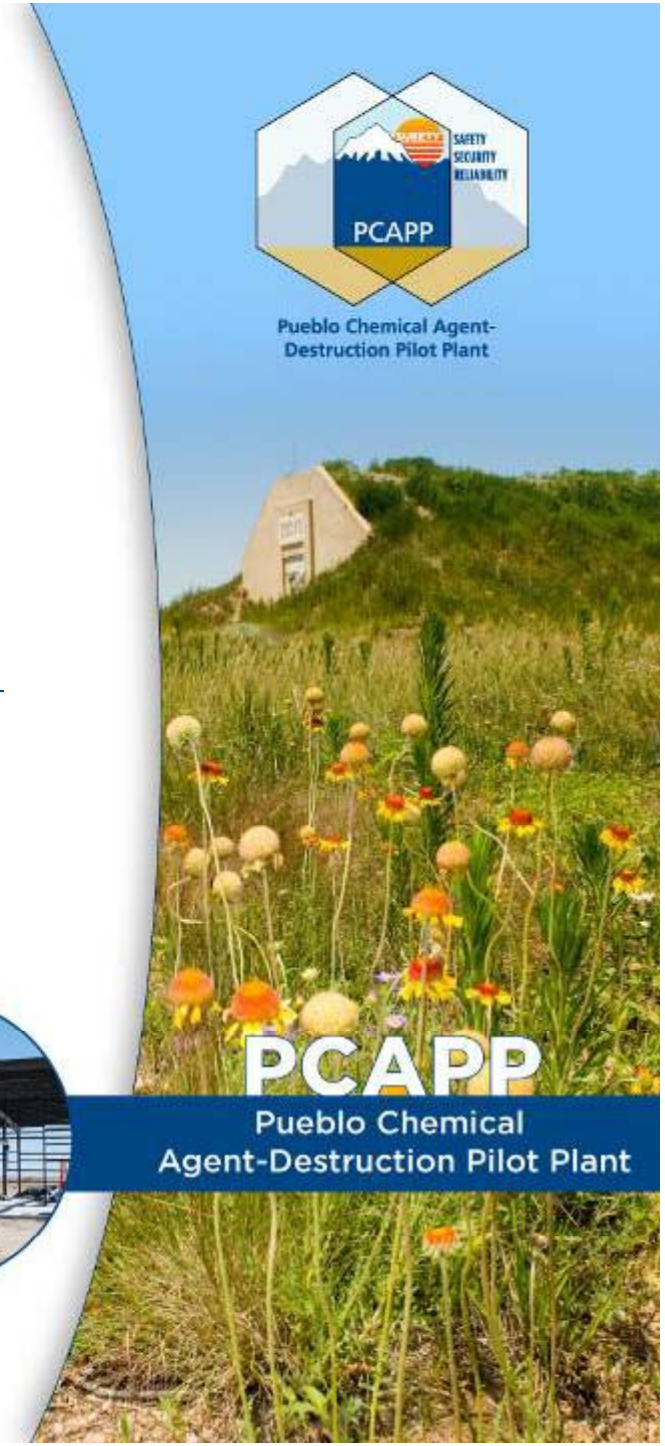
# Monthly Status Briefing

## *October 2010*

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

BECHTEL

- Design/engineering
- Procurement/subcontracting
- Construction

## Teaming Subcontractors

URS

- Systemization
- Pilot testing
- Operations
- Closure

PARSONS

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

Battelle

- Environmental permitting and compliance
- Laboratory management
- Pilot testing

