Monthly Status Briefing

October 2014

Pueblo Chemical Agent-Destruction Pilot Plant

Program Executive Office Assembled Chemical Weapons Alternatives

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.

Staffing

Bechtel Pueblo Team:
1,075

- Pueblo County local hires: 306
- Colorado hires (outside Pueblo County): 79
- From other locations: 690

Employment Opportunities

Hotline

(719)549-4003

Website

http://pueblo.bechtel.com

Safety

PCAPP MONTHLY STATUS BRIEFING

As of September 30, 2014, PCAPP staff accomplished:

887
Safe Work Days*

5,175,056
Safe Work Hours

*Last Lost Time occurred on April 26, 2012

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 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.

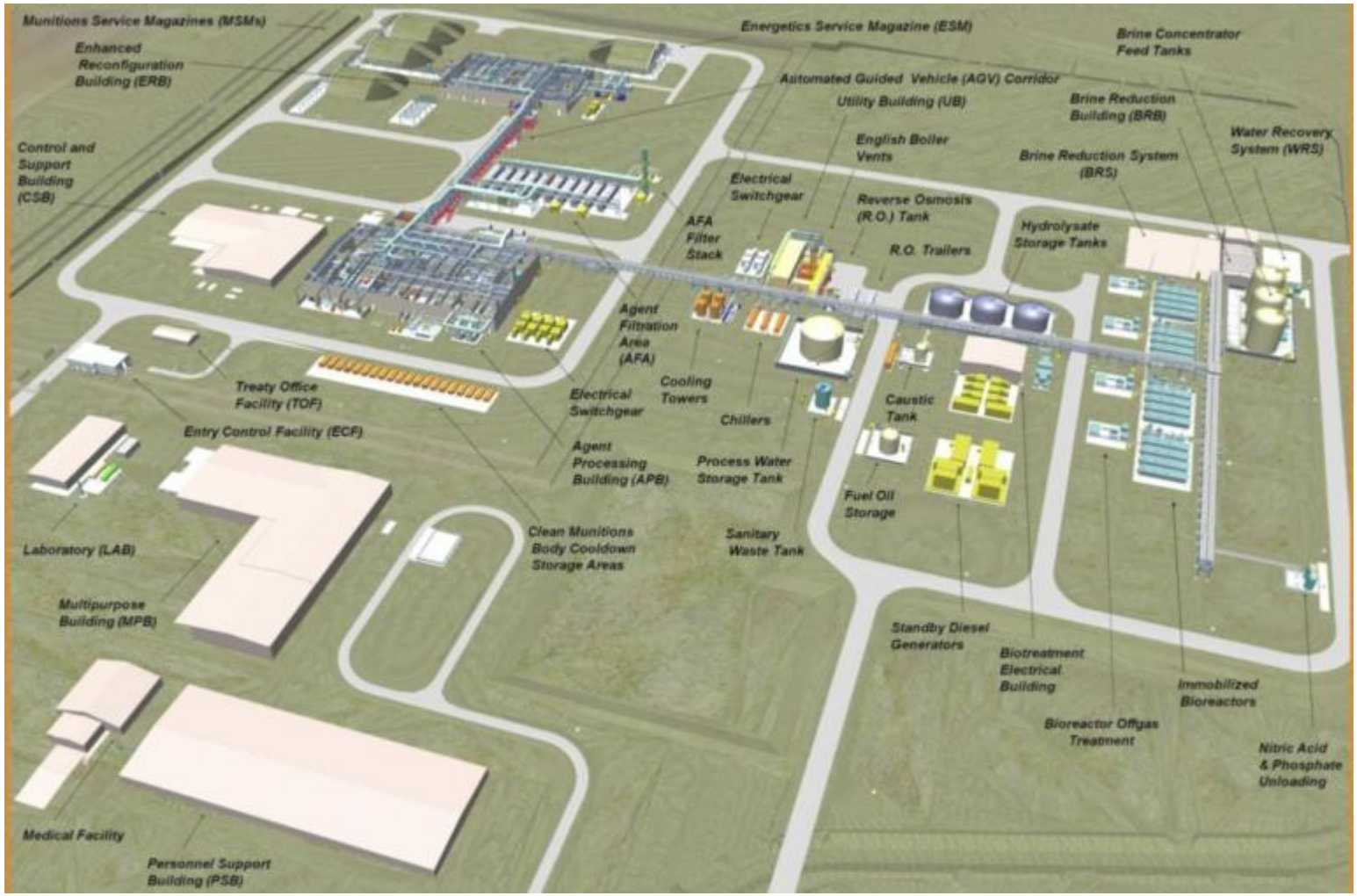
Neutralization followed by biotreatment will be used to destroy the Colorado chemical weapons stockpile.

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

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

System Turnovers

By Oct. 1, the start-up group turned over 20 systems and facilities to operations, a significant accomplishment in getting the plant ready for agent operations.

Turnover to Operations

As the project transitions from systemization to operations, the following systems and facilities 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

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

Testing with ATE

Assembled Chemical Weapons Alternatives test equipment, or ATE, is being used to system test the Munitions Washout System, pictured above, and the Munitions Treatment Unit in the Agent Processing Building.

Modified Ammunition Vehicle (MAV)

A forklift operator awaits a MAV, complete with an Overpacked Pallet (OPP) of ACWA Test Equipment (ATE), to back up into position to be offloaded. Munitions transporters are practicing receiving ATEs with the new OPPs .

Battelle Science Initiative

A $200,000 grant was awarded to Centennial High School as part of Battelle Memorial Institute's AirAlert initiative to inspire future scientists. The presentation was made at the annual Bell Game before a crowd of nearly 15,000 people.

Contact Information

Pueblo Chemical Stockpile Outreach Office
104 West B Street
719-546-0400

Ron Eccher
Public Outreach Manager

Tom Schultz
PCAPP
Public Affairs Specialist

Sandy Romero
Bechtel Pueblo Team
Communications Manager

U.S. Army Pueblo Chemical Depot
45825 Highway 96 East
719-549-4135

Lori Waters
Public Affairs Officer

ACWA Program Executive Office Assembled Chemical Weapons Alternatives

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PUEBLO DEPOT