Blue Grass Chemical Agent-Destruction Pilot Plant

Blue Grass-Specific Equipment: Metal Parts Treater

FOR MORE INFORMATION CONTACT:

Blue Grass Chemical Stockpile Outreach Office
1000 Commercial Drive, Suite 2
Richmond, KY 40475
(859) 626-8944
bgoutreach@iem.com

Blue Grass Chemical Agent-Destruction Pilot Plant Public Affairs
(859) 624-6326

Blue Grass Army Depot Public Affairs Office
(859) 779-6941

Blue Grass Chemical Activity Public Affairs Office
(859) 779-6897

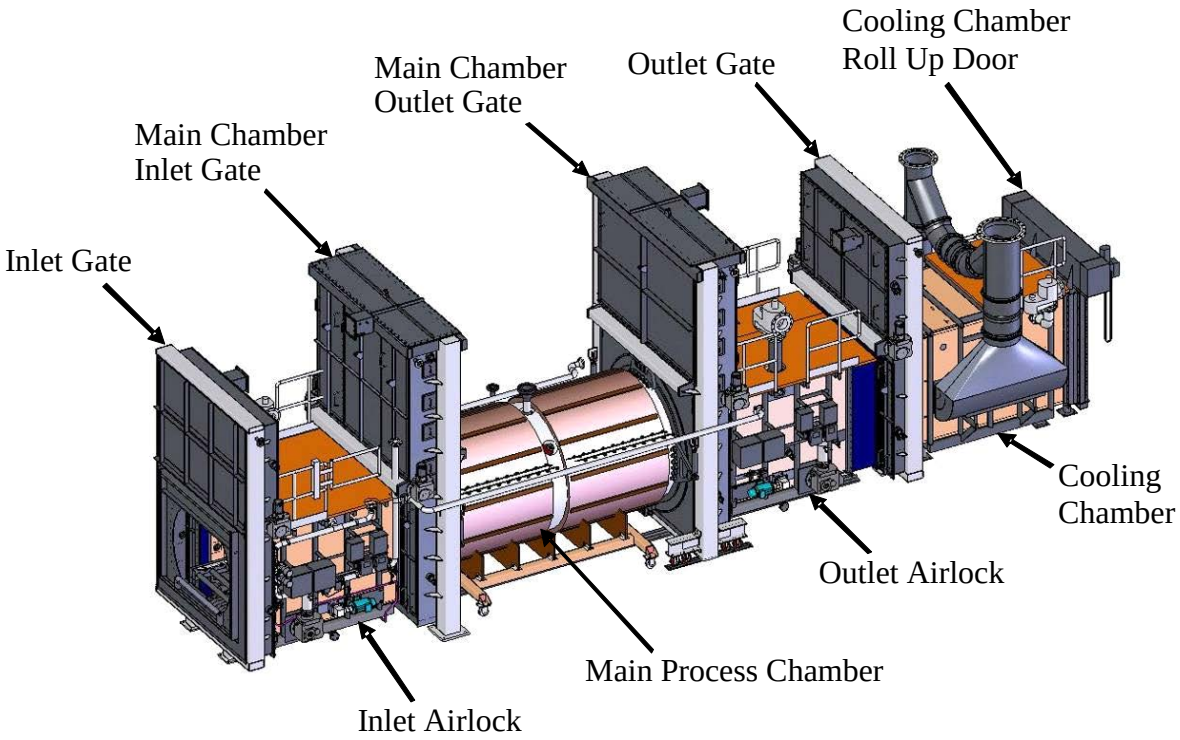
The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) is being built to safely destroy a chemical weapons stockpile that comprises more than 500 tons of chemical agent in weapons stored at the Blue Grass Army Depot. The plant will remove both explosive components (energetics) and chemical agents from the munitions and neutralize them in separate processes. These processes involve equipment specifically designed and extensively engineered and tested for this use.

One of the specialized pieces of equipment developed for BGCAPP is the Metal Parts Treater (MPT), fabricated and tested in Pasco, Wash. The Pasco facility is operated by Parsons, one of the joint venture companies of Bechtel Parsons Blue Grass, the contractor responsible for the design, construction, systemization, operations and closure of the BGCAPP project.

The MPT will be used to thermally decontaminate metal projectile bodies after the chemical agent has been removed to ensure that no residual agent remains. This will involve heating the projectile bodies to 1,000 degrees Fahrenheit for 15 minutes.