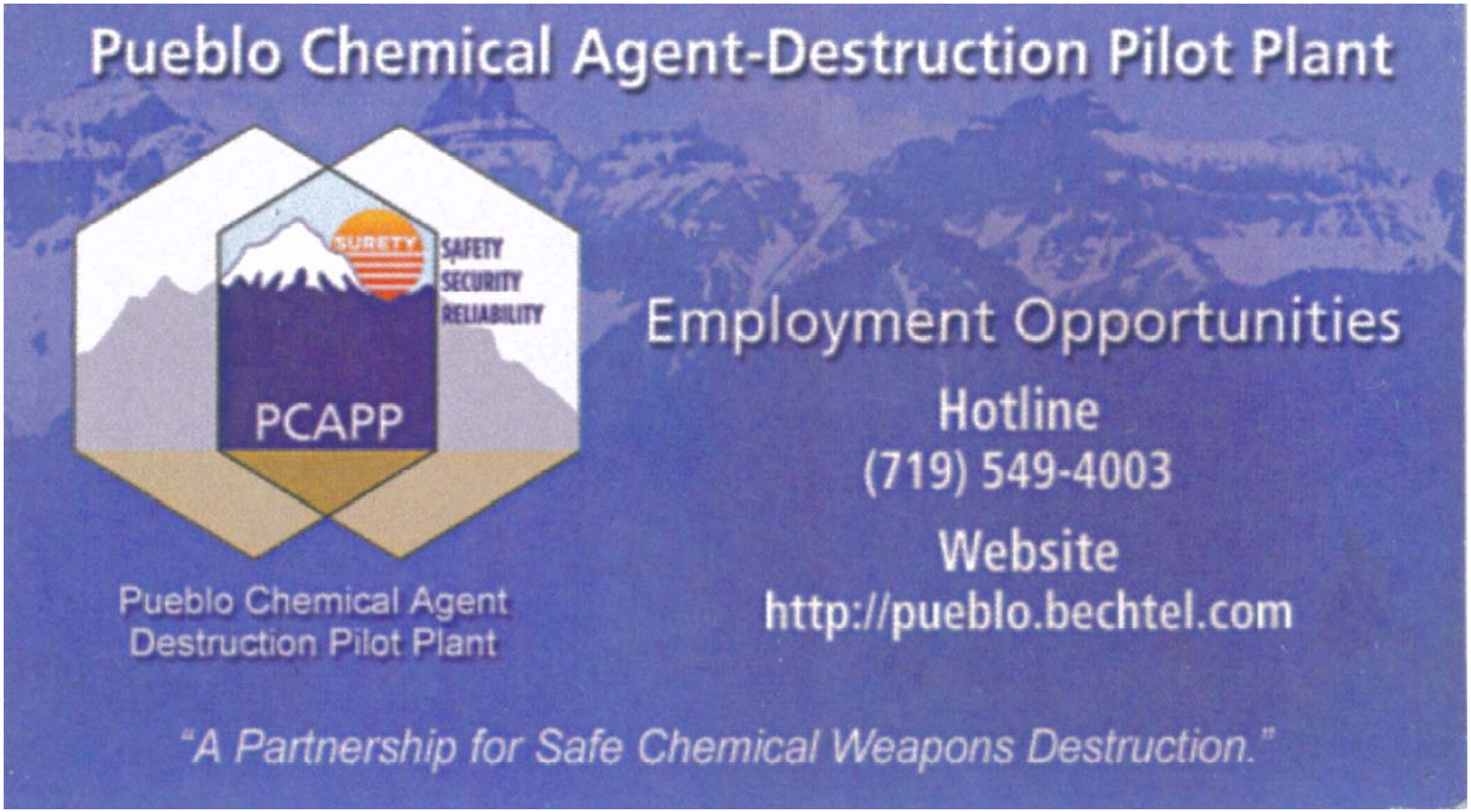
# Staffing



- Bechtel Pueblo Team non-manual: **397**
  - Pueblo: 392 (126 local hires)
  - Other locations: 5
- Construction Workers:
  - Bechtel direct-hire craft workers: 351
  - Subcontractor personnel: 44

