

AGENT STORAGE

Chemical agents in the United States are stored either in bulk or as weapons. The difference is important because the way chemical agents are stored determines how they must be destroyed.

Bulk storage is found at:

Aberdeen Chemical Agent Disposal Facility in Aberdeen/Edgewood, Maryland
Newport Chemical Agent Disposal Facility in Newport, Indiana

Weaponized storage is found at:

Anniston Chemical Agent Disposal Facility in Anniston, Alabama
Blue Grass Chemical Activity in Richmond, Kentucky
Pine Bluff Chemical Agent Disposal Facility in Pine Bluff, Arkansas
Pueblo Chemical Depot in Pueblo, Colorado
Tooele Chemical Agent Disposal Facility in Tooele, Utah
Umatilla Chemical Agent Disposal Facility in Hermiston, Oregon
and previously at the Johnston Atoll Chemical Agent Disposal System, Johnston Atoll

M55 ROCKETS

The weapon in the US chemical stockpile causing notable safety concerns is the M55 rocket. The M55 is currently stored at four locations: Anniston, Blue Grass, Pine Bluff, and Umatilla. The last M55 rocket at Johnston Atoll was destroyed in March 1997 and the last M55 rocket at Tooele was destroyed in November 2003. Depletion of the stabilizer of the rockets' propellant could cause the rocket to self-ignite.

The manufacturer of the propellant has estimated that there is less than a one-in-a-million chance that a non-leaking M55 rocket will self-ignite before 2013. However, rockets with internal leaks may have shorter storage lives if the propellant comes in direct contact with a chemical agent. The Army's 1995 report, *M55 Rocket Storage Life Evaluation*, asserted that these rockets are safe to store until their scheduled destruction in 2004. Delays in the US destruction program will almost surely prevent the destruction of all the remaining M55 rockets by the conclusion of 2004. Further research concerning the M55 is currently being conducted by the US Army's Enhanced Stockpile Surveillance Program.

BULK STORAGE

STEEL CONTAINERS

- Ton containers
- Developed in WWI
- Most reconditioned in the mid to late-1980s. Reconditioning entailed grinding each container to bare metal, primer painting, applying a heat-reflective silver coating, and obtaining a gross weight.
- Contain sulfur mustard, sarin, VX, or tabun

WEAPONIZED STORAGE

ROCKETS

- **M55 115 mm**
 - Produced in the late 1950s for battlefield use
 - Contains 10.7 lbs of sarin or 10 lbs of VX nerve gas
 - Recognized by three green bands on body
 - Storage life without auto-ignition is estimated to be from 27 to 100 years of the date of manufacture
 - 478,000 rockets in the US stockpile
 - Stored at Anniston, Blue Grass, Johnston Atoll, Pine Bluff Umatilla, and Tooele
 - All M55 rockets at Johnston Atoll destroyed as of March 1997
 - All M55 rockets at Tooele destroyed as of November 2003
- **M56 Rocket Warhead**
 - Contains sarin or VX nerve agent

BOMBS

- **MC-1 bomb:**
 - 750 lbs
 - Contains 220 lbs of sarin nerve agent
- **MK-94-O bomb:**
 - 500 lbs
 - Contains 108 lbs of sarin nerve agent

- **MK116 bomb:**
 - Weteye bomb contains 347 lbs of sarin nerve agent

PROJECTILES

- **105mm Howitzer projectiles:**
 - M60 gas contains 3 lbs of sulfur mustard blister agent.
 - M360 gas contains 1.6 lbs of sarin nerve agent.
- **155mm Howitzer Bursting projectiles:**
 - M104 contains 11.7 lbs of sulfur mustard blister gas.
 - M110 contains 11.7 lbs of sulfur mustard blister gas.
 - M121 contains 6.5 lbs of sarin nerve gas.
 - M121A1 contains 6.5 lbs of sarin or 6 lbs of VX nerve gas. The weapon also has a supplementary charge of 0.3 lbs TNT.
 - M122 contains 6.5 lbs of sarin nerve gas.
- **203 mm or 8-inch projectiles:**
 - M426 contains 14.5 lbs of sarin or VX nerve gas.
- **Mortar projectiles**
 - M2 107 mm 4.2-inch contains 6 lbs of sulfur mustard blister gas.
 - M2A1 107 mm 4.2-inch differs from the M2 because it has an aluminum pressure plate instead of a steel one.

CARTRIDGES

- 105 mm cartridges contain sulfur mustard blister and sarin nerve agent.
- 4.2 inch cartridges contain sulfur mustard blister agent.

LANDMINES

There is one main type of land mine stored at US chemical demilitarization sites – the M23 13-inch contains 10.5 lbs of VX nerve agent.

SPRAY TANKS

Aircraft spray tanks produce a cloud of agent, though the vapor can also be invisible. Both the TMU-28 and TMU-28/B tanks contain 1,356 lbs of VX nerve agent.