The device will also be used to decontaminate secondary wastes such as wood, rags, protective clothing, plastics and other materials that may have been exposed to agent during plant operations.

Projectile bodies, with the chemical agent removed, will be placed on trays and transferred through an airlock into the MPT on conveyors. The same conveyor system will be used for secondary wastes. In the MPT main chamber, the tray will be heated by electrical induction. This treatment will be performed in an oxygen-limited atmosphere to prevent combustion.



This computer graphic of the Metal Parts Treater highlights the main components of this process equipment system, which will be designed, built and tested for the Blue Grass Chemical Agent-Destruction Pilot Plant project.

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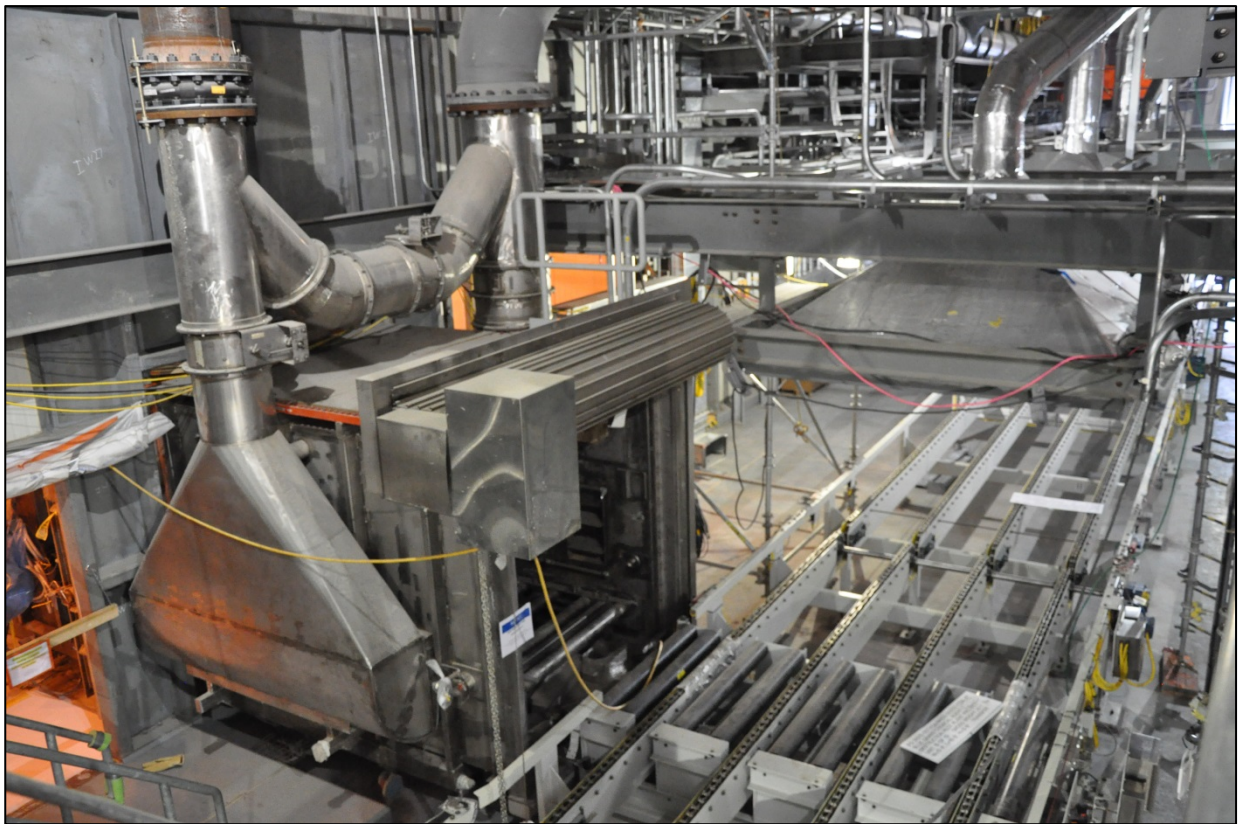
Once the process in the MPT main chamber is complete, the tray will be transferred to the outlet airlock and then to a cooling chamber. After the projectile bodies have cooled, they will be removed from the plant and recycled. The remnants of secondary wastes will be packaged in drums and sent to a permitted landfill for disposal.



The Metal Parts Treater (MPT), seen here with the MPT cooling racks, is under construction at the Blue Grass Chemical Agent-Destruction Pilot Plant.