# Employment Opportunities





# Safety



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

- 708 Safe Work Days
- 2,644,214 Safe Work Hours

# Subcontract Awards
## Inception to date, as of Sept. 30

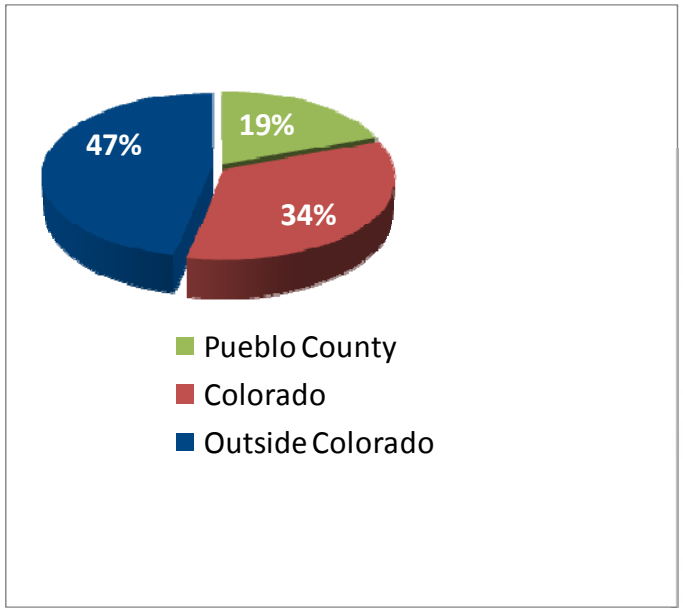
PCAPP MONTHLY UPDATE

**$405.4 Million**

$78.6 Million to Pueblo County Businesses (**19%**)

$137.3 Million to Colorado Businesses (Outside Pueblo County, **34%**)

$189.3 Million to Businesses Outside Colorado (**47%**)




# 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

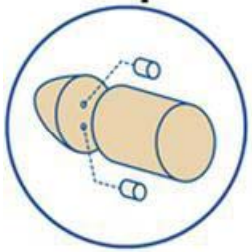
## Remaining RFPs for Construction:

