Munitions Treatment Unit

The Pueblo Chemical Agent-Destruction Pilot Plant, or PCAPP, is safely and efficiently destroying a stockpile of chemical weapons currently in storage at the U.S. Army Pueblo Chemical Depot.

After munitions have been drained and rinsed to remove the mustard agent for neutralization, the Munitions Treatment Unit (MTU) completes the decontamination of munition bodies. To do so, it elevates the temperature of the munitions to at least 1000 degrees Fahrenheit (537.8°C) for at least 15 minutes.

Two MTUs are used at the PCAPP facility and are both located in the Agent Processing Building (APB). Each MTU is approximately 90’ (27.4 M) long and 10’ (3 M) wide. The MTUs are designed to process 155mm projectiles (40/hour), 105mm projectiles (60/hour), and 4.2-inch mortar rounds (60/hour).

Drained munitions are fed to the MTUs by robots. To ensure that full munitions are not placed into the MTU, each one is weighed. Munitions are then carried on a conveyor belt, which travels slowly, through the MTU. Individual munitions take more than an hour to pass through the MTU.

The heated portion of the MTU is divided into six zones. The temperature of the munitions increases at a controlled rate and then maintained to complete the decontamination process. A cooling section follows the heating zones to reduce the temperature of munitions and the belt conveyor.

Decontaminated munitions exit the cooling section of the MTU. Gases from the MTU are discharged to the PCAPP off-gas treatment system. Decontaminated munitions are deposited into containers to await off-site shipping.

It is recognized that a limited number of munitions will not be able to be easily processed through the main destruction plant. These problematic munitions include those that have leaked in the past and are overpacked, as well as "rejects" whose condition does not allow for automated processing. These munitions will be safely processed in PCAPP's Explosive Destruction System.