



# Program Executive Office, Assembled Chemical Weapons Alternatives Overview

The Program Executive Office, Assembled Chemical Weapons Alternatives, or PEO ACWA, is responsible for the destruction of the remaining U.S. chemical weapons stockpile in Colorado and Kentucky. ACWA was originally established by Congress to test and demonstrate alternative technologies to baseline incineration.

## Background

In 1997, Congress established the ACWA program to safely test and demonstrate at least two alternative technologies to the baseline incineration process for the destruction of the U.S. stockpile of assembled chemical weapons. Assembled chemical weapons are configured with fuzes, explosives, propellants, chemical agents, shipping and firing tubes and packaging materials.

Congress authorized ACWA to manage the development and pilot-scale testing of these technologies in 1999. Public Law 104-208 stated that funds would not be allocated for a chemical weapons disposal facility at Blue Grass Army Depot until the Secretary of Defense certified demonstration of six incineration alternatives.

After successfully demonstrating three technologies in 1999 and three more in 2000, ACWA determined that four were viable for pilot testing.

The ACWA program was assigned responsibility for the destruction of the remaining U.S. chemical weapons stockpile in Colorado and Kentucky in October 2002 under Public Law 107-248. In July 2002, the Department of Defense (DOD) selected neutralization followed by biotreatment for the chemical weapons stockpile in Colorado.

In November 2002, the DOD selected neutralization followed by supercritical water oxidation, or SCWO, for the destruction of the chemical weapons stockpile in Kentucky.

ACWA shifted its focus from assessing chemical weapons disposal technologies to implementing full scale pilot testing of the selected alternative technologies at these sites. As a result, the program changed its name from Assembled Chemical Weapons Assessment to Assembled Chemical Weapons Alternatives in June 2003, to better reflect new program goals.

In 2007, ACWA was formally activated as the U.S. Army Element, Assembled Chemical Weapons Alternatives under the U.S. Army Materiel Command from which it received administrative and logistical support while continuing to report directly to the DOD.

Effective Oct. 1, 2012, ACWA was designated Program Executive Office, Assembled Chemical Weapons Alternatives and administratively assigned to the U.S. Army Acquisition Support Center. This transition

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(410) 306-4024





was directed to raise the program's visibility within the Defense establishment in order to facilitate obtaining the support and resources necessary for the increasingly dynamic progress of PEO ACWA. As mandated by law, the program's direct reporting connection to the DOD remained unchanged.

### **U.S. Army Pueblo Chemical Depot, Colorado**

The original stockpile stored at the [U.S. Army Pueblo Chemical Depot](#) consisted of 2,613 U.S. tons of mustard agent in projectiles and mortar rounds. PEO ACWA worked together with the community to select [neutralization followed by biotreatment](#) to destroy the chemical weapons stockpile stored at the depot. Additionally, [Static Detonation Chamber](#), or SDC, technology was selected to augment the baseline technology to destroy problematic chemical munitions that cannot be easily processed through the main plant. The [Explosive Destruction System](#), a type of explosive destruction technology, destroyed problematic munitions in Pueblo from 2015 to 2018.

In September 2002, Bechtel Pueblo was selected as the systems contractor responsible for the design, construction, systemization, pilot testing, operations and closure of the Pueblo Chemical Agent-Destruction Pilot Plant, or PCAPP. The plant successfully initiated destruction operations in the main plant on Sept. 7, 2016. Agent destruction operations are targeted for completion by the Chemical Weapons Convention treaty commitment of Sept. 30, 2023. U.S. Public Law mandates stockpile destruction by Dec. 31, 2023.

The [Colorado Chemical Demilitarization Citizens' Advisory Commission](#) represents community interests related to the destruction of the chemical weapons stockpile. It provides a vital link between the Pueblo community and the DOD by providing a forum for exchanging information about chemical weapons destruction.

### **Blue Grass Army Depot, Kentucky**

The original stockpile stored at the [Blue Grass Army Depot](#) consisted of 523 U.S. tons of nerve and mustard agents in rockets and projectiles. PEO ACWA is using [neutralization](#) as the technology to destroy the chemical weapons stored at the depot. Additionally, the [SDC](#) was selected to augment the main plant technology to destroy all mustard agent projectiles, many of which were unsuited for processing through the main plant. SDC technology was also selected to process drained rocket warheads and overpacked rockets from the nerve agent stockpile to augment main plant destruction.

In June 2003, Bechtel Parsons Blue Grass was selected as the systems contractor responsible for the design, construction, systemization, operation and closure of the Blue Grass Chemical Agent-Destruction Pilot Plant. The Blue Grass SDC began operations on June 7, 2019, and main plant operations began on Jan. 17, 2020. In 2020, the decision was made to not use the SCWO system to process plant wastewater due to multiple issues discovered during testing that raised safety and reliability concerns. As such, the hydrolysate produced from the neutralization of chemical agent is being shipped off site to a permitted treatment, storage and disposal facility. Agent destruction operations are targeted for



completion by the Chemical Weapons Convention treaty commitment of Sept. 30, 2023. U.S. Public Law mandates stockpile destruction by Dec. 31, 2023.

The [Kentucky Chemical Demilitarization Citizens' Advisory Commission](#) serves as a bridge between the community and the DOD by providing a forum for exchanging information about chemical weapons disposal. The Kentucky Citizens' Advisory Commission has an independent subcommittee, the Chemical Destruction Community Advisory Board, which is made up of a diverse group of community leaders who represent the local community on issues regarding Kentucky's chemical weapons destruction program. The board's primary objective is to share information with the community and provide input to government decision-makers.

### **ACWA Headquarters and Anniston Field Office**

PEO ACWA headquarters is located at Aberdeen Proving Ground (APG), Maryland. The U.S. Army established the proving ground in 1917 to support U.S. warfighters, and in 1918, the Edgewood Arsenal, now part of APG, began production and testing of chemical weapons. In 2006, the U.S. Army Chemical Materials Agency completed destruction of the chemical weapons stockpile stored at the Edgewood Area.

In 2014, PEO ACWA established the Anniston Field Office at the Anniston Army Depot, Alabama. The Anniston team brings technical expertise and experience to the program after destroying the chemical weapons stockpile at the Anniston Army Depot. The active SDC in Anniston provided opportunities for Blue Grass and Pueblo operators to work with experienced employees and complete training to operate SDC technology. In addition, the Anniston SDC augments the PEO ACWA facilities by destroying non-contaminated explosive components.