- Misc. construction and architectural materials
- Treaty Trailer Facilities

# Destruction Technology



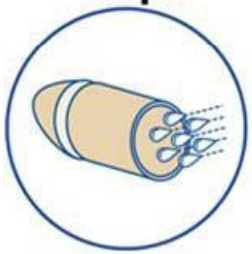
**Step 1**



## REMOVAL OF ENERGETICS

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

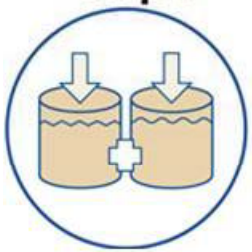
**Step 2**



## 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**

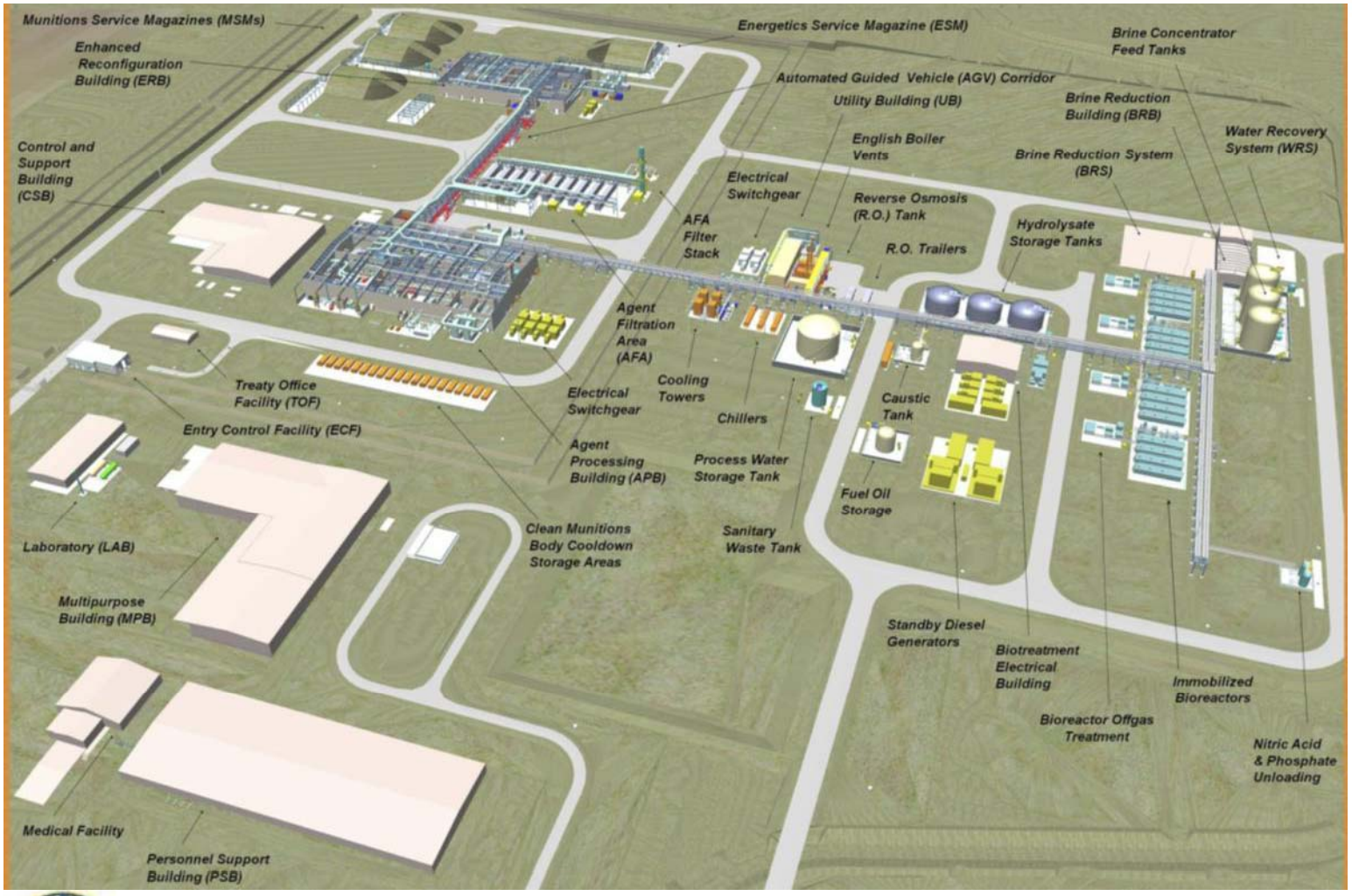
## DISPOSAL OF METAL PARTS

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 MONTHLY UPDATE



# PCAPP Site Overview

PCAPP MONTHLY UPDATE


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 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
- Immobilized Cell Bioreactor concrete foundation, pads and curbs
- Energetic & Munitions Service Magazines Corridors siding/roofing

# Construction Status – In Progress



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

# Construction Status—In Progress (continued)



- **Control Support Building–**HVAC, architectural finishes, electrical systems/equipment & fire protection
- **Entry Control Facility**—Bullet-resistant doors and windows
- **Medical & Lab Facilities**—Set modular units, underground utilities, grading and roadways
- **Biotreatment Electrical Building**— electrical equipment/tray/conduit
- **Biotreatment Area**—Setting of equipment (Immobilized Cell Bioreactors, tank skids, Brine Reduction System excavation/foundations
- **System turnover**—Electrical power distribution system, NETA testing for power calibration

# System Turnover



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

- Utility Building 480V Substation
- Agent Processing Building (APB) 480V substation
- Site Water—Underground Loop and Above Ground Feeds
- Natural Gas—Underground Header and Above Ground Feeds
- Fire Protection—Underground Loop and Hydrants
- APB Non-Essential motor control center power
- APB essential motor control center power

# First-of-A-Kind Equipment



**The first array of Cavity Access Machines (CAMs) has been installed in the Agent Processing Building. The CAMs are part of the Munitions Washout System.**

# First-of-A-Kind Equipment



**Workers install a Cavity Access Machine (CAM) inside the Agent Processing Building. CAMs will crack the munitions' burster wells, allowing agent to drain.**

# Biotreatment Area




**Equipment shown on this skid includes the moisture separator, control panels, two auto samplers and effluent tank and feed tank, which are all necessary to operate the Immobilized Cell Bioreactors.**

# Agent Filtration Area



**The pipe rack towers over the AFA filters. The pipe rack will support HVAC and electrical cable for the AFA.**

# Medical Building




**The Medical Building's pre-fabricated sections are assembled on-site. The Medical Building will provide 24/7 medical coverage for operations.**

# Brine Reduction System



**The evaporator for the Brine Reduction System arrived at the site on Oct. 6. The evaporator is 80-feet tall and rivals the 85-foot tall Agent Filtration Area filter stack.**

# Contact Information



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