Monthly Status Briefing

September 2013

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

PCAPP MONTHLY STATUS BRIEFING

- Bechtel Pueblo Team non-manual: **808**
  - Pueblo: 806
    - Pueblo County local hires: 191
    - Colorado hires (outside Pueblo County): 49
  - Other locations: 2
- Construction Workers: **194**
  - Bechtel direct-hire craft workers: 118
  - Subcontractor personnel: 76

Employment Opportunities

PCAPP MONTHLY STATUS BRIEFING

Hotline

(719)549-4003

Website

http://pueblo.bechtel.com

As of August 31, 2013,
PCAPP Project staff accomplished:

- 492 Safe Work Days*
- 2,562,303 Safe Work Hours

*Last Lost Time occurred on April 26, 2012

Destruction Technology

PCAPP MONTHLY STATUS BRIEFING

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

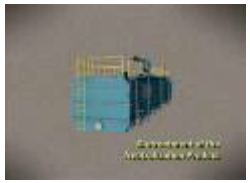
The inside of the weapon is remotely accessed and mustard agent is washed out with high-pressure water.

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

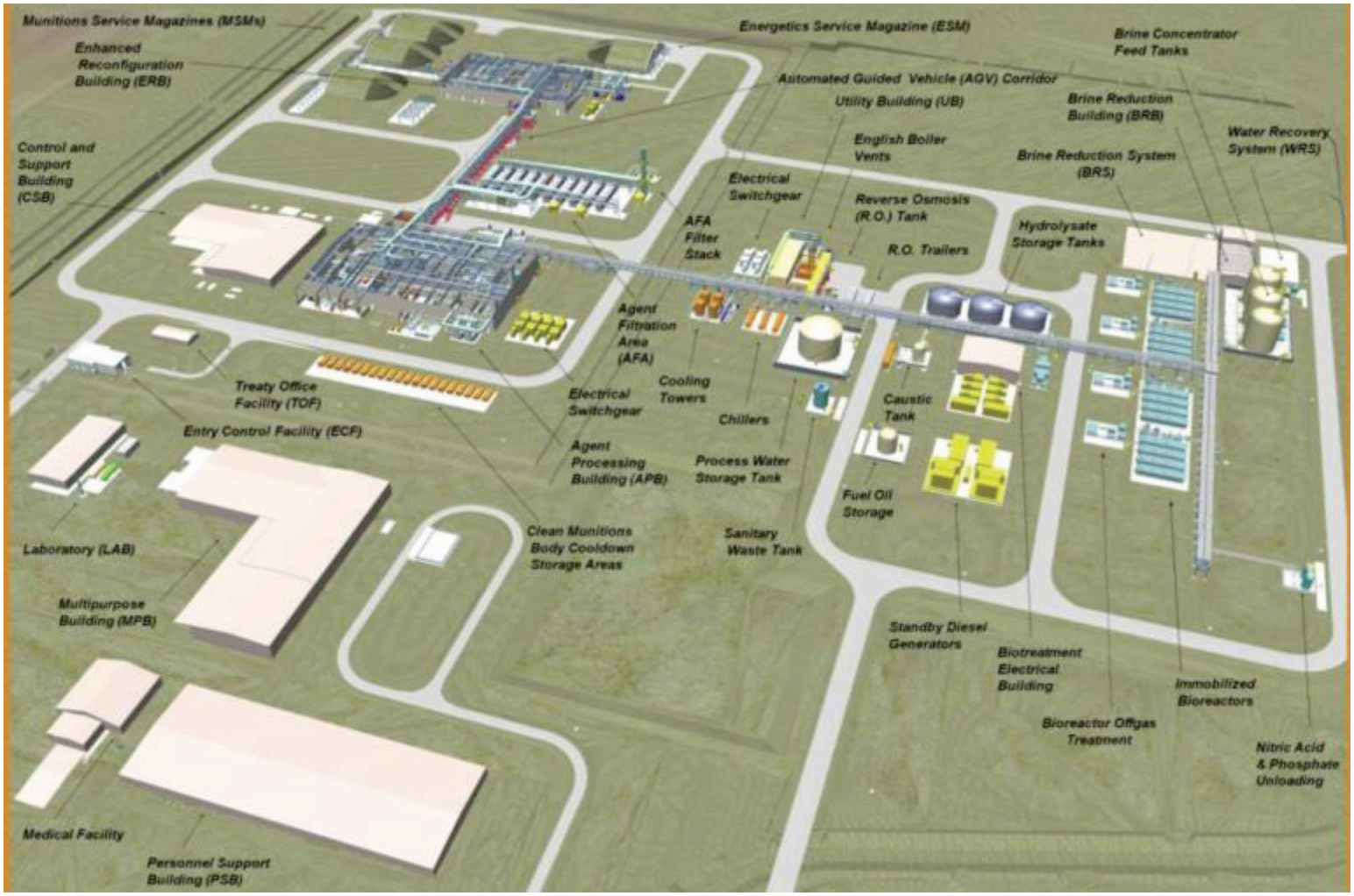
Thermal Treatment and Disposal of Metal Parts

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.

