PUEBLO CHEMICAL AGENT-DESTRUCTION PILOT PLANT

U.S. Army Element, Assembled Chemical Weapons Alternatives

PROJECT PHASES

Construction

PCAPP construction will be completed in three stages:

Stage 1: Construction of access road, fencing and guard station

Stage 2: Construction of utilities, all ancillary buildings and site preparation work

Stage 3: Construction of buildings which will house the equipment and systems that will destroy the chemical weapons

Systemization

All machinery, equipment and processes are operated and tested with water or simulants to ensure they function together as an integrated system.

Pilot Testing

Pilot testing begins with the gradual introduction of actual agent-filled munitions into the system.

Operations

Once pilot testing is demonstrated and is proven to be in compliance with all safety requirements and environmental permits, the remaining chemical weapons are destroyed. Using a technology called neutralization biotreatment, the weapons are:

- Disassembled
- The mustard agent is washed out using high pressure water
- The mustard agent is neutralized with hot water and caustics creating a byproduct called hydrolysate
- The hydrolysate is fed to microbes, which turn the mixture into salts called biosludge
- The biosludge is disposed of at an off-site permitted facility
- The munition metal parts are heat treated and can then be recycled

Closure

Operations are complete and the facility is closed. As required by the Chemical Weapons Convention treaty, equipment is dismantled, decontaminated and removed.

SURETY
SAFETY
SECURITY
RELIABILITY
PCAPP

Pueblo Chemical Agent-Destruction Pilot Plant

A Partnership for Safe Chemical Weapons Destruction