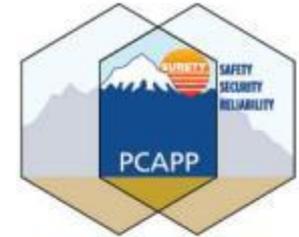


# Monthly Status Briefing

*January 2015*



Pueblo Chemical Agent-Destruction Pilot Plant



Program Executive Office  
Assembled Chemical Weapons Alternatives



# PCAPP

Pueblo Chemical  
Agent-Destruction Pilot Plant

[www.peoacwa.army.mil](http://www.peoacwa.army.mil)



A PARTNERSHIP FOR SAFE CHEMICAL WEAPONS DESTRUCTION

# Project Background



The Program Executive Officer, 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 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 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: **1,159**

- Pueblo County local hires: 335
- Colorado hires (outside Pueblo County): 92
- From other locations: 744

# Employment Opportunities



## Hotline

(719)549-4003

## Website

<http://pueblo.bechtel.com>

As of December  
31, 2014, PCAPP  
staff  
accomplished:

**979**

Safe Work Days\*

**5,902,880**

Safe Work Hours



\* Last Lost Time occurred on April 26, 2012

## Step 1



### Removal of Energetics

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

## 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

Microbes treat the hydrolysate, breaking it down into brine. The brine is separated with water being recycled back to the plant and salt cakes shipped for disposal at a permitted facility.

