

FORMER PRODUCTION FACILITIES DEMOLITION

On December 28, 2006, the U.S. Army Chemical Materials Agency Non-Stockpile Chemical Materiel Project (NSCMP), now U.S. Army Chemical Materials Activity Recovered Chemical Materiel Directorate (CMA RCMD) completed demolition of the nation's former chemical warfare production facilities. This completion was a direct task from the Department of Defense (DoD) resulting from the United States' ratification of the Chemical Weapons Convention (CWC). This treaty required all production facilities to be destroyed by April 29, 2007, a milestone the United States reached four months early. As part of the CWC, reports on the former production facility demolition were provided to the Organisation for the Prohibition of Chemical Weapons (OPCW) executive council, an international organization that oversees implementation of and compliance with the CWC.

The United States established the capability to produce chemical weapons as a strategic deterrent to potential adversaries. From the 1920s to the early 1990s, the United States produced an inventory of rockets, bomblets, landmines and

other munitions capable of delivering nerve, blister and hallucinogenic chemical agents. The United States ended its chemical warfare program after entering into international agreements that led to a worldwide chemical weapons ban.



The Newport Flare Tower was included in the three-phase demolition project that began in 1998 and was completed July 2006 to destroy the former chemical weapons production facility at Newport Chemical Depot, Indiana.

NAME	LOCATION	COMPLETED
BZ Production Facility	Swannanoa, NC	1964
Phosphate Development Works	Muscle Shoals, AL	1993
DC Production Facility	Rocky Mountain Arsenal, CO	1995
BZ Fill Facility	Pine Bluff Arsenal, AR	1999
APG Pilot Plant Complex	Aberdeen Proving Ground, MD	1999
HD Distillation Facility	Rocky Mountain Arsenal, CO	2001
Mustard (HD) Fill Facility	Rocky Mountain Arsenal, CO	2002
GB (sarin) Production and Fill Facility	Rocky Mountain Arsenal, CO	2003
Newport VX Production and Fill Facility	Newport Chemical Depot, IN	2006
Mustard Production, Distillation and Fill Facility	Aberdeen Proving Ground, MD	2006
Integrated Binary Production Facilities (DC, QL and DF)	Pine Bluff Arsenal, AR	2006



FORMER PRODUCTION FACILITIES DEMOLITION – TIMELINE



1999

- Completed demolition of Pilot Plant Complex at Aberdeen Proving Ground, Maryland. Originally constructed to produce uniforms to protect soldiers from chemical agent exposure, the plant produced the G-series nerve agents in the mid 1940s.
- Completed demolition of BZ Fill Facility at Pine Bluff Arsenal, Arkansas. The BZ Fill Facility filled munitions with the agent BZ.

1993

Completed demolition of Phosphate Development Works in Muscle Shoals, Alabama. The plant made precursor DC for the production of sarin nerve agent (GB) for use in production of chemical weapons at Rocky Mountain Arsenal.



1995

Completed demolition of the DC Production Facility at Rocky Mountain Arsenal, Colorado. DC, a precursor chemical, was used to make the nerve agent, sarin.

2001

Completed demolition of the HD Distillation Facility at Rocky Mountain Arsenal, Colorado. HD (mustard) is a blister agent used in World War I and produced in the United States in the 1940s.



**2006**

- Completed demolition of the Integrated Binary Production Facilities at Pine Bluff Arsenal, Arkansas, which produced binary precursor chemicals and binary munitions.
- Completed demolition of the Former Newport FX Production and Fill Facility site, which once manufactured 4,400 tons of the nerve agent VX.
- Completed demolition of HD Production, Distillation and Fill Facility located at Aberdeen Proving Ground, Maryland.

2002

Completed demolition of the Mustard (HD) Fill Facility at Rocky Mountain Arsenal, Colorado.

**2003**

Completed demolition of GB (sarin) Production and Fill Facility at Rocky Mountain, Arsenal. GB is a nonpersistent nerve agent.



FORMER PRODUCTION FACILITIES DEMOLITION

U.S. former production facilities

The CWC mandates destruction of all chemical weapons production facilities designed, constructed or used after January 1, 1946. The final facility to be completely destroyed in the United States was the Pine Bluff Integrated Binary Production Facilities, Pine Bluff Arsenal, Arkansas.

Newport Chemical Depot

Newport Chemical Depot, Indiana, housed the plant that produced the U.S. stockpile of the nerve agent VX. The plant produced approximately 4,400 tons of VX between 1961 and 1969. A two-phased demolition project began in 1998. The former chemical agent complex housed facilities for the four-step production (Steps 0, I, II and III) of nerve agent VX. The facilities used in the first three steps produced chemicals which, when combined with each other, made the nerve agent VX. The facilities associated with Step III manufactured the VX. Steps 0, I and II were destroyed in the first phase of the demolition project. Step III demolition work was completed April 22, 2006. The final treaty inspection report was signed July 20, 2006.

Pine Bluff Arsenal

Pine Bluff Arsenal, Arkansas, once housed two former production facilities. Destroyed in 1999, the BZ Fill Facility filled munitions with the agent BZ, a hallucinogen similar to Lysergic Acid Diethylamide (LSD). The Integrated Binary Production Facilities (IBPF), which comprised of the DC, QL and DF facilities, produced DF, a GB agent precursor chemical and the M20 canister, a binary munition.

Demolition of the QL Facility began October 2003 and was destroyed June 2004. Demolition of the DC Facility began May 2004 and was completed December 2004. The last structure demolished at the IBPF, the DF Multiple Launch Rocket System Injector Tube Fill Building, was temporarily converted in 2005 to be used as a chemical agent destruction facility for the neutralization of DF and QL binary chemicals. The DF and QL neutralization operations were completed September 2006. Destruction of the DF facility was then resumed and completed December 2006.

With the elimination of equipment designed for use in the IBPF, the United States achieved the 80 percent destruction mark, a full 16 months ahead of schedule. The milestone became official March 23, 2004, when the DoD made its formal semi-annual report on its CWC treaty progress to the OPCW.

Rocky Mountain Arsenal

Rocky Mountain Arsenal (RMA) demolished four facilities on its Commerce City, Colorado, installation. This operation was completed independent of NSCMP. RMA demolished the DC Production Facility in 1995, the Mustard (HD) Fill Facility in 2002, the HD Distillation Facility in 2001, and the GB (sarin) Production and Fill Facility in 2003. GB is the nonpersistent nerve agent sarin, while DC, a precursor chemical, was used to make sarin. Mustard (HD) is a blister agent produced in the United States until the 1940s.

Aberdeen Proving Ground

Completed in 1942, the Pilot Plant Complex, Aberdeen Proving Ground, Maryland, originally produced chemically coated uniforms to protect soldiers from exposure to mustard agent. Production of chemical warfare materiel and chemical agents such as G-series nerve agents and incapacitating agents began in the mid 1940s. Research and development activities on chemical agents and binary chemical weapons occurred until plant closure in 1986. The complex consisted of a main structure and eight support buildings. Workers demolished six of the support buildings in 1998, completing destruction December 1999. One additional building, the Mustard Distillation and Fill Facility, was declared and demolished in 2006.

Muscle Shoals

The Department of the Army finished destruction of Phosphate Development Works in Muscle Shoals, Alabama, August 1993. This operation was completed independent of NSCMP. The plant made the precursor DC. DC was used in the production of GB (sarin) nerve agent for use in production of chemical weapons at RMA.