Pueblo Chemical Agent-Destruction Pilot Plant—Site Plan

PCAPP MONTHLY STATUS BRIEFING



PCAPP Site Overview

PCAPP MONTHLY STATUS BRIEFING

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

Systemization

PCAPP MONTHLY STATUS BRIEFING

As the project transitions from construction to systemization, the following systems have been turned over to the start-up group to begin the systemization process:

- Agent Collection and Neutralization System—Hydrolysate Collection and Storage—Yard
- Breathing Air—A & B Compressor/Purifier Packages, Receiver and Chiller, Bottle Filling Station, Supply and Change Stations
- Enhanced Reconfiguration Building (ERB) HVAC: Supply Air Handling Units/Control Room and Support Areas Ventilation System; ERB Cascade Ventilation System; Electrical Room Ventilation System
- Steam Supply—Fuel Oil Piping, Natural Gas Piping, Amine Feed Skid, Boilers A & B and Outside Rack Steam; Agent Processing Building (APB)/ Biotreatment Area (BTA)/Brine Reduction System (BRS) Distribution
- Bulk Chemical Storage and Distribution—DAP, UREA and 25% caustic
- Projectile Handling and Projectile Disassembly—Projectile Mortar Disassembly systems and Related Equipment—Lines 1, 2, and 3; Munitions/Parts Monitoring
- Chilled Water—Chillers, Distribution to various HVAC units, recirculation units, autoclave and Off-Gas Treatment scrubber
- Immobilized Cell Bioreactor (ICB) Feed, Biotreatment, ICB Blower and Off Gas Treatment —Modules 1/2/3/4, Biotreatment Electrical Building
- Process Cooling Water—pumps, tanks, chemical feed skids, cooling towers, BRS Distribution
- Brine Reduction System (BRS)—Brine Concentrator Feed (BCF) Tanks "A", "B", and "C" and BCF Tanks Off-Gas Treatment; Brine Reduction Belt Feed System, BRS Filter Press Building, all BRS Electrical Systems

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

Systemization (cont.)

PCAPP MONTHLY STATUS BRIEFING

- APB—Munitions Washout System (MWS) Instrument Air Distribution; Process Water Distribution; Hydraulic Power Line 1 & 2; Hot Process Water Tank and Heating Coil; MWS High Pressure Water Supply and Distribution; MWS Drain, Wash and Collection Line 1 & 2; Off-Gas Treatment System; MWS Agent Wash Water Transfer; APB Fire Protection Systems
- APB Decon Storage (SDS) Holding Tanks and Feed Pumps; SDS "A" Sumps; SDS "B" pumps; SDS "C" Pumps
- Munitions Treatment Units #1 and #2; Munition Body Storage Building—Gravity Conveyors
- APB HVAC: Supply Air Handling Units, Battery Room Ventilation System; Cascade Ventilation System, Operator Work Station Ventilation System, Recirculation Units, Unit Heaters and Ventilators; Electrical Room Ventilation System; Entry Support Area Ventilation System; Electrical Room Ventilation System; Entry Support Area Ventilation System
- Agent Monitoring: Agent Filtration Area; Laboratory, APB, Automated Guided Vehicle (AGV) corridor, ERB
- Facilities: Control Support Building; Medical Building; Laboratory; Utility Building, APB, ERB, AGV corridor, Entry Control Facility, Brine Reduction Filter Building (BRB), Biotreatment Electrical Building
- APB Agent Collection and Neutralization System—Agent Collection; Agent Neutralization; Hydrolysate Collection and Sampling Systems
- Site Security Diesel Generator
- Secondary Waste Treatment: Secondary Decontamination Unit System & Autoclave
- Residue Handling System
- Site Security Essential Power
- Site Grounding System
- Closed Circuit TV (CCTV): APB, ERB, Yard, BTA
- AGVs with maintenance charge

Training Facility

PCAPP MONTHLY STATUS BRIEFING

Installation of First-Of-A-Kind equipment, like the Munitions Washout System, shown here, has been completed at the Training Facility. Workers will be trained to operate and maintain the equipment on these machines.

Fire/Police Chiefs Tour

PCAPP MONTHLY STATUS BRIEFING

From left, Communications Manager Tim Nawrocki, Pueblo County Sheriff's office; Sergeant Eric Gonzales, Pueblo Police; Bureau Chief Mark Mears, Pueblo County Sheriff's Office; Pueblo County Commissioner Sal Pace; and Pueblo West Fire Chief Brian Caserta, listen to Plant Support Manager Dan Hall explain how munitions are monitored once their explosives are removed.

Job Workstations

PCAPP MONTHLY STATUS BRIEFING

Two workstations have been installed at the Pueblo Chemical Stockpile Outreach Office to allow job seekers easy access for applying online for PCAPP jobs. More than 300 positions will be added between now and the end of 2014.

Operation Paintbrush

PCAPP MONTHLY STATUS BRIEFING

More than 70 PCAPP employees painted five houses on Sept. 7, as part of Operation Paintbrush, an annual community-wide event.

Contact Information

PCAPP MONTHLY STATUS BRIEFING

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