

**Department of Defense Report
Chemical Demilitarization Program
Semi-Annual Report to Congress**



**Office of the Under Secretary of Defense for Acquisition,
Technology and Logistics**

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Department of Defense (DoD) Chemical Demilitarization Program (CDP) Semi-Annual Report to Congress for March 2011

EXECUTIVE SUMMARY

As required by section 1421 of the Ike Skelton National Defense Authorization Act for FY 2011 (Public Law (PL) 111-383), the March 2011 Department of Defense (DoD) Chemical Demilitarization Program (CDP) Semi-Annual Report to Congress presents information describing the DoD's progress toward destruction of the U.S. stockpile of lethal chemical agents and munitions by the Chemical Weapons Convention (CWC) deadline of April 29, 2012, but not later than December 31, 2017, and provides the status of ongoing actions to accelerate the program.

The U.S. Army Chemical Materials Agency (CMA) is responsible for the destruction of 90 percent of the U.S. stockpile declared under the CWC located at seven sites: Johnston Atoll; Aberdeen, Maryland; Anniston, Alabama; Tooele, Utah; Pine Bluff, Arkansas; Newport, Indiana; and Umatilla, Oregon. The Assembled Chemical Weapons Alternatives (ACWA) Program is responsible for destroying the remaining 10 percent of the declared chemical weapons stockpile located at Pueblo, Colorado, and Blue Grass, Kentucky.

As of February 13, 2011, the CMA sites have destroyed 84.0 percent of the U.S. chemical weapons stockpile declared when the CWC entered into force. Destruction operations at Johnston Atoll; Aberdeen, Maryland; Newport, Indiana; and Pine Bluff, Arkansas were completed in 2000, 2006, 2008, and 2010, respectively. The remaining three CMA sites are on track to complete destruction operations before the Treaty deadline. Destruction facilities at Pueblo and Blue Grass are currently under construction.

The DoD continues to: (1) be on pace toward CMA completing destruction operations at the Alabama, Utah and Oregon facilities utilizing performance incentives and risk mitigation actions; and (2) continue to move the ACWA Program forward while conducting a statutory Nunn-McCurdy Breach certification process. Completion of the Nunn-McCurdy review process may lead to significant changes to the schedule and cost estimate.

The DoD will continue working to minimize the time required to complete destruction of the remaining chemical weapons stockpile, without sacrificing safety and security.

Chemical Demilitarization Program

Semi-Annual Report to Congress

March 2011

INTRODUCTION

This report provides: (1) the DoD's progress toward destruction of the U.S. stockpile of lethal chemical agents and munitions by the Chemical Weapons Convention (CWC) deadline of April 29, 2012, but not later than December 31, 2017; and (2) the status of ongoing actions to accelerate the program.

REPORTING REQUIREMENTS

Section 1421 of the Ike Skelton National Defense Authorization Act for FY 2011 (PL 111-383) includes a semi-annual reporting requirement on the implementation by the U.S. of its chemical weapons destruction obligations under the CWC.

DoD PATH FOR DESTRUCTION COMPLETION

In 2008, the DoD conducted assessments to define alternatives for destroying the remaining chemical weapons stockpile by the 2012 CWC deadline, but not later than the 2017 congressionally mandated deadline. The Department identified for evaluation, three options to destroy the remaining chemical weapons stockpile:

(1) provide performance incentives to ensure destruction is complete at CMA sites by April 29, 2012; (2) transport portions of the stockpile to operational chemical weapons destruction facility locations; and (3) accelerate the ACWA Program sites' destruction schedules. The DoD concluded that no realistic options are available to destroy the complete U.S. stockpile by the CWC deadline of April 2012. The only option with any reasonable probability of success to achieve the congressionally mandated destruction deadline of 2017 was transportation of the stockpile to currently operating destruction facilities; however, this option is currently precluded by law.

As reported in the May 2009 CDP Semi-Annual Report to Congress and as reflected in the FY 2012 President's Budget Request, the DoD path forward is to: (1) aim toward CMA completing destruction operations by April 29, 2012, using performance incentives and risk

Semi-Annual Report under Section 1421 of Public Law 111-383 [to be codified at 50 U.S.C. 1521(j)]

The report shall include:

- The anticipated schedule at the time of such report for the completion of destruction of chemical agents, munitions, and materiel at each chemical weapons demilitarization facility in the U.S.
- A description of the options and alternatives for accelerating the completion of chemical weapons destruction at each such facility, particularly in time to meet the stockpile elimination deadline (currently 2017).
- A description of the funding required to achieve each of the options for accelerated destruction, and a detailed life-cycle cost estimate for each of the affected facilities included in each such funding profile.
- A description of all actions being taken by the U.S. to accelerate the destruction of its entire stockpile of chemical weapons, agents, and materiel in order to meet the current destruction deadline under the CWC of April 29, 2012, or as soon thereafter as possible.

mitigation actions; and (2) accelerate the ACWA Program schedule milestones from its Acquisition Program Baseline by working toward completing destruction of the Colorado stockpile on-site by 2017 and the Kentucky stockpile on-site by 2021.

