



Blue Grass Chemical Agent-Destruction Pilot Plant

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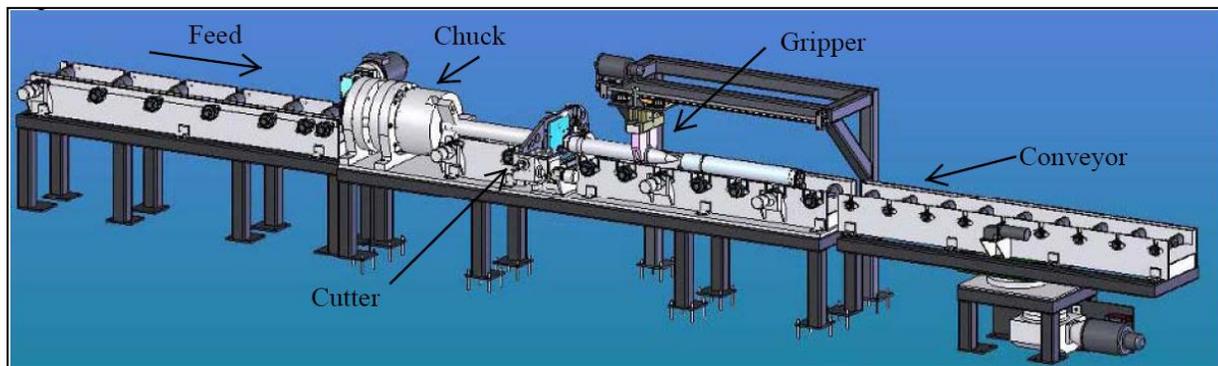
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Blue Grass-Specific Equipment: Rocket Cutter Machine and Rocket Shear Machine

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 nerve agent in rockets and projectiles 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.

Two pieces of remotely operated equipment—the Rocket Cutter Machine (RCM) and the Rocket Shear Machine (RSM)—will remove energetics and agent from the rockets. Both units completed fabrication and testing in Pasco, Wash. and have been delivered to Kentucky. 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.

Part of the Blue Grass stockpile consists of M55 rockets containing both GB and VX nerve agent. The M55 rockets are approximately six feet long and six inches in diameter, and are packaged inside a fiberglass shipping and firing tube. The rocket consists of two sections, a motor that propels the rocket and a warhead that contains chemical agent.



This computer graphic of the Rocket Cutter Machine illustrates the main components of the system and shows a rocket being processed through the system.

In the RCM, the rocket will be grasped by a device similar to the chuck in a power drill, and a machine much like a plumber’s pipe cutter will make two cuts. The first cut will go through the shipping and firing tube, and the second will go through the threads connecting the motor and the warhead. This will separate the rocket into two components – the warhead and the motor (still inside the shipping and firing tube). The motor and shipping and firing tube will then be transferred for further processing, while the warhead will go to the RSM.

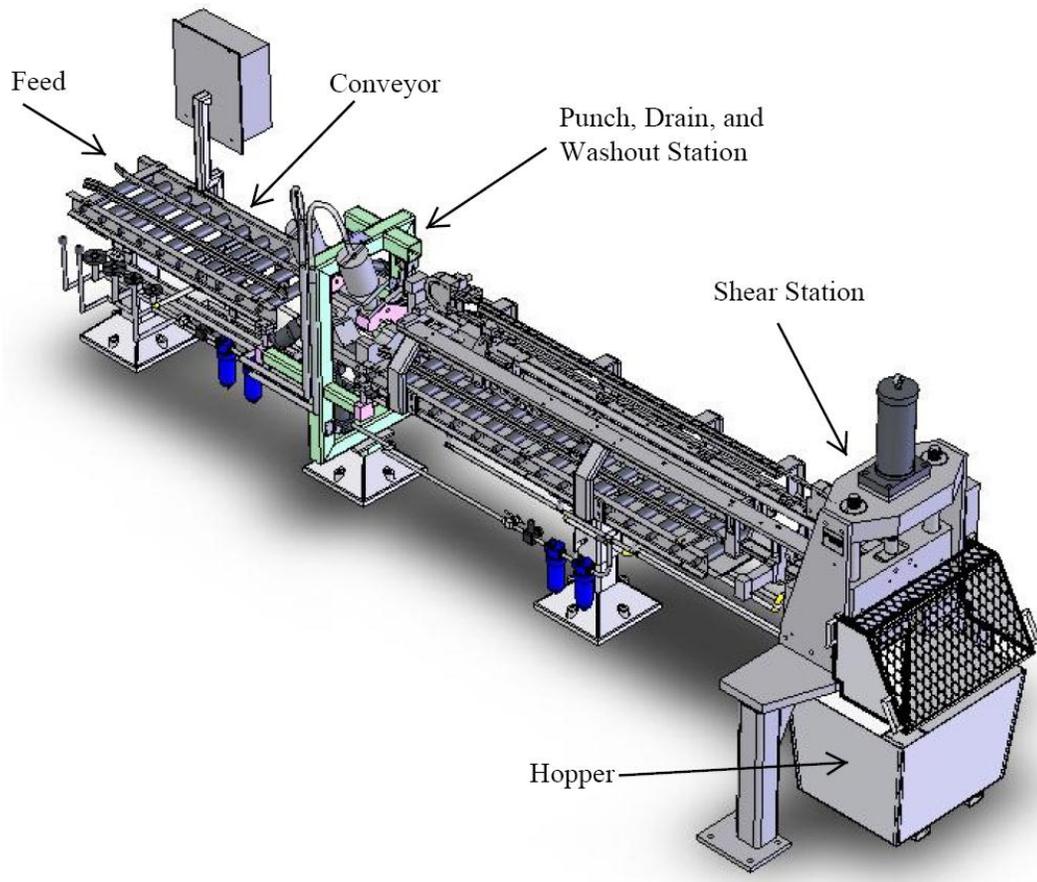
The RSM will punch holes in the warhead, drain the agent and flush the interior with high-pressure hot water. The chemical agent and the washout water will be transferred in separate streams for further processing. Once the agent has been removed, the warhead is then cut into four pieces, which will be transferred to the Energetics Batch Hydrolyzer for further processing.



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This computer graphic illustrates the main components of the Rocket Shear Machine and the path, from left to right, a rocket would take in moving through the system.