



Nerve Agent Neutralization

Neutralization is 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.

How Neutralization Works

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

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

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

During the rocket campaigns, the drained warheads are containerized and sent for temporary storage on the Blue Grass Army Depot to await further destruction in a Static Detonation Chamber unit. The rocket motors are packaged, temporarily stored and will be 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 is pumped to this reactor and mixed with hot water and sodium hydroxide to neutralize the agent. The resulting product is known as hydrolysate.

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