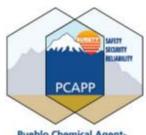
# Monthly Status Briefing

**April 2015** 

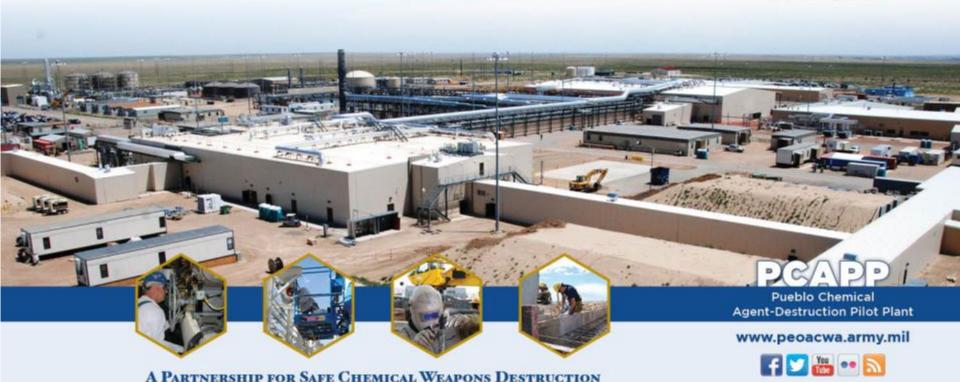


Pueblo Chemical Agent-Destruction Pilot Plant









# **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., AECOM, Parsons, and Battelle Memorial Institute. The BPT functions as the systems contractor selected to design, build, systemize, pilot test, operate, and close the PCAPP.







# **Staffing**









# **Employment Opportunities**









# Safety





- Lost-workday case rate and total recordable injury rate (TRIR) is 0.07
- The current TRIR for the YTD is well below the general industry average of 3.5 and the Waste
  Management Industry rate of 4.7
- \*A Lost Time Recordable Injury occurred on Jan. 22, 2015 (21 months without a lost time injury or illness and 5.9 million hours worked).







# **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 offsite.

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 2



Removal of Mustard Agent

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

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.

Step 3



#### Neutralization of Mustard Agent

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

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





# **Explosive Destruction System**



As of 15 April 2015, EDS has destroyed 10 DOT bottles and 21 105mm projectiles



- The Army's Explosive Destruction System (EDS) is augmenting the Pueblo pilot plant's automated destruction technology
- EDS is being 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



March 18, 2015 – The first mustard agent from the Pueblo stockpile to be destroyed is loaded into the EDS.





# Pueblo Chemical Agent-Destruction Pilot Plant—Site Plan







#### **PCAPP Site Overview**





- 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



## **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/CCTV

Residue Handling

Munitions Washout System



To learn more about Systemization, watch the video at 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** 

Control and Support Building

Entry Control Facility\*

Munitions & Energetics Service Magazines\*





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

<sup>\*</sup>Newly added

# **Agent Drill in APB**





Ordnance technicians working in the Agent Processing Building practice what to do if someone gets hurt. During the drill, the techs were also monitored for agent contamination.

# **Fireproofing Continues**





Subcontractors have been very busy fireproofing steel members in the Agent Processing Building. The fireproofing will provide additional protection to the area in the event of an incident.



## **MSM Turnover to Operations**





Startup Specialist Josh Phillips, Electrical Technicians Damon Trumps and Justin Powers and Work Control Coordinator Gerald Ure turn over the Munitions Service Magazine and Energetics Service Magazine to Ordnance Technicians Lance Morrison and David Sinclair.



#### Walk A Mile in Her Shoes





PCAPP employees participated in Pueblo Rape Crisis Services' (PRCS) 2<sup>nd</sup> Annual Walk A Mile in Her Shoes event. With a combined corporate contribution and employee donations, PCAPP raised more than \$10,000.



#### **Contact Information**



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