



## Nerve Agent Neutralization

Neutralization was the technology selected to destroy the stockpile of nerve agent (GB, or "Sarin," and VX) contained in rockets and projectiles at the Blue Grass Army Depot. The last chemical weapon was destroyed at the Blue Grass Chemical Agent-Destruction Pilot Plant July 7, 2023.

### How Neutralization Works

During the neutralization process, the munitions were taken apart and the nerve agent drained and separated from the weapons' explosive components (energetics). The nerve agent was mixed vigorously with hot water and sodium hydroxide to destroy, or neutralize, it. The resulting product, known as hydrolysate, was held and tested to ensure chemical agent destruction. After testing confirmed the destruction of the nerve agent, the hydrolysate was shipped to a permitted hazardous waste treatment, storage and disposal facility for further processing in accordance with environmental permitting.

Gases were filtered through a series of High-Efficiency Particulate Air (HEPA) and carbon filters before being released into the atmosphere.

During the projectile destruction campaigns, metal parts from munitions were heated to 1,000 degrees Fahrenheit for a minimum of 15 minutes to achieve thermal decontamination. The metal parts then were safely recycled.

During the rocket destruction campaigns, the drained warheads were containerized and sent for temporary storage on the [Blue Grass Army Depot](#) to await further destruction in a [Static Detonation Chamber](#) unit, which uses thermal destruction technology to process the weapons. The rocket motors were packaged, temporarily stored and sent to Anniston, Alabama, to be destroyed in a Static Detonation Chamber.

Learn more about neutralization by watching these videos:

[Nerve Agent Destruction in the United States](#)

[This System Will Drain Chemical Agent](#)



*An Agent Neutralization Reactor stands in the Munitions Demilitarization Building at the Blue Grass Chemical Agent-Destruction Pilot Plant. Nerve agent drained from rockets and projectiles was pumped to this reactor and mixed with hot water and sodium hydroxide to neutralize the agent. The resulting product was known as hydrolysate.*

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