## Step 5



### Thermal Treatment and 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.**

# Explosive Destruction System

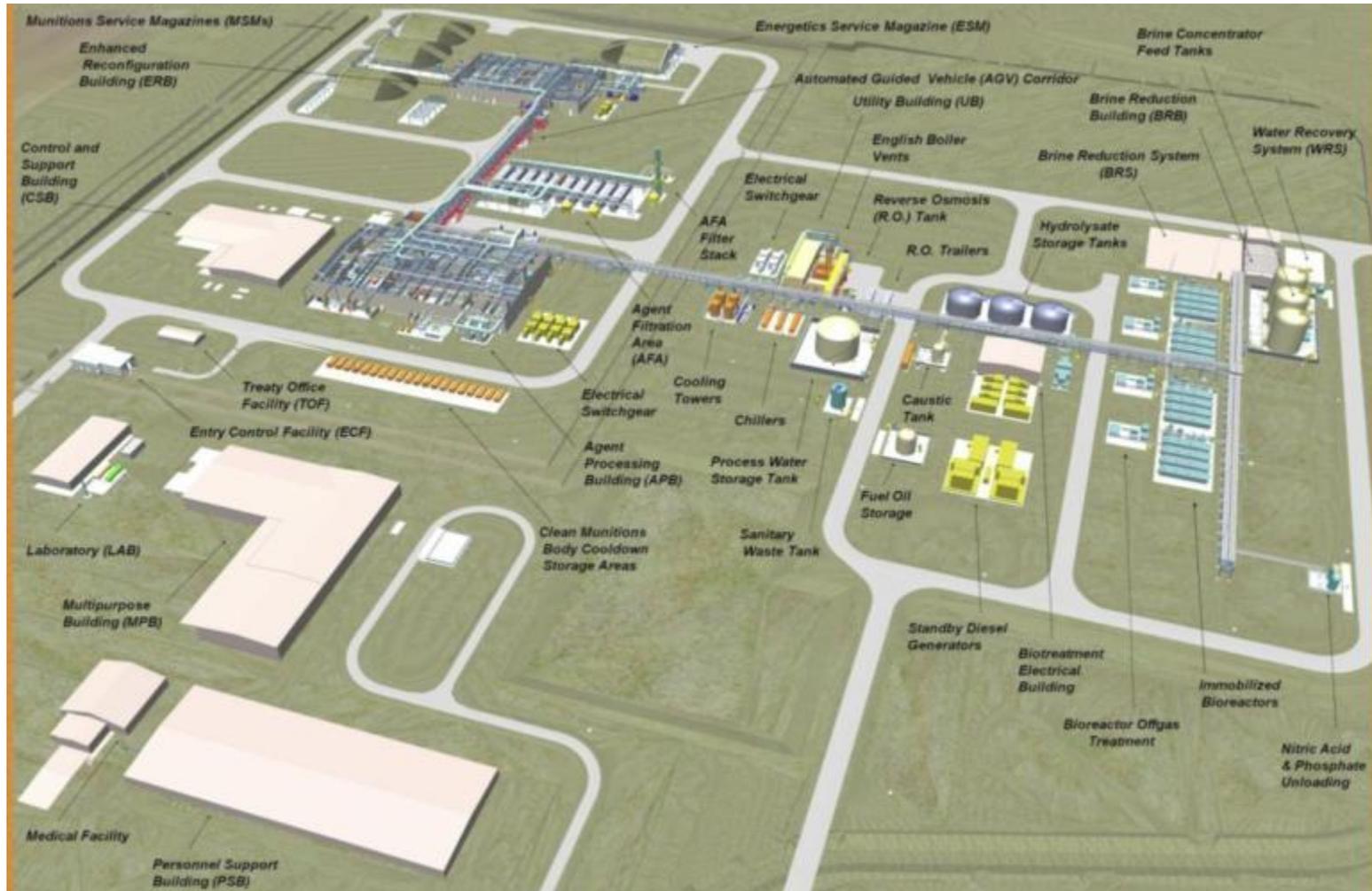


- The Army's Explosive Destruction System (EDS) will augment the Pueblo pilot plant's automated destruction technology
- EDS will be used to destroy problematic munitions that are unsuited for automated processing

- EDS uses explosive “cutting” charges to access the chemical agent inside a munition; neutralization chemicals are then added to destroy the chemical agent



# Pueblo Chemical Agent-Destruction Pilot Plant—Site Plan



# PCAPP Site Overview



Northwestern Corner - Observation Point

- |          |  |          |  |
|----------|--|----------|--|
| <b>1</b> | <b>Enhanced Reconfiguration Building</b> | <b>5</b> | <b>Agent Filtration Area</b>               |
| <b>2</b> | <b>Automated Guided Vehicle Corridor</b> | <b>6</b> | <b>Munitions Service Magazine</b>          |
| <b>3</b> | <b>Agent Processing Building</b>         | <b>7</b> | <b>Control and Support Building</b>        |
| <b>4</b> | <b>Biotreatment Area</b>                 | <b>8</b> | <b>Munitions Service Magazine Corridor</b> |

# Turnover to Operations

**As the project transitions from systemization to operations, the following systems have been turned over:**

## **Systems**

Toxic Storage and Spent Decon  
Bulk Chemical Storage and Distribution  
Security Essential Power Supply  
Laboratory Ventilation System  
Site Water System  
Chilled Water System  
Reverse Osmosis System  
Process Water System  
Instrument Air and Plant Air  
Natural Gas  
Fuel Oil System  
Sanitary Waste  
Enhanced Reconfiguration Building/Agent  
Processing Building Material Handling Systems

Munitions Unpacking and Projectile Disassembly  
Lighting System  
Steam and Condensate System  
Breathing Air System  
Communications System



To learn more about Systemization, watch the video at  
[http://www.peoacwa.army.mil/info/video/systemization\\_yt.html](http://www.peoacwa.army.mil/info/video/systemization_yt.html)

# Turnover to Operations

**As the project transitions from systemization to operations, the following facilities have been turned over:**

## **Facilities**

Biotreatment Electrical Building  
Brine Reduction System Facility  
Analytical Laboratory  
Medical Facility  
Multipurpose Building  
Personnel Support Facility  
Utility Building



To learn more about Systemization, watch the video at  
[http://www.peoacwa.army.mil/info/video/systemization\\_yt.html](http://www.peoacwa.army.mil/info/video/systemization_yt.html)

# Agent Processing Building



**Small blowers, located on the second level of the Agent Processing Building, will pull air from the Munitions Washout System surge drums and exhaust to the Off-Gas Treatment System.**

# Enhanced Reconfiguration Building



**Workers practice unpacking and handling inert munitions at the Vapor Containment Room feed conveyor for reconfiguration. The munitions, 4.2 mortars and boxed 105 mm projectiles are unpacked and sent into the reconfiguration process.**



**Monitoring Technician Aaron Williams watches as fellow Monitoring Technician Hugo Condo performs a calibration verification of the Miniature Continuous Air Monitoring System (MINICAMS). This involves introducing a diluted concentration of mustard agent standards to ensure the MINICAMS will accurately detect and alarm.**

# Heaton Middle School Tour



**Approximately 150 Heaton Middle School 6<sup>th</sup> grade students toured the Training Facility on Jan. 16. Demonstrations of the operating equipment and presentations on two types of Demilitarization Protective Ensembles were provided to the students.**

# Contact Information



## **Pueblo Chemical Stockpile Outreach Office**

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### **Ron Eccher**

Public Outreach Manager

### **Tom Schultz**

PCAPP

Public Affairs Specialist

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Bechtel Pueblo Team  
Communications Manager

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

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719-549-4135

### **Lori Waters**

Public Affairs Officer



Program Executive Office  
Assembled Chemical Weapons Alternatives