Tables 1 and 2 are the program cost and schedule estimates for the ACWA Program.

Table 1. CDP FY12 President’s Budget Request Cost Estimate (Then Year \$M)

Project/ FY	Prior	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total
CMA	19,217.5	1,081.4	1,152.7	873.4	734.3	280.7	197.4	693.2	24,230.6
ACWA	2,854.6	510.9	477.1	568.9	678.0	707.8	688.5	2,777.4	9,263.2
Total	22,072.1	1,592.3	1,629.8	1,442.3	1,412.3	988.5	885.9	3,470.6	33,493.8

CMA– U.S. Army Chemical Materials Agency

ACWA – Assembled Chemical Weapons Alternatives

Table 2. CDP Selected Acquisition Report Schedule Estimate

	CMA			ACWA	
	TOCDF	ANCDF	UMCDF	PCAPP	BGCAPP
Begin Operations	Aug-96	Aug-03	Sep-04	Aug-14	Oct-18
Complete Operations	Jan-12	Feb-12	Jan-12	Dec-17	May-21

TOCDF – Toole Chemical Agent Disposal Facility

PCAPP – Pueblo Chemical Agent-Destruction Pilot Plant

ANCDF – Anniston Chemical Agent Disposal Facility

BGCAPP – Blue Grass Chemical Agent-Destruction Pilot Plant

UMCDF – Umatilla Chemical Agent Disposal Facility

Note: Current CMA schedule estimates are based on the December 2009 SAR and ACWA schedule estimates are based on the September 2010 Exception SAR.

ONGOING ACTIONS TO ACCELERATE DESTRUCTION

The DoD continues to review technical possibilities to eliminate portions of the ACWA Program chemical weapons stockpile earlier than current plans. The May 2009 Semi-Annual Report identified the use of Explosive Destruction Technologies (EDTs) at the Kentucky site as a possible option to accelerate destruction efforts. An EDT could be used for problematic chemical munitions as a supplement to the neutralization destruction operations. The program continues to develop and evaluate options that will safely and efficiently accelerate the program.

The Colorado site has long planned to use an EDT to destroy existing overpacked (leaking or previously sampled munitions) munitions and rejects (those munitions introduced into the process and found to be unsuitable for processing by the plant’s automated destruction equipment). The original estimate was approximately 1,000 munitions but is now likely to be greater as suggested by the experience of the U.S. Army Chemical Materials Agency first of a kind equipment testing. The DoD continues to analyze the use of EDT during the ACWA destruction schedule to destroy overpacked and reject munitions, as well as a limited number of other items to mitigate program risk and to increase confidence in meeting the December 2017 congressionally mandated destruction deadline. The Department is also conducting an analysis under the National Environmental Policy Act.

Performance incentives and risk mitigation actions at CMA's destruction facilities have resulted in further shortening of the schedule and projected life cycle cost reductions. The CMA completed destruction operations on November 12, 2010, at the Pine Bluff Chemical Agent Disposal Facility (PBCDF). The PBCDF has begun its facility closure phase. During this time the disposal facility will be decontaminated and dismantled in accordance with the site's Resource Conservation and Recovery Act permit. Closure is expected to last approximately 2 years.

NUNN-McCURDY REVIEW

In December 2010, the Department notified Congress pursuant to title 10, U.S. Code, section 2433 ("Unit cost reports"), which is commonly referred to as the Nunn-McCurdy statute, of an increase of the Program Acquisition Unit Cost (PAUC) for the ACWA Program. An independent assessment of the ACWA Program cost estimate concluded the PAUC exceeds the current Baseline Estimate by at least 25 percent. Based on this determination, the Department will:

- Determine the root cause of the critical cost growth, and
- Conduct a detailed assessment to determine if any reasonable alternative is available to reduce the overall cost and shorten the destruction schedule.

During the review process, the fiscal resources necessary to continue the ACWA program will be provided. Construction and systemization at both sites will continue as programmed during this review process.

Completion of the Nunn-McCurdy review process may lead to significant changes to the schedule and cost estimate projections reflected in Tables 1 and 2.

CONCLUSION

The DoD is on pace to achieve destruction of 90 percent of its stockpile by April 2012. While the DoD's current path forward is not able to accommodate the December 31, 2017, deadline, the Department will continue to look for opportunities to eliminate the remaining chemical weapons stockpile ahead of current schedules without affecting safety and security.